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BILATERAL INTERPRETING: SOME WAYS OF ANALYSIS (GERMAN–UKRAINIAN / UKRAINIAN–GERMAN)

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Abstract: The paper provides a brief historical insight into the formation history of the types of interpreting in the translation tradition of Western Europe. The objective of our study is to reveal in detail the specifics of such subspecies of interpreting as bilateral interpreting from the linguistic, psychological, and pragmatic points of view. Depending on the requirements, interpreting can be both simultaneous and consecutive. The topicality of our research consists of the fact that bilateral interpreting receives insufficient attention from the point of view of translation studies, psycholinguistics, and pragmatics when it comes to teaching interpreting to students. Relevant is also the fact that the analysis of Ukrainian-German and German-Ukrainian bilateral interpreting has hardly been investigated in Ukraine as opposed to Ukrainian-English and English-Ukrainian interpreting. The paper contains the results of the experiment focused on the practical application of bilateral interpreting by the students of the translation department.

Key words: translation studies, interpreting, technology of interpreting, bilateral interpreting, psycholinguistics, pragmatics, Ukrainian-German, and German-Ukrainian interpreting, experiment.

1 Introduction

Interpreting was the only type of transferring thoughts in other languages until people began to write and perform translation along with it.

To this day, the oldest monuments that testify to the existence of interpreting in ancient times are texts from the Egyptian pyramids, dated about 3,000 years before Christ. At that time, all cultural, economic, political, and military communications in the Middle East were mediated by diplomats with a knowledge of foreign languages, the so-called dragomans. The word dragoman *(translator, ambassador, interpreter)* comes from Arabic, used since the 12th century and adopted from the business lexicon of the Great Steppe Army Empire and Ottoman Empire. The term was used in the records of the Zaporizhian Host, Zaporizhian Host Empire, Russian Empire, etc.

In those far-off days, liaison interpreting (Verhandlungsdolmetschen) for the representatives of different linguistic cultures was the only usual form of interpreting. At that time, interpreting was performed in a short period, usually sentence by sentence.

Over time, with the need to establish more intensive contacts between countries and people, such a form of interpreting as speech interpreting (Vortragsdolmetschen) has developed. Speech interpreting provided for interpreting longer and more extensive speeches/conversations.

Interpreting was performed by amateurs with a knowledge of several foreign languages. This form of interpreting had no theoretical basis, compared to the existing form of translation, and was not considered as a separate mediation activity of an interpreter, nonetheless, it initiated the further development of the professional activity of an interpreter. As early as 1000 AD, interpreters were trained in Asia.

At the beginning of the 12th century, the French Emperor was invited to establish a school for interpreters, whose graduates were to serve as interpreters during the Crusades to the Holy Land (im Heiligen Land).

At that time, one of the first European schools for dragomans was established in Constantinople. Its graduates entered military service (Best, Kalina, 2002: 30-32).

Liaison interpreting (Verhandlungsdolmetschen), or in other words (communicative) conversation interpreting (Gesprächsdolmetschen), is widely practiced nowadays. We should note that there are some differences in the scope of application of a particular interpreting technology, and different standards are used when applying one of the technologies. The interpreting standard should be understood as a set of requirements for the quality and adequacy of interpreting. When, for example, politicians or businesspeople engage in negotiations, the standards of consecutive interpreting (Konferenzdolmetschen / conference interpreting) are usually applied. Speaking of different interpreting standards, we should note that in the field of medicine consecutive interpreting is used, but its standards differ from interpreting in other fields of science. This is because the attention during interpreting in the field of medicine is placed not on the text (Wortlauf), but on the perception/understanding of what is being said, in other words on the communication of the speaker's intention. This means that the main task (standard) of interpreting in the field of medicine is to correctly communicate information about prescriptions, recommendations, following qualified and professional instructions, and taking the right measures to implement them to the recipient. For clarity, let us consider another case, namely the standards of interpreting in the legal sphere. At the time of interrogating of suspects or interviewing witnesses, conducting court proceedings, etc., word for word interpreting is especially emphasized, as every word can contain important information, and therefore in the legal sphere decisions of the investigative body and judges, as well as fates of people depend on interpreting quality level. We should note that every German-speaking country has completely different legal and judicial provisions, and therefore terminological concepts in these fields also differ.

Therefore, as we can see, the effective standards for consecutive interpreting in various fields of human activity significantly differ.

Based on the relevant scientific developments regarding the application of interpreting standards across a range of fields of human activity that are quite intertangled, but with different statuses of specialists and technologies involved in these fields, the concept of community interpreting (Kommunaldolmetschen) has emerged (Pöchhacker 2000: 33).

The Austrian translation theorist *Franz Pöchhacker* covers all the other of the above-mentioned types of interpreting (community interpreting), depending on the field of activity (settings) and considers conversation interpreting *(Gesprächs)*, liaison interpreting *(Verhandlungs-)*, and court interpreting *(Gerichtsdolmetschen)* as *community interpreting – Kommunaldolmetschen vs. Konferenzdolmetschen* (Pöchhacker 2004). Almost until the first half of the 20th century, all types of interpreting of short and long segments were performed consecutively.

Along with the above-mentioned types of interpreting there also was the so-called chuchotage (Flüsterdolmetschen). The word chuchotage comes from French and means to whisper.

The prototype of the technical means for chuchotage was Hushaphone (variants: Hush-a-Phone, Hush a Phone), a device that was used to connect a phone to the transmitter in order to reduce noise during a phone call and to increase privacy. Chuchotage (*professional slang*) is a type of interpreting with the help of special technical means—a small portable device (transmitter) with a built-in microphone, the so-called "whisperer," for an interpreter complete with a portable device with headphones (receiver) for recipients. Thanks to the whisperer an interpreter can either be next to the speaker or sit next to the participants of a *conference, workshop, presentation*, etc. Participants get receivers with headphones, and the interpreter whispers the translation into the microphone. This type of interpreting became an intermediary step between consecutive and simultaneous and is considered to give birth to simultaneous interpreting. Nowadays, it is also used in certain situations, when interpreting is performed for a small group of people and there are no technical means for simultaneous interpreting in the room: during press conferences, press releases, interviews, etc.

During international conferences, world symposia, United Nations and European Parliament meetings, simultaneous interpreting is the most common type of interpreting. It is performed (almost) simultaneously with the speaker's speech, and its essential attributes are soundproof booths equipped with microphones, headphones, speakers, etc. Since this type of interpreting is physically stressful and exhausting, it is usually performed alternately by several professionally trained simultaneous interpreters.

Due to the intensive use of interpreting mediation in the first half of the 20th century, the first scientific publications (Wirl 1958: 34) on the issues of interpreting and its impact on the situation of mediated inter-language communication began to appear in foreign publications. These studies primarily addressed such issues as linguistic factors that hamper the interpreting process. For example, it has been suggested that consecutive interpreting during conferences, symposia, etc., firstly, constantly disrupts the speakers' speech, because of the need to interrupt it for interpreting, and secondly, the duration of interpreting increases, especially when consecutive interpreting is alternately performed in several languages. This factor has significantly influenced the further use of consecutive interpreting during international conferences, forums, etc., and initiated the widespread use of simultaneous translation in international practice (Nuremberg trials against Nazis are considered the "baptism by fire" of simultaneous interpreting). "Successful experience of simultaneous interpreting in Nuremberg became a guarantee of its further spread in international life" (Saprykin, Chuzhakin 2011: 12). The advantage of simultaneous interpreting is that it can be performed in many languages at the same time. It should be noted that simultaneous interpreters are usually provided with the texts of reports or talking points.

Due to the wide use of interpreting and all the above-mentioned subtypes, in the 60s of the 20th century, it was allocated to a separate academic discipline. In the translation tradition of Western Europe, interpreting has become the subject of research of the interpreting studies – Dolmetschwissenschaft – and psycholinguistics – Psycholinguistik – as the scientific research of the ways and phenomena thanks to which people communicate with one another and find common ground through language, is possible only through interdisciplinary connections of linguistics (in this case, interpreting) with other branches of knowledge, especially psychology and pragmatics. Psycholinguistics studies the relationship between the use of language and such psychological processes as memory, attention, comprehension, and the main components of these processes (Snell-Hornby et al. 2006: 64–65). Therefore, the subject of research in psycholinguistics is – first of all – a language(s) speaker and their ability to master the language(s), comprehend the language(s), produce verbal expressions in the language(s). On the other hand, interpreting studies and psycholinguistics are closely related to pragmatics of human communication – in our case, at least bilingual communication –

and their relationship to the language structures of communication. Therefore, we also consider the pragmatic analysis of speech communications an important part of the study of all types of interpreting, as it empirically analyzes how the translator acts when practically using native and foreign languages.

2 Materials and Methods

In modern translation studies, interpreting is divided into three main types: "…consecutive, sight, and simultaneous" (Chernovatyi 2013: 252)*, "…consecutive interpreting and bilateral interpreting, simultaneous interpreting, and chuchotage" (Zinukova 2018: 19). These types are divided into several subtypes depending on the communication areas. Let us recall the definition of two main types of interpreting: if the speech of the interpreter follows the speech of the communication participant, then, in this case, interpreting is called CONSECUTIVE; if the speech of the interpreter coincides (almost) in time with the speech of the communication participant, then this type of interpreting is called SIMULTANEOUS. This classification characterizes the types of interpreting only with regard to the time of performing, while the task of our research is a more detailed exploration of such a subtype as bilateral interpreting from the linguistic, psychological, and pragmatic points of view. Depending on the requirements set, bilateral interpreting can be both simultaneous and consecutive. However, the researchers of interpreting "…have no common lens regarding the main characteristics of interpreting that determine its specificity" (Zinukova 2018: 19). In our opinion, it is bilateral interpreting – from the points of view of interpreting studies, psycholinguistics, and pragmatics – that today is given little attention in teaching students; this constitutes *the relevance* of our research. It is also relevant that bilateral interpreting in Ukrainian–German and German–Ukrainian directions are scarcely studied in Ukraine, in contrast with Ukrainian–English, and English–Ukrainian directions, in the field of which, over the years of independence, a large number of scientific articles (the most relevant are Demetska 2019; Zinukova 2018; Kobiakova 2016), four textbooks dedicated to interpreting (Shvachko 2004; Nesterenko 2004; Maksimov 2007; Saprykin; Chuzhakin 2011) and one textbook on the methodology of teaching of translation as a specialty, in which the 4th section is devoted to the teaching of interpreting (Chernovatyi 2013), has been published.

Modern textbooks for German-Ukrainian translation are the fundamental edition of the collective body under the management of an outstanding Ukrainian linguist and expert in translation studies, *Taras Kyiak* (Kyiak 2014), and the textbook of *Svitlana Syniehub* (Syniehub 2018), but these textbooks widely cover only the issues of translation.

Bilateral interpreting *(study object)* is divided into six subtypes: 1) paragraph-and-phrase interpreting – the speaker presents thoughts in small phrases, no more than a few sentences; 2) informal bilateral interpreting (without making notes) – interpreting of conversations, interviews, or just an exchange of remarks, when the situation allows not to make any notes (or make some minimal ones); 3) formal bilateral interpreting (without making notes) – interpreting of business conversations or interviews involving two or more speakers with relatively brief statements in different languages on a special topic; 4) bilateral interpreing (with making notes) – interpreting of formal conversations, interviews, speeches during press conferences, etc., on international (general-political) topic with relatively long statements (up to 3–5 minutes); 5) interpreting of monological speech (with making notes) – interpreting of monological speech (presentation, press release, speech, lecture, address, press conference, briefing, pledge, etc.) in public, indoors or outdoors (sometimes in unsuitable conditions, without sound amplification, with strong noise and noise interference); and 6) sight interpreting – this type combines the characteristics of both translation and interpreting. For this subtype of interpreting, the information is read from a specific medium

(paper, display, etc.) and then interpreted (Saprykin, Chuzhakin 2011: 47–51).

If the interpreting conditions require the interpreter's speech not to coincide in time with the speech of the dialogue participants, bilateral interpreting becomes consecutive. If there is no such condition, the interpreter can interpret the speech of the dialogue participants simultaneously. However, both dialogue participants' speeches and interpreting remain bilateral.

It is necessary to always take into account the fact that regardless of how the bilateral interpreting is performed – consecutively or simultaneously – it (the process) is endowed with certain characteristics that create its specificity, namely, distinguish it from other types of interpreting.

In fact, this is true, as it is not enough to consider only the time factor to characterize bilateral interpreting. After all, both interpreter – while performing bilateral interpreting – and teacher – while developing a methodology for the teaching of types of interpreting – should also keep in mind other factors that affect the nature of listening (comprehension) and interpreting *(the subject of research)*, actually labeling it – bilateral interpreting – as a special type of interpreting.

3 Results

In the professional activity of an interpreter, the place of bilateral interpreting is determined by its purpose. This purpose is to interpret the speech of the dialogue participants in cases when they use different language codes.

Today, bilateral interpreting is performed during negotiations, meetings, conversations, etc., as well as during the interview of witnesses who use foreign languages to respond. Quite often, this type of interpreting comes into the picture during such compositional forms of modern oral communication as press conferences (press releases) or discussions, which are usually based on a variety of alternations or shifts, the interpenetration of elements of spoken and literary languages, because, as the world-famous linguist and psychologist *Reveka Frumkina* notes, the way we speak reflects our inner world in a certain way. Many aspects of a person can be learned from their speech. For example, an educated and well-mannered person may understand *flash language*, but they will either not use it, or – if it is necessary – do it with care. Although in informal speech we express our thoughts quite spontaneously, such a person is unlikely to use words and phrases like *wheelman, queerdo, one can't be bothered*. They are subconsciously forbidden.

What should we understand by the term "colloquial speech?" Colloquial speech is neither vulgar tongue nor the talks of people on a bench. It is also neither the language spoken in literary works in the form of "direct speech" of characters nor the speech of a teacher at the blackboard, a speaker, a TV host. It is about the spontaneous, free speech of educated speakers of modern literary language. This speech is devoid of colloquialism and free from "street" slang and vernacularism.

Developing an idea, *Reveka Frumkina* identifies three features of the extralinguistic situation that encourage the use of colloquial speech: 1) unpreparedness and spontaneity of the speech act, 2) ease of utterance, and 3) direct participation of speakers in the speech act.

Regarding *ease*, it is determined by the presence of informal relations between the participants of the speech act. The speech of TV or radio hosts may – and sometimes even should – be perceived with ease. In fact, it is always deliberate and in style, and manner of speech is closer to the speech of educated people.

According to *Reveka Frumkina*, the features of colloquial speech lie in the fact that much of the information is not in the text of the utterance, but in the communicative situation as a whole (the so-called constitutiveness, namely, the determinability of colloquial speech) when the speaker (unconsciously, but

constantly) is guided by the fact that the listener can easily mark the necessary (although not available) information: after all, the listener is equally accessible to the multi-layered context of the communication situation.

What are the components of this context? First of all, they are the time and place of communication, which are common to participants, their facial expressions and gestures, features of communication style, namely speech etiquette, which is typical for this environment, etc. (Frumkina 2008: 194–210).

Bilateral interpreting is a specific form of communication with a mediator (connecting link) – an interpreter. The presence of this link has a certain impact on the speech of the communication partner. Thus, the speech of communication partners may be less spontaneous than dialogical speech in the field of everyday communication. On the other hand, communication partners tend to seek to adapt to the mediator, namely, to the interpreter. This circumstance also affects their speech to a certain extent, but it is still dialogical. Therefore, bilateral interpreting should be considered, first of all, as interpreting of such speech material that is inherent in the characteristics of dialogical speech (Metodyka navchannia inozemnykh mov u zahalnoosvitnikh navchalnykh zakladakh: pidruchnyk [Methods of Teaching Foreign Languages in General Educational Institutions: A Textbook] 2010: 147–152). These characteristics include a) limited amount of time for speech processing, b) spontaneity, c) wide use of colloquial forms of speech, and d) frequent use of imperfect external forms. In the dialogue, there is a rapid change of intonation, a motley alternation of various forms of speech melody, a wide range of extralinguistic means of communication, such as facial expressions, gestures, mobility (of movements), eye contact, poses of partners in conversation, etc. Direct interpreting is performed in the sounding of socially familiar speech formulas. In addition, dialogical speech is also distinguished by the fact that "it is a process of spoken interaction between two or more participants of communication" (Metodyka navchannia inozemnykh mov u zahalnoosvitnikh navchalnykh zakladakh: pidruchnyk [Methods of Teaching Foreign Languages in General Educational Institutions: A Textbook] 2002: 146–147).

The world-renowned psycholinguist *Oleksii Leontiev* notes that dialogical speech is based on the same general principles as "figurative memorization" of speech. In other words, dialogical speech is not programmed. It does not necessarily follow from the idea and thought that is internally formed by the subject, most often it is situational and incomprehensible without knowledge of this real situation or imaginary situation. Meanwhile, dialogical speech (chain reaction) is typically reactive, replica–response of interlocutor is a normal paraphrase or a repetition of a question or remark. According to the scientist, dialogical speech is based on the "stimulus-response" model. The replica of the first interlocutor most often allows a relatively small number of possible answers, at least in terms of content. The speech "function" of the second interlocutor is reduced to choosing the most probable of these possible answers – in this situation and for this subject. Thus, the connection of the first and second interlocutors' replicas is easiest to interpret with the help of an ordinary classical conditioning connection. This allows, by the way, "not to listen" to the interlocutor, who says that he knows he has a certain answer, and that allows laying out the lines, when one interlocutor has not finished talking, and the other one started talking, interrupting the first one (Leontiev 2005: 168).

Based on the aforesaid information, it is possible to ascertain, that in the dialogical speech the simultaneous interpreting is rather tangential from the psychological and pragmatic points of view, which subtype, as it was noted above, is bilateral interpreting.

Simultaneous interpreting is the least studied in Ukraine, especially regarding psychological and pragmatic issues. In our opinion, this means that a brief review of opinions on this type

of translation from the point of view of psycholinguistics and pragmatics in this study will be relevant.

Oleksii Leontiev is trying to present the most general psychological characteristic of simultaneous interpreting. In an optimal case, when there is a highly qualified translator with a high level of automation in the cabin (for simultaneous interpretation). A lot of automation, which we do not pay attention to, is based on a fairly accurate forecast of the probability of certain events. As the scientist further notes, the ability of a person to bring "meaning" and structure to a priori "unintelligible" language material has become an obstacle to psychological experiments on memorizing unintelligible syllables. But the same fact prompted scientists to investigate what our implicit knowledge of our speech, that is, what knowledge of speech skills is difficult to even imagine, it is a kind of monological speech, where the speech mediator (program) is programmed from the outside.

All other types of (simultaneous) interpreting have this characteristic in addition to oral interpreting. Common for several types (but not for all) of interpreting is such a feature, which can be characterized as resistance to isolated language units, that is, if in normal speech there is enough intermediary language (a person understands himself well and does not need any additional means to clarify and fix the content of the program, that is, the intermediary language), then in "synchronous speech," as a rule, in addition to the work associated with the programming of statements in general, the interpreter performs the work on the direct recoding of the language.

Developing his idea, *Oleksii Leontiev* states that simultaneous interpreting has one specific feature that distinguishes it from all other types of interpretation. This is the "gap" of the intermediary language, in other words, the simultaneous interpreter does not "push" the whole heard phrase into the program (intermediary language) in order to "unfold" this program (intermediary language) in a phrase in another language again, but performs this action with the individual components of the phrase, namely, with such (components), which in a certain sense are universal for expression in any language regardless of its structure.

As an illustrative example, *Alexei Leontiev* cited the translation of the phrase "*The skills of simultaneous listening and speech should be done in parallel with the study of a foreign language, not after mastering it.*" The translator will wait for the word "*speech*" and translate this component. Gap. "*Should be made*." Translation, gap. "*In parallel with the learning of a foreign language*." Translation. Gap and so on."

Already from the above example, we can see how the translation depends on the actual division (topic and comment) of the statement and in general on its logical structure. If the word "*parallel*" is clearly contrasted in the "*after*" speech, a pause and a "gap" should be expected before it, but if there is no such separation (and for the translator, the words "*not after*…" would be a surprise), it is possible that the "minimum unit of translation" is "*should be done in parallel with the foreign language learning*" (Leontiev 2005: 170).

Obviously, in simultaneous translation, the known "outrageous" effect is on the order of components in the language phrase and the "language of translation". Everybody has heard how mediocre simultaneous interpreters generate native language phrases with a known non-native syntactic organization, preferring the risk of forgetting some essential components of the statement when the "minimum translation unit" is increased. In terms, this problem, according to the scientist, can be described as a problem of grouping the components of the intermediary language (i.e. the program).

This points to the problem of external consumption of the target language (program) as a characteristic feature of all types of translation. The scientist notes that this opinion can be expressed

differently: in the translation, as you know, there is a certain invariant, which is constant when transforming the expression of the language 1 and the language of 2. (Here we are not talking about artistic translation, where the invariant is the dominant artistic structure of the work). What is the invariant for interpretation? It (invariant) is defined as "the community of the proclaimed… …of semantic content," as the identity of "elementary semantic units of the mediator language, put in accordance with this statement," as… the "direct, intuitive reflection" of connections and relations, finally, as "the same thoughts, feelings, desires." These definitions, according to the scientist, quite clearly fall into two groups depending on whether they are pronounced by linguists or psychologists… The first two definitions derive from the notion of the objective, substantive and logical identity of translation units… The other two definitions are more closely related to the true situation. However, both are not quite correct. However, both are not quite correct. After all, it is clear that "the same thoughts, feelings, desires" are not fully exhaustive and concrete formulation, even if we paraphrase it (formulation) and talk about the same subject and logical and emotional content and the same motivation." What (after all) is the interpretation invariant? *Oleksii Leontiev* considers (Leontiev 2005: 170–172), that such invariant is exactly the internal program (speech-mediator) of speech statement—the system of functionally "not loaded" by senses elements of the subject and image circle or the certain actions directed on these elements. And as the sense is the function of correlation of motivation and purposefulness of activity, then the choice of the program is caused by previous experience of a human organism (probable forecasting), and the structure of the program (language–intermediary) – by factors of a situation and context, as all these factors are relevant at translation and have to be involved at psychological and pragmatic analyses (though in typical cases for translation some of these factors are neutralized – for example, the factor of experience and the factor of a situation).

4 Discussion

In the process of two-way interpreting, the interpreter needs to understand and translate all those speech formulas, stamps, ellipses, and even archetypal expressions that occur in a lively dialogue and that occur regardless of the topic of communication and conversation, excellent knowledge of which should be absolutely necessary for all those involved in the field of dialogue interpreting.

The ability to translate common cliche formulas, expressions of spoken language, exoticism, dialecticism, wordplay, etc. (Baran 2008 et al.: 195–234) testifies that the interpreter is familiar in truly dialogical speech, in those expressions which are not learned through a book or school education but are passed on from mouth to mouth.

It is known that the norms of human behavior have their own linguistic congruencies, not necessarily the same for different peoples. Hence the task of the interpreter: not just to translate, but to learn, in the process of the bilateral interpreting, to use conversational expressions that are most appropriate for the particular communication situation. Knowing all kinds of stereotyped expressions, which are typical for dialogic speech, and the ability to use them correctly in the translation process, will embody the confidence in the interpreter and help to most emotionally affect the recipient, because the speech material addressed to him (the recipient) is formulated according to the speech usus correctly, that is, the same words and expressions that the listener is used to use in such situations.

Besides, knowledge of expressions inherent to dialogical speech, acquaintance with speech behavior of native speakers allow to understand them (native speakers) in half-word, which, in turn, creates better conditions for translation activity and part of it encourages faster and better translation.

Thus, a number of such syntactic constructions are used in a dialogical speech that is completely unsuitable for monological

speech (Vaskivska et al. 2019). It should also be noted here that, as a rule, dialogical speech is often characterized by grammatical errors and deviations from the language norm, is not typical for monological speech, because it is usually an organized type of oral speech and more prepared (Metodyka navchannia inozemnykh mov u zahalnoosvitnikh navchalnykh zakladakh: pidruchnyk [Methods of Teaching Foreign Languages in General Educational Institutions: A Textbook] 202: 167*).

As for deviations from the language norm, it should be noted that even the culturally educated part of society makes mistakes in speech, so the interpreter from Ukrainian to German and vice versa from German to Ukrainian should not "lose his head" and lose the pace/rhythm of translation through grammatical errors *(order of words in appendage sentences, use of articles, temporary forms, etc.).* However, illiterate bilateral interpreting has no permanent "excuse" for a translator. Perform grammatical and lexically adequate translation – "translation, causes the foreign recipient to have a reaction corresponding to the communicative setting of the sender" (Cherednychenko 2017: 17) – should become the main goal and task of the translator. In order to achieve this goal and effectively perform the task, you should always find the time and "fresh traces" to thoroughly study each translation and thoroughly analyze errors and/or to avoid them in the future (Chuzhakin 2002: 7).

Then the question arises: how easy it is to understand dialogic speech with "grammatical errors?" This question is simply answered in the affirmative because, in the process of professional training at a university, the future translator usually only gets acquainted with the correct speech. Its teachers are already doomed to speak only correctly because of the need to do so. In academic sound recordings, students are also usually only offered the correct speech. Now it should be noted that correct speech is, in a certain sense, a speech standard, and it is a great rarity. Most people speak much worse and it is much more difficult to understand them, especially by hearing. World-famous playwright and the great teacher of acting *Kostiantyn Stanislavskyi* wrote on this occasion:" …I studied both myself and others, and as a result, finally made sure that people need to go back to school and start everything from the basics. We do not feel our language, phrases, syllables, letters, and therefore easily distort them… Add to this hyperism, lisping, squealing, squeaking, craunching, and all sorts of stammering" (Stanislavskyi 2017). Immediately, it should be noted that such a disappointing characteristic applies not only to native speakers of Russian (after all, it was the genius of the stage), it applies to all languages, not to mention the "surzhyk" in Ukraine (Bilous 2015).

That is why we believe that for the successful implementation of the bilateral interpreting it is necessary to get acquainted beforehand (previous awareness) with the speech of the most native speakers, such as German (Bilous, Piankovska 2019), and not only with the speech of those who, so to speak, is the linguistic elite of this or that ethnos.

Speaking about the wrong speech, we would like to dwell on the experiment, which is constantly conducted at the fourth bachelor's and first master's degree courses of the Translation Department at the University of Kropyvnytskyi/Ukraine. The experiment allowed us to reveal that the perception of wrong speech in the native language is significantly different from the perception of wrong speech in foreign languages, in our case in German.

And it is really so, perceiving information in the native language, our students tend to allegedly "fall on deaf ears" all repetitions (tautology), parasite words, and other speech phenomena. And this happens even when students are specifically assigned the task of recording this type of linguistic phenomena, and the students themselves had the opportunity to listen to each expression declared many times. When perceiving wrong speech in German (*and to this we should add the traditional saturation of German with different dialectisms, because each federal state or canton of German-speaking countries has its own dialect*) we

observed another picture: mistakes in the speech of the speaker led to mistakes in understanding of the listened speech material, or even to complete (partial) rejection of the listened material.

The examples of German spontaneous dialogic/monologic speech available to the students in the audio-video recordings not only contained certain thoughts (worldview conclusions, personal attitude to certain events, actions, etc.) of the participant of the communication but also represented in a certain sense the search for the most adequate form of expression. Inability (incompetence) to reveal a special function of dialogic speech in these searches led to the fact that future translators lost the essence of the translation, could not comprehend/understand the logic of the speaker's presentation *(for example, when using German conjunctiva when substituting indirect direct speech, etc.).* This was a consequence of the fact that they (students) got used to well prepared monologic speech, which is characterized by complete expressions, clarity of designations/definitions, and often lack of spontaneity.

5 Conclusion

Based on the above, it is possible to conclude: in the bilateral interpreting process, the interpreter should understand speech not only at the level of various grammatically correctly accepted syntactic constructions and elliptical turns, which are inherent in dialogical speech but also to understand this speech with those typical speech mistakes, which hypothetically can be made by native speakers as participants of the communication act.

In the process of dialogic speech, its participants can perform certain speech actions that can change a pre-planned communication situation. The interpreter's task is to adequately convey the essence of the speaker's speech act through the recipient's language. Since communication partners are constantly changing roles, the interpreter also has to constantly change the direction of the translation. This in itself is an additional challenge for the interpreter. On this basis, it should be noted that if the interpreter often makes a translation in two directions, he or she faces the danger of "gradually losing the ability to distinguish between the mediation processes (processes of intermediary activity of the interpreter) (Chernovatyi 2013: 43), which are inherent in each language, and increasingly mixed features of the two languages when coding. In other words, the bilateral interpreting process tends to transform a system of correlations between language, being, and consciousness, reflected in the linguistic picture of the world of one language, into a system of combining related but not identical speech concepts of two or more languages.

This "cunning" of the bilateral interpreting must be borne in mind by methodologists when developing didactic guidelines for teaching two-way interpretation. Indeed, the bilateral interpreting process is a kind of "harmful production" in which the interpreter's skills of switching from one language to another are introduced under difficult conditions, when the interpreter needs to neutralize the interference of two languages (from Latin *inter – between*, *reciprocally* and *ferens, ferentis – carrier, transfers – interaction of language systems in the conditions* of *bilingualism, which occurs during the process of language contacts, etc*). As noted by the researchers of interpretation, the constant changes in the direction of switching involve special work on neutralizing the influence of two languages, which is manifested in linguistic literalism, artificial constructions, fragmented speech (Chernovatyi 2013: 2634–266; Chuzhakin 2002: 16–19; Maksimov 2007: 89–92;).

Summing up the above, we can summarize the following: As an interpreter's professional activity, bilateral interpreting should be distinguished from other types of interpretation, given its specificity. This specificity of the bilateral interpreting is determined primarily by two circumstances: first, unlike other types of interpretation that deal with monologic speech, which is usually pre-prepared, the bilateral interpreting is the translation of spontaneous dialogue speech with all its consequences; second, constant changes in the direction of the switchover

require the interpreter to be able to neutralize the influence of not one but two languages during coding.

The students of the interpreting departments (when studying all types of interpreting) should be given the following advice: in educational and real interpreting it is necessary to constantly take care of the availability of at least some materials on the subject of the interpretation, try to collect as much information as possible about the participants of the negotiations, speakers: personal data, titles, ranks, positions, names of companies/enterprises and their field of activity and the like. After all, previous awareness has always been, is, and will be the key to high-quality and complete interpretation.

Unfortunately, in our opinion, in Ukrainian universities, where the professional translation is studied, not enough attention is paid to interpreting. The reason for this is the fact that when entering the specialty *"Translation"* applicants in Ukraine have no choice who to be after graduation – interpreter or translator. In Ukraine, in contrast to the progressive world practice, all graduates of the translation departments receive a general qualification – "Translator" with the indication of language or several languages, and therefore the curriculum and work plans for the training of translators are more general, rather than subject-oriented, which significantly affects the quality of training of specialists in the field of interpretation.

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THE ROLE OF DIETARY SUPPLEMENT OYOX IN THE NORMALISATION OF METABOLIC PROCESSES IN THE BODY

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Abstract: Disorders of metabolism (metabolism) are manifested at almost all levels of the biological systems of the body - at the cellular, molecular and others. Metabolic disorders lead to the development of various diseases, in particular, to homeostasis disorders, atherosclerosis, coronary heart disease, strokes and myocardial infarction. The role of MS in the development of infertility is increasing. The main way to normalize metabolic processes is the widespread use of dietary supplements in everyday practice. The aim of the research is to study the role of the dietary supplement OYOX in the normalization of metabolic processes in the body. Materials and methods. We used theoretical and practical research methods. In particular, the methods of analysis of literary sources, statistical data, results of clinical and preclinical studies were used. The method of generalization, analysis, systematization, classification of the obtained data was used. From the practical methods, we analyzed anamnestic data, interpreted the results of biochemical and clinical blood tests before and after taking the drug. Results and discussion. It is proved that the drug OYOX has a positive effect on the indicators of metabolic processes. This is confirmed by the results of biochemical and clinical studies. There is a significantly significant decrease in cholesterol levels, primarily due to a decrease in HDL levels, as well as a decrease in triglyceride levels. According to the results of clinical studies, the drug OYOX helps to normalize the level of glycated hemoglobin and erythrocytes, there is an increase in the number of stab and segmented neutrophils, the level of eosinophils does not change. Conclusions. Dietary supplement OYOX can be effectively used to normalize metabolic processes, eliminate metabolic syndrome.

Key words: metabolic disorders, metabolic syndrome, dietary supplements, OYOX, clinical analyzes, biochemistry.

1 Introduction

Relevance of the topic. A pandemic of metabolic syndrome (MS) disorders associated with metabolic disorders is acquiring not only medical, but also increasing social significance. This condition has adverse effects on the entire body and is a risk factor for serious illness (Tao et al., 2011). MS is characterized by an increase in visceral fat mass, decreased sensitivity of peripheral tissues to insulin and hyperinsulinemia, impaired carbohydrate, lipid, and purine metabolism, and arterial hypertension. The main manifestation of MS is abdominal obesity. Currently, there are at least 7 alternative definitions of MS in the world.

According to the clinical guidelines of the Russian Medical Society for Arterial Hypertension (2013), the presence of MS is determined if there are 3 criteria: 1 main and 2 additional. The main criterion for MS in women is a waist circumference of more than 80 cm (Ametov, 2013).

Additional criteria: increased blood pressure or treatment with antihypertensive drugs, increased triglycerides, low-density lipoprotein cholesterol, decreased high-density lipoprotein cholesterol, impaired glucose tolerance and / or impaired fasting glycemia. The prevalence of MS in Russia varies from 20 to 35%, and in women it occurs 2.5 times more often, and the number of patients increases with age (Yoshino et al., 2011).
The mechanisms of development of obesity and MS continue to be actively studied. The role of genetic and epigenetic conditioning of insulin resistance as one of the leading pathogenetic factors of MS is studied. It has been found that insulin sensitivity decreases with increasing body fat. MS is characterized by the development of slowly progressive inflammation, and many patients have increased levels of proinflammatory cytokines (Bekmukhambetov et al., 2015).

Research problem. Restriction of physical activity, decreased physical activity, increased caloric intake, overeating, excessive use of salt, alcohol, fast food invariably lead to metabolic disorders and the development of metabolic syndrome (Belozerova & Kobozeva, 2014; Butrova, 2014; Chahirou et al., 2018). One of the effective ways to correct metabolic disorders in the body is the intake of dietary supplements, in particular, OYOX supplements.

2 Goals and Objectives

The aim of the research is to study the role of the dietary supplement OYOX in the normalization of metabolic processes in the body.

Research objectives

1. Consider the features of metabolic disorders in the body.
2. Consider the main ways of correcting metabolic disorders.
3. To analyze the effect of the OYOX preparation on the state of the basic biochemical and clinical parameters of the organism.

3 Methods and Materials

We used theoretical and practical research methods. In particular, the methods of analysis of literary sources, statistical data, results of clinical and preclinical studies were used. The method of generalization, analysis, systematization, classification of the obtained data was used. From the practical methods, we analyzed anamnestic data, interpreted the results of biochemical and clinical blood tests before and after taking the drug.

4 Results and Discussion

Characteristics of metabolic disorders (metabolic syndrome). Metabolic syndrome is a complex of changes associated with metabolic disorders. The hormone insulin ceases to be perceived by cells and does not perform its functions. In this case, insulin resistance or insensitivity to insulin develops, which leads to impaired absorption of glucose by cells, as well as pathological changes in all systems and tissues. It is known that MS is a precursor of factors in the development of many diseases, such as diabetes mellitus, arterial hypertension, IHD, diseases of the stomach, duodenum, liver, gall bladder, and pancreas (Shashel & Kaspirovich, 2012).

There is still no consensus regarding the main pathogenetic factor of MS, which determines all other manifestations, however, most researchers believe that the key link in MS is abdominal obesity with the subsequent development of IR in individuals with a genetic predisposition to the disease, manifested in the presence of similar environmental factors.

Also, IR and obesity contribute to the manifestation and progression of each other and other components of MS. The predisposition to the development of IR and obesity is a consequence of the presence of the "thrifty genotype" - a complex of certain genes that ensure the survival of the organism in unfavorable food conditions. In the process of evolution, genes are fixed, which, with excess nutrition, are responsible for the accumulation of energetically rich substances in adipose tissue and reduced energy utilization. In conditions of insufficient supply of nutrients, the body uses these reserves. However, in modern conditions, when a person moves little and consumes a large amount of high-calorie food, the "thrifty genotype" contributes to the development of obesity and IR. Insulin resistance - a decrease in the response of insulin-sensitive tissues to insulin at a sufficient concentration, leading to chronic compensatory GI (Kennedy et al., 2015).

A special role in the development of MS is played by VT, which is sensitive to the action of insulin and is one of the main

regulators of metabolism. Its excessive development, arising from hyperplasia and / or hypertrophy of its constituent cells, first leads to the development of obesity, and then IR. All VT cells are derivatives of loose connective tissue (PCT). An increase in the number of cells occurs due to an increase in the mitotic activity of their precursors; mature VT cells do not divide. In the human body, the development of white fat is observed at the 14th week of pregnancy, although the exact timing depends on the size of the fetus: the larger the fetus, the earlier adipocytes develop. Proliferation of progenitor cells decreases at the end of pregnancy, and then VT increases primarily due to pre-differentiated ones, the division of which stops in adolescence. Thus, the total number of adipocytes does not change further, despite the fact that new cells will be formed and destroyed. Similarly, about 10% of human adipocytes are renewed per year (Butrova, 2014).

Fat cells absorb and deposit FAs in the form of TGs, release them into the intercellular medium in the form of FFAs for absorption by all cells in vivo. FAs in the human body are present in bound and free forms. The bound form is esterified FA in the form of ether compounds with alcohols (glycerol, cholesterol, etc.) in the composition of TG, phospholipids and steroids, accounting for 90–95% of the total FA. Free, or non-esterified, fatty acids (NEFA, or FFA) make up 5-10%, in blood plasma they are associated with albumin. A very small part of plasma FFAs is formed during hydrolysis of LP (chylomicrons, very low density lipoproteins (VLDL)) under the action of endothelial LPL or hepatic lipase, while the bulk of them comes from VT as a result of TG lipolysis with the participation of hormone-sensitive lipase (Misnikova, 2015).

Thus, TGs of fat stores play the same role in lipid metabolism as liver glycogen in carbohydrate metabolism, and FFAs in origin and physiological role resemble glucose, which is formed during the breakdown of glycogen. When adipocytes are filled with TG, their proliferation increases for further FA deposition. Excessive accumulation of stored TGs in adipocytes can lead to dysfunction of EPS with the development of endoplasmic stress syndrome: deformation of rough membranes of EPS leads to the absence of formation of tertiary and quaternary protein structures, which is accompanied by the secretion of functionally inactive proteins.

An increase in the concentration of non-physiological proteins in adipocytes disrupts the function of these cells, but the accumulation of TG in them continues. If the fat cells become very large, then the program of cell death by the type of apoptosis is implemented, and apoptotic bodies in large numbers are endogenous phlogogens. Therefore, the death of hypertrophied adipocytes leads to the development of inflammation without an increase in the number of cells in the VT (Moskalev, 2013).

Metabolic Syndrome (MS) is an eyelid disease associated with errors in nutrition and a sedentary lifestyle. It is characterized by the following symptoms: abdominal obesity, insulin resistance, increased glucose and lipid levels, and increased blood pressure. In addition to the obvious lifestyle reasons, genetic factors also contribute to the development of MS. Genome-wide association analysis (GWA) studies, such as the GIANT consortium (Genetic Investigation of ANtropometric Traits), which included 270,000 Europeans, have identified specific polymorphic variants of genes that are highly likely to affect body mass index (Ametov, 2013).). The presence of a genetically determined propensity to overweight or the carriage of polymorphic variants of MS susceptibility genes are certain indicators of the risk of developing these conditions.

Metabolic disorders (metabolism) are manifested at almost all levels of the biological systems of the body - at the cellular, molecular and others. The most serious metabolic disorder is considered at the cellular level, since it significantly changes the mechanisms of self-regulation and has a hereditary cause. Metabolism is a complex of chemical reactions that fully

correspond to its name, because metabolism in Greek means "transformation" (Isaeva et al., 2017).

Constantly acting metabolism, in fact, supports life in the human body, allowing it to develop and multiply, adequately respond to the effects of the external environment and maintain all its functions. Fats, carbohydrates, proteins and other elements take part in metabolism, each of which plays its own role in metabolism.

- An irreplaceable "building material" is proteins. Proteins are part of the structure of blood plasma, hemoglobin, hormones, cytoplasm, immune cells, and proteins are also responsible for the water-salt balance and fermentation processes.
- Carbohydrates are considered a source of energy resources of the body, among the most important are glycogen and glucose. Also, carbohydrates are involved in the synthesis of amino acids, lipids.
- Fats accumulate energy reserves and release energy only in combination with carbohydrates. Fats are also needed for the production of hormones, the assimilation of certain vitamins, they are involved in the construction of the cell membrane, ensure the preservation of nutrients (Kim et al., 2011).

A metabolic disorder is a change in one of the metabolic stages - in catabolism or anabolism. Catabolism or dissimilation is the process of oxidation or differentiation of complex elements to the state of simple organic molecules that can participate in the process of anabolism (assimilation) - synthesis, which is characterized by energy consumption. Overweight in many people occurs due to the peculiarities of eating behavior: late satiety, tendency to overeat, early onset of hunger, tendency to frequent snacks, and others (http://cardioweb.ru; Romantsova et al., 2012).

Nutritional satiation - the disappearance of hunger after eating, refusal to continue eating. The saturation rate depends on both mechanical (stretching, stomach) and neuroendocrine (release of active substances that affect the saturation center in the brain) factors. Polymorphism of genes that influence these neuroendocrine responses can lead to changes in the concentration and activity of encoded proteins, and thus affect the rate of onset of satiety (Koh et al., 2017).

In persons with MS, according to echoencephalography, psychological tests, there are clear signs of a stress state (Kennedy et al., 2015). The hypothalamic-pituitary system in a stressful situation is characterized by increased activity. The level of hormones - adrenocorticotropic hormone (ACTH), glucocorticoids, follicle-stimulating hormone (FSH), estrogens, growth hormone (STH), insulin - increases (Kennedy et al., 2015; Kim et al., 2011; http://cardioweb.ru). An increase in the amount of steroid hormones contributes to the contrainsular effect. Weight gain progresses, there is a tendency to hypertension, menstrual function, hemostasis are disturbed, the risk of heart attacks and thrombosis increases. In women, against the background of menstrual dysfunction, hyperplastic processes develop in the endometrium, myometrium, and mammary glands (Moskalev, 2013).

Obesity and MS are a multidisciplinary medical problem. Reproductive dysfunctions are especially relevant in metabolic dysfunctions. It can be assumed that for the occurrence of this pathology, a period of 4–5 years is required, after which the conditionally functional changes become anatomical. Obesity with menstrual dysfunction and infertility is the most common type of MS (Moskalev, 2013).

In recent decades, there has been a steady increase in various types of neuroendocrine disruptions in women with metabolic disorders, leading to impaired fertility. Bekmukhambetov E.Zh. (2015) investigated the consequences of maternal overeating during pregnancy, accompanied by an increase in the incidence of obesity and metabolic diseases in future children. Maternal

and paternal obesity before conception alters the molecular composition of oocytes and sperm, leading to epigenetic reprogramming of fertilization, altering the trajectory of the embryonic development process, increasing the prevalence of obesity and metabolic disorders in future offspring (Andrianova et al., 2015).

Also, in clinical practice, diseases are described in detail, which are inevitably accompanied by signs of metabolic disorders:

- Gout is a dysregulation of uric acid metabolism, in which salts accumulate in the kidneys and cartilaginous tissues, provoking an inflammatory process.
- Hypercholesterolemia - disorders of dissimilation, catabolism of lipoproteins, when the level of cholesterol in the blood rises significantly, cholesterol also accumulates in the tissues. This imbalance is one of the reasons for the rapidly developing cardiovascular diseases worldwide.
- Phenylketonuria - metabolic disorders of hereditary etiology, when the body lacks a specific enzyme - phenylalanine hydroxylase, which leads to mental disorders (developmental delay).
- Gierke's disease - an excess of glycogen in organs and tissues, which leads to hepatomegaly (enlargement of the liver), developmental delay - in growth, hypoglycemia.
- Alcaptonuria - metabolic disorder due to gene mutation, when the gene responsible for the synthesis of oxidase does not perform its function. This is a typically male disease that affects the cartilage tissue (spine, joints).
- Albinism - lack of the necessary pigment - melanin. The disease is caused by the inability to synthesize tyrosine and phenylalanine and has a hereditary etiology. In addition to these diseases, signs of metabolic disorders are characteristic of many other pathologies, usually developing genetic deformities (Misnikova, 2015).

Ways to correct metabolic disorders. Recent studies have demonstrated the high effectiveness of diet and physical activity in correcting metabolic disorders. With a change in lifestyle in people with early metabolic disorders, the risk of type 2 diabetes mellitus (type 2 diabetes) decreases by 58%, the risk of obesity decreases by 48% (Simonsen et al., 2018). However, it is also known that in a number of patients, diet and increased physical activity are ineffective and do not prevent the development of the disease. Today, a new approach to building a diet based on the individual characteristics of a person is proposed. The influence of nutritional components on gene expression is being studied by a new science - nutrigenomics. Nutrients can cause changes in metabolism by affecting the activity of certain genes, which in turn affect the human proteome and metabolome. In addition, the genetic variability of the food itself can have an impact on human health (Misnikova, 2015).

Determination of genetic markers affecting lipid metabolism makes it possible to assess the individual risk of hyperlipidemia (increased levels of LDL cholesterol and triglycerides), which underlies atherosclerosis and ischemic heart disease. In addition, impaired absorption, distribution and mobilization of fatty acids from adipocytes affect the risk of overweight and the need to restrict fat to a certain class. There are several types of fats: saturated, polyunsaturated, monounsaturated, and hydrogenated fats (trans fats). One of the main methods of weight loss in MS

patients is the use of a low-fat diet (Kim et al., 2011). The goal of low-fat diets is to reduce your intake of fatty foods and replace them with low-fat ones. Eating a low-fat diet reduces the risk of heart disease, liver disease, and kidney disease. However, a sharp restriction of fat for a long time can have adverse consequences: a deficiency of vitamins A, D, K, E, which leads to physical and mental fatigue, dry skin, hair loss and other disorders (Koh et al., 2017).

In studies recently conducted by the Institute of Nutrition of the Russian Academy of Medical Sciences, the following violations of the nutritional status of the Russian population were established: excessive consumption of fats; deficiency of polyunsaturated fatty acids; deficiency of complete proteins; deficiency of most vitamins; deficiency of minerals - calcium, iron; deficiency of trace elements - iodine, selenium, zinc, fluorine (Bekmukhambetov et al., 2015). The fastest, economically acceptable and scientifically grounded way of solving this problem is the creation and widespread use of dietary supplements in everyday nutrition. At their core, dietary supplements are micronutrients in compact and easy-to-use forms. Therefore, today, a promising direction is the use of biologically active additives (dietary supplements) for the treatment and prevention of metabolic disorders.

Biologically active food additives (BAA), nutraceuticals and parapharmaceuticals, occupy an intermediate position between drugs and food. BAA can be successfully used to saturate the body with food biologically active substances, the deficiency of which is often found in modern humans. Today dietary supplements can be considered as a real means for chemoprophylaxis of metabolic disorders and pathological processes associated with this state. Examples of dietary supplements are given, in which special studies have shown the ability to prevent the development of malignant tumors and atherosclerosis (Nogalska & Pankiewicz, 2016).

One of the effective means of normalizing metabolic processes is the orthomolecular drug OYOX.

The core of the OYOX composition is the key complex molecule "CYC-8" containing cycloastragenol. "CYC-8" -produced by treatment with a weak combined magnetic field (CMF) tuned in the parametric resonance mode, which led to the discovery of a number of new previously inaccessible properties of cycloastragenol. Formulated ingredients such as resveratrol, 5NTP, phosphatidylserine, selexene / organic selenium, L-theanine act as a transport system to increase the bioavailability of the molecule. OYOX also contains ascorbic acid (vitamin C), which acts as a natural antioxidant. OYOX is packaged in a SMART (smart) capsule that releases the product in the small intestine, thereby increasing the absorption of valuable molecules (https://oyox.eu/clinical-researches).

Influence of the OYOX preparation on the state of the basic biochemical and clinical parameters of the organism. In order to assess the role of OYOX drugs in the treatment and prevention of metabolic disorders, we conducted a study aimed at assessing the main biochemical and clinical parameters of patients taking OYOX. The study involved 18 people aged 32 to 82 years. All patients showed signs of metabolic disorders. So, the results of the main biochemical parameters are presented in table 1.

Table 1. Biochemical parameters before and after taking OYOX

Index	Reference values	Before treatment	After treatment
Total protein	66-87	69,5±2,5	77±2,5
Urea	1,7-8,3	5,4±0,5	6,3±0,5
Creatinine	44-97	76±5,5	73±5
Total bilirubin	от 2 до 21	12±0,5	12±0,5
Cholesterol	3,63-5,2	6,7±1	6±1,1
Triglycerides	0-1,7	2,5±0,5	1,97±0,5
HDL	0,9-1,54	2,6±0,1	2,4±0,1
LDL	1,6-4,3	4,3±0,05	3,7±0,05
ALT	0-32	21,1±2,5	20±1
AST	0-31	23±2,2	20±1

As we can see from the presented data, patients have a significantly significant increase in the normal level of cholesterol, triglycerides, HDL and LDL. Cholesterol levels above 6 mmol / L are considered elevated and are considered a risk factor for metabolic disorders. This poses a health risk as it can provoke atherosclerosis.

Elevated cholesterol in the blood contributes to the development of atherosclerotic damage to the walls of blood vessels and is one of the risk factors for the development of severe cardiovascular diseases such as angina pectoris (coronary heart disease) and myocardial infarction, cerebral stroke and intermittent claudication. Thus, the average level of cholesterol in the blood of patients before taking OYOX was 6.7 ± 1 mmol / L. After taking the drug, the average group indicators were 6 ± 1.1. There is a gradual normalization of the cholesterol level, its approximation to the norm.

The most pronounced changes are observed in the level of cholesterol and triglycerides (Fig. 1).
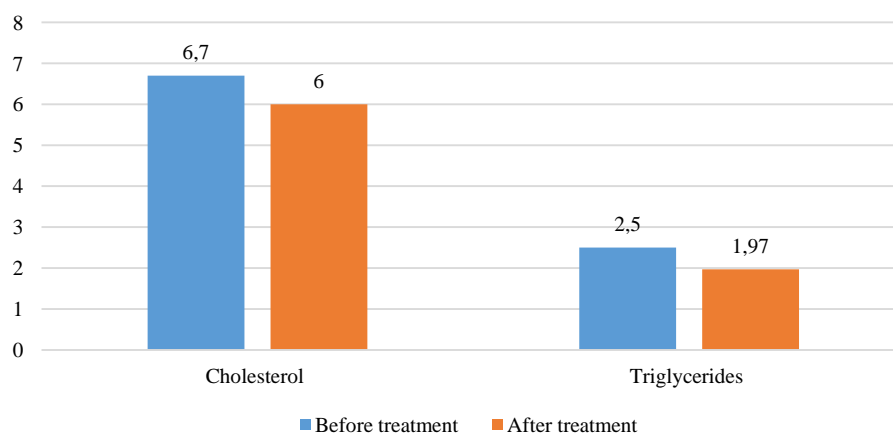
Figure 1. Cholesterol and triglyceride levels before and after treatment

At the same time, there is mainly an increase in HDL (before treatment, the indicators were 2.6 ± 0.1, while the norm was up to 1.54 mmol / L. After taking OYOX, the indicators decreased significantly (to 2.4 ± 0.1 mmol / L). lower than the level of HDL. So, before treatment, these indicators were 4.3 ± 0.05 with a maximum threshold value of 4.3 mmol / L. After taking OYOX, the indicators decreased to 3.7 ± 0.05, which corresponds to the reference values (Fig. 2).
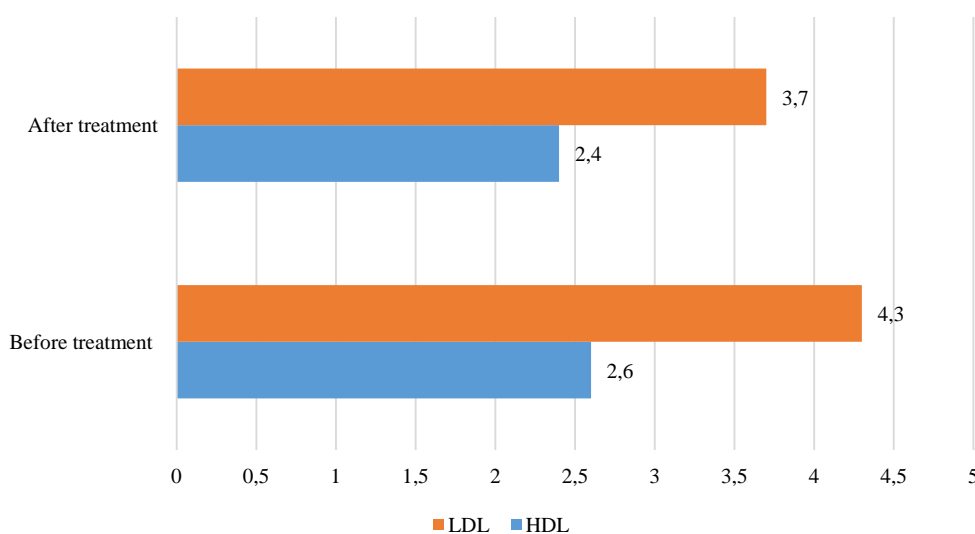
Figure 2. HDL and LDL levels before and after treatment

Also, patients have an increase in triglyceride levels, which is also a symptom of metabolic disorders. Thus, the average group level of triglycerides before taking OYOX was 2.5 ± 0.5 at a rate of 0-1.7 mmol / l. After taking OYOX, the indicators decreased to 1.97 ± 0.5, which, although it exceeds the norm, is already approaching it as much as possible. Certain conditions associated with metabolic disorders are often associated with elevated triglyceride levels. This may mean that individuals with secondary hypertriglyceridemia may have minor inherited metabolic defects.

Obesity is the most common metabolic stressor associated with hypertriglyceridemia. A similar relationship was found with poorly controlled type 2 diabetes and excessive drinking. Thus, according to the results of biochemical analyzes, it can be concluded that the dietary supplement OYOX has a positive effect on metabolic processes, contributing to the normalization of metabolic processes in the body.

In particular, there is a significantly significant decrease in cholesterol levels, primarily due to a decrease in HDL levels, as well as a decrease in triglyceride levels. Next, we analyzed the main clinical parameters of patients before and after taking OYOX (Table 2).

Table 2. Clinical indicators before and after taking OYOX

Index	Reference values	Before treatment	After treatment
Glycolized hemoglobin	4,1-5,7	6±1,5	5,9±1,2
Hemoglobin	120-140	133±15	129±15
Erythrocytes	3,9-4,7	5,7±1,2	5,3±1
Platelets	180-320	233±10	237±10
Leukocytes	от 4 до 9	7±1	7,3±1,2
Stab neutrophils	от 1 до 6	2,5±0,5	3,5±0,5
Segmented neutrophils	47-72	20,5±2	57,7±2,5
Eosinophils	0,5-5	3,3±0,1	3,4±0,05
Lymphocytes	19-37	28±2	28±1,5
Monocytes	от 3 до 11	7±0,5	6,2±0,5
ESR	15-20	15±1,5	12±2
Telomere length		13,05±2	13,8±2

As can be seen from the table, the drug OYOX helps to normalize the level of glycated hemoglobin and erythrocytes, which helps to reduce hypoxic phenomena, saturation of blood with oxygen, and a decrease in carbon dioxide levels. All this helps to reduce the number of free radicals in the blood, prevents the risk of oxidative stress, and, accordingly, contributes to the achievement of an anti-aging effect, normalization of metabolic processes. There is also an increase in the number of stab and segmented neutrophils, which indicates the state of human immunity (Fig. 3).
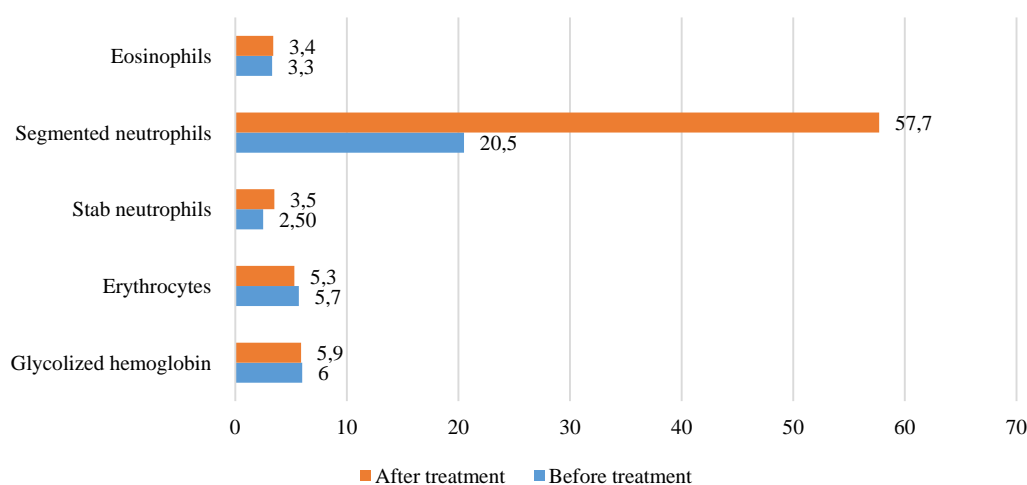
Figure 3. Dynamics of the main clinical indicators

The drug has no pronounced effects on the level of eosinophils, which suggests that the drug does not cause allergic reactions.

4 Conclusions

Disruption of metabolic processes has an adverse effect on the entire body and is a risk factor for serious diseases. Metabolic disorders underlie metabolic disorders (MS). Thus, MS is characterized by an increase in the mass of visceral fat, a decrease in the sensitivity of peripheral tissues to insulin and hyperinsulinemia, disorders of carbohydrate, lipid, purine metabolism, and arterial hypertension. The main manifestation of MS is abdominal obesity. Metabolic disorders (metabolism) are manifested at almost all levels of the biological systems of the body - at the cellular, molecular and others. In persons with MS, according to echoencephalography, psychological tests, there are clear signs of a stress state.

The hypothalamic-pituitary system in a stressful situation is characterized by increased activity. Metabolic disorders lead to the development of various diseases, in particular, to homeostasis disorders, atherosclerosis, coronary heart disease, strokes and myocardial infarction. The role of MS in the development of infertility is increasing. Thus, in recent decades, there has been a steady increase in various types of neuroendocrine disruptions in women with metabolic disorders, leading to impaired fertility.

Also in clinical practice, diseases are described in detail, which are inevitably accompanied by signs of metabolic disorders: gout, hypercholesterolemia, phenylketonuria, Girke's disease, alkaptonuria, albinism. In addition to these diseases, signs of metabolic disorders are characteristic of many other pathologies, usually developing genetic deformities.

Recent studies have demonstrated the high effectiveness of diet and physical activity in correcting metabolic disorders. However, nutrition is not able to fully meet all the body's needs for nutrients, vitamins and minerals. The fastest, economically acceptable and scientifically grounded way of solving this problem is the creation and widespread use of dietary supplements in everyday nutrition. It is proved that the drug OYOX has a positive effect on the indicators of metabolic processes.

We analyzed the effect of the OYOX preparation on the state of the basic biochemical and clinical parameters of the organism. Based on the results of biochemical analyzes, it can be concluded that the dietary supplement OYOX has a positive effect on metabolic processes, contributing to the normalization of metabolic processes in the body. In particular, there is a significantly significant decrease in cholesterol levels, primarily due to a decrease in HDL levels, as well as a decrease in triglyceride levels.

According to the results of clinical studies, OYOX helps to normalize the level of glycated hemoglobin and erythrocytes. An increase in the number of stab and segmented neutrophils is noted, which indicates the normalization of the state of human immunity. The drug has no pronounced effects on the level of eosinophils, which suggests that the drug does not cause allergic reactions.

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LANGUAGE AND ACTION IN POSTMODERN PHILOSOPHY

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Abstract: "The article intends to show the general methodological and main applied guidelines of postmodern philosophy in the plane of language-action-consequence. The paper reveals in detail significant facts of human life, since man is the very fact of this life and an effective element in the independent creation and phenomena around him.The theoretical and methodological background of research was a system approach based on modern philosophical and literary studies in the field of postmodern philosophy: Derrida and Lyotard, Hale, Tuan, etc., who reveal the issues of language and action in postmodern philosophy from different angles, and represent the peculiarities of its realization in the domestic conditions. The study involved traditional general scientific methods: analysis and synthesis, typological comparison.

Keywords: language and philosophy, language and action, philosophy, postmodern philosophy, logic of language and action

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1 Introduction

Research topicality. The last decades of the 20th century are characterized by significant events (formation of a special worldview and feeling), which brought changes to the socio-cultural reality and gained considerable popularity under the general name of "postmodern", "postmodernism". It is the need for a philosophical justification of these phenomena for the modern era that testifies to the topicality of this study.

Analysing the methodological background of the research topic, we can trace the complexity associated with its pretension to universality, first, with the lack of a common understanding of postmodernism, and second, with the versatile use of this concept, both in the philosophical literature and in works on sociology, history, culturology.

Postmodernism is relevant because it means linking the phenomenon to time according to development, self-awareness of the inner world, in the form of something that is in the post stage, after modernity. But based on the scientific literature, it is becoming increasingly clear that this is "going beyond time." Scientific literature review shows that scholars describe the term "postmodernism" as a reproduction of spiritual development and awareness of oneself in contrast to other subjects and the world in general.

Each person goes through life at his own discretion, the knowledge and experience he gained is no more than a set of the same person's will to live, anxiety for knowledge, intuition, and wisdom to apply that all correctly.

Analysing the scientific work of Being and Time, we conclude that Heidegger (Heidegger, 2016) developed the "lifeworld" as "being in the world", where the "life world" was presented with the understanding that people exist in the world in constant connection with it. Merleau-Ponty (Merleau-Ponty, 2012) delved into the concept of "life world" in the phenomenology of perception. For Merleau-Ponty, the human body is the central conduit through which people learn and understand the world, as well as realize the inseparable connection with the world (Hale, 2017). From the "recesses of a body", (Merleau-Ponty, 2012) perception not only denotes the "sensorimotor abilities" of human perception of the world, but also denotes the ways in which humans exist, how people live in the world.

The organs of a body not only contribute to a better understanding of the external world, but also help to "manifest the world" as the private, internal world of man, which is used to describe, express or represent. By substantiating "the basic forms of all human experience and understanding, namely the perspective orientation and contrast of figure/ground, focus and horizon", (Merleau-Ponty, 2012) the configuration offers people

"not really a means of presenting the truth already known, but rather discovering the previously unknown. Their diversity is not one of the sounds and signs, but the diversity of worldviews."

Time experienced by human movement thus offers people a "sense of movement, direction, and balance", which helps them track current movement, enabling them to adjust their behaviour to achieve their goals (Hale, 2017). More importantly, time through human movement contributes to the formation of "human time". Like the human body, 'human time' is asymmetric: man with his back to the past, man with his face to the future". It is the "course of human life", (Tuan, 2012) as well as the "growth, history and culture of each person, team and nation" that "embody people in the real and banal world" (Lu, 2017).

The social outline is a pointer and not a predetermined vector of action. Action is always a person's will, in fact, as is the absence of action on his part. Society evaluates social collective experience in terms of the history of its path. People extrapolate the future when they discuss the past, but they make a choice here and now. For example, tomorrow we will evaluate it… And it will always be like that. Thus, it is an eternal question of the philosophy of life of its meaning in the inquiries of man alone.

Therefore, the interest in the postmodernist paradigm for modern applied philosophy is becoming increasingly relevant. Because an active life position and knowledge of own capabilities in their projection to meet their own needs is gradually becoming a social formula for the progress of modern civilization. That is why the philosophy of action, the adequacy of knowledge to the requirements of life becomes important. Applied philosophy is characterized by an original non-classical, nonlinear approach to study the material and spiritual culture of modern society. In modern research we find the basis of certain stereotypes of human thinking and behaviour, we trust the principle of responding to the proposals of life in the standard order: in thoughts - words - trust - actions.

The comprehensive interest in the possibilities of self-realization and irrational activity of a person who seeks to live alone and enable others to live inspired an intellectual excursion into the realm of postmodern philosophy, with its bold challenges to traditions, its assertion of the will to live even through retreat or reassessment of certain classical values. The stated paradigm of curiosity — search - action is a very important problem in modern human science and especially for philosophy, and is strongly topical for the authors of this article.

In addition, as mentioned above, the classical types of worldview do not always meet the demands of modern man. We look for the analysis and solution of such a problem in the field of theories that offer new praxiological approaches to the interpretation of the philosophy of action, participation in life, rather than observation of its course and summarizing the fact. This article intends to show the general methodological and main applied guidelines of postmodern philosophy in the plane of language-action-consequence.

The objective of our study is to reveal the content of the fact of human life, since man is the very fact of this life and an effective element in the creation of one self and phenomena around him. Review of scientific publications. Language and action in postmodern philosophy is a relevant topic of research in philosophy, pedagogy, ethics, and is studied primarily by Western researchers, namely: Gadamer, (Gadamer, 2004) Holzman, (Holzman, 2006) Covarrubias, (Covarrubias, 2002) Höffe (Höffe, 2015). Modern domestic science, in particular, applied philosophy, demonstrates a fragmentary appeal to the realm of postmodern paradigm (Danilchuk, 2008). In turn, this reason and a number of questions to the world tradition of postmodern philosophy did not give a complete answer to our questions, so there is a need to further find an answer to the

problem of consistency algorithm in "thoughts - words - human actions", the results of which we hope to obtain in the course of our study.

Postmodernism was considered in the scientific works of foreign philosophers, such as Baudrillard, Foucault, (Foucault, 2002) and others, and by domestic scholars Kostiev, Sobol, Shashkova and others.

Philosophers in their studies describe ratio differently, for example, Foucault (Foucault, 2002) considers it as an "industrial mind", Derrida describes it as "logocentrism". What unites them is the fact that in almost all conceptions of postmodernists, ratio is an essential factor that deepens the negative tendencies of Western civilization, especially such as totalitarianism, alienating objectification, and limitation. But the main purpose of postmodernism is to critique classical philosophy with its inherent "centrism."

Currently, the problem of text and textuality (the entry of the individual into human culture) is important in philosophy. In addition, the problem of language is studied, which is characterized as one of the means of communication, through which the individual self-expresses, self-identifies, and enters the system of modern culture.

2 Materials, Methods and Procedure of the Research

The methodological, scientific and theoretical background of the article are studies that relate directly to the field of general theoretical postmodern philosophy, and works in the field of sociology, exploring the role of information technology in modern society. The former includes the studies of the classics of post-structuralism, namely Derrida, Deleuze, Foucault, (Foucault, 2002) Barth, Lyotard, Baudrillard, who formulated the basic conceptual framework of postmodern philosophy, which in fact is the theoretical and methodological background of this study. Another group of references are the developments of sociologists Bell, Toffler, Touren and other authors of the theory of post-industrial or information society, as well as research in the field of mass communication by McLuhan.

Due to the need to give a general assessment of postmodernism and determine its significance in philosophy, this article uses historical and philosophical literature, and a special place in this case is given to the ideas of F. Nietzsche. The study is also based on the work of domestic philosophers, sociologists, culturologists, art and literary critics, who dealt with the problems of postmodernism and poststructuralism, including Avtonomov, Garadzh, Hubman.

The theoretical and methodological background of this research is a system approach based on modern philosophical and literary studies in the field of postmodern philosophy: Derrida and Lyotard, Hale, (Hale, 2017) Tuan, (Tuan, 2012) etc., who reveal the issues of language and action in postmodern philosophy from different angles, and represent the peculiarities of its realization in the domestic conditions. The study involved traditional general scientific methods: analysis and synthesis, typological comparison, generalization, motive analysis, as well as descriptive, comparative, archetypal and mythological, cultural and historical, as well as system methods.

Obviously, man's eternal interest in his essence, self-understanding and verification of the system of universally recognized values, while at the same time — his own worldview actualize in an unstable society, with those challenges to readiness to act, for which man is not always ready (that is what is the case in Ukraine today, not only in economic matters, but also in saving human life).

As we see, the philosophical comprehension of reality takes place on theoretical and practical levels: we transfer information through language.

3 Results

The modern world is characterized by a large flow of information, which leads to the loss of essence, the fullness of the life of a person who is constantly in search of himself, his meaning of life in the modern world. In order to better understand the individual's inner world, a person shall be in constant harmony with himself, needs to acquire the relevant knowledge and skills, and further use his own way of communicating with the outside world. That is, nothing more than a compromise of reasonable selfishness (live actively, creatively yourself, and promote similar opportunities other people) with the manners of moralized pragmatism (material accumulation by compromise between conscience and cunning) according to an established norm of the modern world. An in-depth knowledge of postmodernism convinces of the truthfulness of the views of Derrida and Lyotard. In this sense, we see a commitment to the rationalist tradition, which is materialized in the behavioural nature of man — his practicality, his meaningfulness, and the pursuit of order (including fair retribution). If we go further, we will see a natural consequential coherence: the modern legal project and rational natural law includes the fundamental concern for norms (Braynin-Passek, 2002).

In general case, postmodernism indicates the state of the post-modern era. Since the mid-60's of the 20th century, foreign scholars (Risman, Toffler) studied social traditions with an emphasis on the entry of developed countries to another development stage. In order to be properly oriented in the core values, it is necessary to have the appropriate knowledge, skills and willpower in the process of their application. Besides, one needs to have one's own life position. Through life, each person tries to make important decisions for themselves, and be responsible for the freedom of choice and their own actions, which can be difficult for themselves (Höffe, 2015). During life, a person acquires wisdom and concludes that first of all he needs to enjoy life itself, to enjoy the benefits of life, and not to focus on death.

The human world is supernatural, independently created by it, with its own rules of life, with its own values. In the process of creating himself, a person should adhere to legal and moral norms, and, of course, those principles of relations that promote development. Although banal, such social interaction is currently yielding positive results when measuring human participation in life in global terms.

The philosopher sometimes manages to convey a sense of reality by one means of speech (or written signs) in a sentence that probably involves predicting the truth (Holzman, 2006). Nowadays, it is important for each individual to realize and reveal in more detail his own position in life, when he can easily make a choice of communication tools for social self-realization (Voievodin, 2010).

Human activity in the social environment is a given, moreover, in communities with a proper level of educated (let's call this process "acquired formula of interindividual relationships) culture with constant correction of choice by reason, conscience and shame, based on historically known values, which the individual acquires in the process of learning and communication. The social culture acquired by a person motivates a person to consciously (no longer by means of fear, although it is possible, but not a priority) respond to different moments of life based on action and evaluation, the individual must act as a judge in his own life for the purpose of self-realization. On this basis, the individual strives for self-improvement, consciously and gradually arranges his own life, carrying out his assessment through the prism of eternity. This is how the right orientation of a person occurs when making a choice between what he wants and what is most necessary. All this is a practical impletion for the individual. A person builds his life path to self-improvement, regardless of the position of society, and believes that social conflicts can be resolved through self-improvement of each individual.

Covarrubias (Covarrubias, 2002; Covarrubias, 2008) in her works gives feedback on the understanding of the influence of culture and cultural diversity in the activities and events of everyday life in different areas of the context. Using metaphors of communication, cultural/intercultural communication, she sheds light on the nature of cultural and intercultural communication, fostering awareness of issues of social inclusion, justice, and institutional transformation. Covarrubias's work on the study of intercultural communication through real-world narratives shows the way to "deep understanding" of the cultural aspects of communication, and "building" a strong foundation for intercultural communication."

Taking into account the analysis of the patterns of development of life and person's participation in it, it becomes obvious that a person is always looking for an opportunity to organize the productive nature of his own lives. Passive observation of the process no longer brings results (benefits), does not suit. Thus, creation in a broad sense through philosophy — thinking and way of communication — exchange — language — understanding is now the basis of human development, cultural development in a broad sense as the objectification of creative and intellectually applied abilities of man (community) (Yosypenko, 2012).

As we know, every person throughout his existence seeks to find answers to the question of what is the meaning of his life, what is its purpose. On this basis, it is necessary to emphasize the awareness that the core of this is morality, which is characterized as a set of values that are inherent in a particular person, according to social norms and rules.

Thus, rightly noting that throughout most of the history of modern philosophy there have been oppositional to it — usually traditionalist — currents, the American critic Wilson (Wilson, 2002) emphasizes: what is called postmodernism.

In the course of our research we will try to argue the philosophical and praxiological model of human life participation. However, we are well aware that the verification process will be sub-actively dependent. It is necessary to specify the following understanding:

1. The worldview of each person is formed from language, thinking and moral endeavours.
2. Worldview is the basis for world understanding and world attitude, in the final terms — communicative one.
3. Communicative world attitude forms a goal through the prism of the benefits of person-society relations.
4. The goal forms the concept of achievement of the goal, which is adequate to the moral principles, the actualized means of language — the transfer of information resources.
5. Achieving the goal is concretized in the cultural development, which forms the legal culture of relations, adequately organized way of realizing human abilities in society to obtain mutual benefit.
6. And, as we can logically note from the previous items, — the legal culture forms economic development.

Thus, the knowledge obtained, offered and transferred by means of communication (even in a broad sense) are fundamental in the development of social relations. The standard of living depends on one's attitude to oneself, living conditions and the possibility of self-realization, which not only satisfies one's own needs, but also evolutionarily becomes the foundation for the development and self-realization of others, thus serving progressive development as a whole, where the interests of each person are taken into account.

Through the prism of moral values, a person realizes his cultural level as a baggage and potential that allow him to adapt more quickly to reality (a powerful technical process). The well-known fact of the realization of intelligence had a psychological effect on an individual, who is an accomplice to progress.

Man is a thinking being who is a participant and witness of

obscenity or hypocrisy, which in appropriate situations have a meaning of social ranks, for the individual to gain influential position (Bergson, 2006).

In a winning situation, a person criticizes dogmatic ideals, his era. There is a problem of value orientations in the situation of choice of the average person: who to trust, a real figure who is successful (but not always morally) or classical orientations that orient a person to civic opinion, his reputation, his chosen path using the means to achieve the goal (Golovey, 2012).

There is a component of post fact in the perspective of human activity (I will do it and I do not care), the consequence of such an action does not provide an unambiguous assessment. In the direction of self-realization, a person at least theoretically focuses on positive moral values, recurrently appealing in its factors to love for his neighbour (attributive altruism). However, by its nature a person tends to individualism (conscious freedom to be oneself, to act according to one's own beliefs and one's own pragmatism). Scientific analysis and exploratory experience show that T. Hobbes was the first to propose comprehensive description of individual selfishness (Lyakh et al., 2017) in his work On the Citizen and On the State. The issue of the social contract is actualized and justified, which is based on:

▪ conscious desire, intentions, motivation, result;
▪ the ability to see one's own behaviour through the eyes of another person;
▪ a priori ability to take into account the actions of others from the position: no one is an enemy for himself;
▪ smart people will always come to an agreement with each other.

The set of alternatives is concretized in rational selfishness. The individual is aware of local dependence on society, justifies the principle of accumulation. Such a position provides for conscious cooperation, like-minded people, or interested persons who are integrated from the position of obtaining material benefits or material confirmation or justification of physical or intellectual inputs of a person.

Technical development has naturally turned into an exploiter of man, but the current state sets standards of success which confirms the depth of human knowledge in practical philosophy (Kyseliov, 2012). An integral component of a person's moral objectification is his altruistic (materially unmotivated and uninterested) natural consistent actions. Of course, in altruism it is difficult to avoid the principle of selectivity, however, it is an applied convincing love for one's neighbour, its targeted embodiment becomes successful when one wants to help (to another self) on both sides.

A certain social link (professional organization, religious community, legal institution, etc.) forms its moral outline of references that fit into the requirements of the era, world integration or empirical human needs. That is, universality accepts individuality to some extent. An important question is how to reconcile or harmonize the interests of the monadic and universal. To analyse this problem, we should turn to moral (and legal categories) — good — as the basis of social relations, the element of evil — as an integral companion of the dynamics of life, namely — the result of human activity, which is the result of choice (complex concept based on the specifics of choice between good and evil), dignity, humanity, justice. (Heidegger, 2016) Of course, there is no task of meticulous search for the truth, but the author considers certain aspects relevant. As we have already mentioned, each community develops a convenient system of rules of conduct in accordance with the time, economic, political, legal atmosphere of their state. Despite the ideally moral imperatives (for the external eye), the principle of using the moment and material opportunities for self-realization in the economic and legal sphere is successfully implemented. It should be noted that the religious component, albeit indirectly, by means of language, affects the formation of both interindividual values and the quality of interpersonal relationships, which affects the economic and legal culture of society.

Nowadays, the concept of "individualization of personality" is characterized as the greatest value, and the ideas of justice describe the conditions of individual existence that a person needs for its free expression through the philosophy of language — the perception of information. On this basis, modern society is assessed from the standpoint of how the protection of individual rights is realized and how it helps to self-realize and self-improve.

As Likhacheva notes in her works, each individual receives the relevant knowledge during study, this is a formative period and testifies to the culture of person's attitude. As you know, different scientific and educational problems are primarily related to the value content of the main factors that determine it (Heidegger, 2016). It is the educational space that is aimed at analysing worldview problems and their thorough substantiation.

The peculiarity of the author's worldview defines the boundaries of the main problematic issues, focuses on the ideas which recognize general conclusions concerning the research. The initial stage of a scholar's professional path is the coherence and interdependence of the values of education, science, worldview and philosophy. It is the scholar and the teacher who are the value-oriented vectors of the standard of existence of a teacher of a higher educational institution. The teacher is a specialist with a high level of moral qualities and high requirements for his personality, because his main task is to teach the individual to think and form his position in life, to be able to structure his values. Thus, everything starts with quality education, because it helps a person to realize himself in life. Considering the concept of "values", we can conclude that the humanity (their minds and hearts) continuously concerns about this issue; and reproduced culture by accumulating values that are transferred through communication" (Inglehart, 2006).

Antonio Monegal (CRSASH, 2018) reminds us of the complexity and ambiguity of the concept of value — a tool of cultural measurement, social and cultural norms, or measuring the answers and interpretation of ethics, human rights and ideologies. Culture is like the shell of an oyster with a pearl inside, and its quantitative measurement is like robbing its wealth. We must be aware that culture cannot and should not be limited by the digital tower.

4 Discussion

We can systematize the ideas from the material presented in in the article. In this research, we applied different approaches to the study of the problem, which allowed us, in general, to reveal the topic of the article and get the belief that a person's worldview is really formed from language, thinking and moral principles, being the basis for the formation of the world understanding and world attitude, which is ultimately communicative. The goal forms the concept of achieving the goal, which is adequate to the moral principles actualized by means of language — the transfer of information resource. Achieving the goal is concretized in cultural development, which forms the legal culture of relations, adequately organized way of realizing human abilities in society for mutual benefit. So, we proved that the communicative world attitude forms a goal through the prism of the benefits of man-society relations.

Indeed, the vast majority of modern philosophers believe that language has recently become the repository of philosophy. However, they are almost unanimous about the fact that this latest repository of philosophy is not protected from the current threats and challenges. However, in order to anticipate all the danger that will face the philosophy that has made a linguistic turn, it was not necessary to wait for the present. "The interweaving of language in the life world, in the fabric of various forms of life, socio-cultural practices, conventions, cultural traditions were noted not only in the context of Wittgenstein's therapy and his strategy of farewell to philosophy, but also within Heidegger's (Heidegger, 2016) project of more dramatic overcoming the metaphysics" (Braynin-Passek, 2002).

Intercultural dialogue can begin with a state of misunderstanding or "misunderstanding", it can adapt and become a functional dialogue (language goes through a process that has to change a long time, thus making intercultural communication a dynamic process of change; and adaptation is the process of existential hermeneutics (Gadamer, 2004). Moreover, in Gadamer's (2004) language, our ultimate existence in the world means that we are always open to further experience.

In modern philosophical and linguistic analysis of the phenomenon of language, we can conditionally distinguish two lines: The Wittgenstein line, which emphasizes the disproportion of language games, and the Frege line, which concerns with the search for a general theory of meaning. Proponents of the first postmodern approach emphasize the uniqueness of language, the disproportion of its pragmatics. Representatives of the second direction are dissatisfied with the absolutization of unique, plural characteristics of language as a cultural phenomenon in the concepts of radical postmodernists, and focus entirely in the modern spirit on the fundamental, absolute parameters of language. It is clear that distinguishing these lines of analysis of the phenomenon of language, we consider them as certain "ideal types". In reality, the situation is much more complicated. Sometimes these main lines intertwin, crossing the boundaries of competitors. There are some other approaches to understanding the phenomenon of language, which stand aside from these main lines of its study. According to modern philosophers, it leads to the pragmatics of natural language in its practical use.

However, we still have doubts about whether the knowledge gained, offered and transferred by means of communication is fundamental in the development of social relations. The standard of individual's life depends on his attitude to himself, living conditions and the possibility of self-realization, who not only meets his own needs, but also evolutionarily becomes the foundation for the development and self-realization of others.

5 Conclusions and Recommendations for Future Research

Summarizing the above, we note that language and action in postmodern philosophical discourse, concretized in the personal application of absolute (theoretical level) morality, appeals to two levels of motivation: rules that are generally accepted, and the exception, as a deviation from the rules, especially social morality. Modern philosophers describe the term "postmodern" as a modern historical stage of development of society. In order to establish harmony with his inner and outer world, a person needs to find his own way or method of communication. Thus, each individual must be more critical and adjust when choosing between desired and necessary according to the rules. Everyone should understand and be aware of his aspirations, the meaning of his actions and their consequences. Of course, there are other options, but they are an exception, so it is not worth focusing on them. Of course, the nature of life communications today is multifaceted, and a conscious, responsible and active person not always succeeds. We believe that this problem will be the motive for research in our future studies.

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Primary Paper Section: A

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BASIC SOFT SKILLS AS AN INTEGRAL COMPONENT OF STUDENT COMPETITIVENESS: CASE OF HIGHER EDUCATION IN UKRAINE

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Abstract: this study intends to identify the most necessary comprehensive skills that will increase students' ability to find a suitable job after graduation, as well as to identify the importance of soft skills in the student competitiveness in the labour market. The author selected several general scientific methods for the study, including an attempt to adapt the grouping and modelling method to the theoretical representation of the relationship between soft skills and student competitiveness. The article identified several promising areas of research, which will allow us to focus on in-depth study of the issue and its comprehensive scientific substantiation. The results of the study have several limitations that correlate with the previously identified areas of future research. They include only the theoretical substantiation of the hypotheses and the limitations of possible methods.

Keywords: "soft skills", "hard skills", professional adaptability, student competitiveness, functional skills, personal skills, student professional development program

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1 Introduction

Preparing students for a successful career is an important part of the work of every teacher and institution in general. In today's world, most educational and professional development programs do not, however, cover the skills that employers look for in job applicants. In particular, we are talking about such qualities as emergent leadership, adaptability, tolerance, and responsibility. All this is called soft skills today, and the Ukrainian version of "skills" is extremely often used by recruiters during interviews. This concept has not emerged recently and has a sufficient theoretical background, as evidenced by significant coverage in scientific and journalistic articles, blogs, websites of the world leading companies, etc.

In-depth study of the concept of soft skills arouse some difficulties, in particular, screening of information among all the variety of published achievements of science and journalism. Summarizing the references, including those not comprised in this article, the author concludes that soft skills are extremely important, and their development will inevitably lead to career growth, achievement of goals, financial independence, and stability. In particular, the paper (Koval, 2015) emphasizes the "fundamental change in the strategic goals of education and the transition to its anthropocentric, humanistic model, the formation of a new educational paradigm, and innovative teaching methods". The scholar's point of view is consistent with the views of the researcher, (Schulz, 2008) who emphasizes the importance of full integration of soft skills into the educational process. The World Bank analysts (World Bank, 2016) substantiated the hypothesis of the need to develop soft skills in terms of preparing students for future professional activity. This hypothesis was later developed in the work (Heckman & Kautz, 2012).

There are still discussions among scholars about the types of soft skills and their optimal set for prestigious job seekers in various fields. For example, work (Kozhushkina, 2018) presented a generalized classification of skills. Researchers in work (Berglund & Heintz, 2014) arranged the necessary skills for technical students. Article (Capretz & Ahmed, 2018) proposes a classification of skills for IT workers. Scientists in work (Yan et al., 2019) identified the most effective methods of training basic soft skills in Chinese higher educational institutions (HEIs) based on the experience of Australian higher educational institutions. The problems of effective methods of soft skills development in students of different academic majors are still unsolved, which is of great interest among high school teachers. (Hlazunova et al., 2019; Dluhunovych, 2019; Kazachiner, 2019; Nakhod, 2018; https://www.uschamberfoundation.org; Deming, 2017)

The literature review identified the most theoretically rich works that contain a thorough analysis of the conceptual framework:

1. Article (Dewiyani, 2015) advanced the issue of taking into account the type of personality during the soft skills development in students. The results obtained by the author regarding the prioritization of soft skills for each personality type are of theoretical value. Researcher in work (Patacsil & Tablatin, 2017) made earlier attempts to take into account personality types studying the skills of students of the Information Systems Department in solving mathematical problems.
2. Authors of the article (Guerra-Báez, 2019) applied gap analysis to determine a set of skills students should have during an internship in companies operating in different fields. This study was an attempt to adapt gap analysis to the study of soft skills.
3. In the work (Devedzic et al., 2018) outlined a method of developing soft skills in senior students outside the main curriculum.

Another research issue is the problem of measuring students' skills and their impact on future employment. Researchers in the article (West et al., 2016) substantiated the list of principles for different soft skills. Scientists in the work (Heckman & Kautz, 2013) initiated a discussion on the impact of teaching quality on the dynamics of soft skills development. In the paper (Wilkie, 2019) concluded that "achievement tests, which are most often used to assess soft skills, do not sufficiently reflect the personal skills, goals, motivation, and preferences that are valued in the labour market." Returning to the issue of student competitiveness in the labour market, scientists in work (Ortega, 2016) rightly noted that "modern teaching methods in high school are not adapted to modern conditions in the labour market." In article (Glazunova et al., 2017) compared success of students with different skill sets in the labour market.

The concept of soft skills is comparable to the concept of life skills proposed by the Department of Mental Health of the World Health Organization (1994), which defines soft skills as a set of socio-affective skills needed to interact with other people and to cope with everyday requirements and difficult situations. (Devedzic et al., 2018) Soft skills include personality traits, social qualities, communication, language, personal habits, and interpersonal communication skills that describe a person's relationship with other people (Schulz, 2008). There are dozens of soft skills that include competent and comfortable communication, collaboration and teamwork, critical thinking, problem-solving, leadership and responsibility, decision-making, flexibility and adaptability, time management, initiative and self-government, social and civic competencies, entrepreneurship, etc (Glazunova et al., 2017). These skills are complemented by special professional skills — hard skills, which are associated with a set of skills and the person's ability to perform a certain type of subject task or activity, such as working with machines, computer programming or statistical analysis (Vijaya, 2013). Functional skills are more cognitive, easier to learn and assess, as opposed to soft skills, which are more related to emotional and social intelligence, while being more problematic in terms of training and assessment. There is speculation that high school teachers may recognize students'

soft skills during studies and in other extracurricular situations, but they usually assess them subjectively, intuitively, and subconsciously (Devedzic et al., 2018). From the teachers' point of view, the main challenge in measuring students' soft skills is to monitor and assess how students develop those skills. In addition, there is still a lack of experience and recommendations for measuring and assessing students' soft skills. Quite a lot of effort and initiative has been applied to developing assessment methods to measure soft skills, but it is difficult to find examples of particular indicators for soft skills and experience of using these methods in practical assessments (Wilkie, 2019).

Although there is a broad consensus on the need to differentiate between cognitive and non-cognitive skills, there is less consensus on how to define soft skills and group them into general categories for the purpose of research and decision-making. There is also no clear consensus on which skills and their categories are most important (Monteiro de Carvalho & Rabechini Junior, 2015).

The most common soft skills structure is known as the Big Five, and includes the following broad categories and characteristics: (Heckman & Kautz, 2012)

Openness to New Experiences — the American Psychological Association (APA) defines it as "the tendency to be open to new aesthetic, cultural, or intellectual experiences." People who are "open" have a wide range of interests and are often positioned as interesting, artistic, creative and unconventional.

Conscientiousness – the APA defines it as a "tendency to be organized, responsible, and hardworking." Conscious people are purposeful, effective, ambitious, and self-disciplined. They have a strong professional ethic, are persistent in overcoming obstacles, can postpone immediate satisfaction in favour of long-term goals, while not being impulsive. These characteristics are most strongly associated with success in learning outcomes.
Extraversion – the APA defines it as "the orientation of one's interests and energies towards the outer world of people and things, rather than to the inner world of subjective experience." Extroverts are friendly, sociable, confident, energetic, enterprising, and full of enthusiasm.

Agreeableness – the APA defines it as "the tendency to act in a cooperative, unselfish manner." Agreeable people are often described as sensitive/receptive, modest, flexible, socially inclined, altruistic, and tolerant.

Emotional Stability – according to the definition of APA, it refers to "predictability and consistency in emotional reactions, with absence of rapid mood changes."

There is still a question to which scholars still do not have a clear answer, namely: What is the importance of these skills, and how to effectively develop them during studies at high school? (26) Several important research findings may shed some light on the relationship between skills and competitiveness:

▪ Both soft skills and hard skills are related to the future success of students in the labour market, in fact, their competitiveness. Although different skills may be more important for different activities, research shows a strong correlation between cognitive and non-cognitive skills and success in professional life. At the same time, the research (Wilkie, 2019) showed that cognitive skills alone cannot explain all the differences in life outcomes, and that soft skills are also associated with benefits that go beyond studies, health, happiness, and social behaviour.
▪ Developed skills often generate new skills (Guerra-Báez, 2019). Hypothetically, soft skills and hard skills are associated with career success, and it is also true that these skills are often interrelated, and that a combination of both skills can lead to the highest results.
▪ It is better to develop certain skills from an early age, but the window of opportunity for the development of soft skill" can be much wider; thus, soft skills can be developed

regardless of age, social status, level of education, living environment, etc (Devedzic et al., 2018).
▪ Soft skills can help low-welfare students to reduce the gap with more successful peers to successfully interact with the people around them and face new challenges. Some studies show that soft skills can be particularly important in helping poor students overcome shortcomings and be better prepared for the labour market, and therefore have every chance of getting a competitive job and being successful (Schulz, 2008).
▪ Both breeding and the educational institution have a significant impact on the future competitiveness of students. If there is no positive outcome, it may be the result of poor implementation of the educational process. Thus, family breeding, the social environment of the student, and higher education together are important in the formation and development of soft skills (World Bank, 2016; Skaife et al., 2016).

Therefore, we support the hypothesis that the level of development of soft skills is one of the defining components of student competitiveness, but empirical confirmation of this hypothesis has not been found so far, which is of great interest. Thus, the objective of this study was to identify the most necessary skills that will allow students to find a suitable job after graduation, as well as to identify the importance of soft skills in the competitiveness of students in the labour market.

2 Methods and Materials

During the research, we started primarily from general scientific research methods. In particular, we used the method of abstraction and grouping to identify the most appropriate skills of students; as well as the modelling method to distinguish the relationship between soft skills and competitiveness.

The research of scholars considered by the author of this article during its preparation testifies to a few attempts to obtain empirical results, which is due to the lack of measures of both components: soft skills and competitiveness. It is extremely important in modelling the results and their practical interpretation to be based on data that reflect real trends in student skills and their level of competitiveness, but today surveys are one of the main sources of information. Their results can hardly be considered absolutely objective, while they are still significant. In particular, surveys in this area are limited not only by the lack of soft skills measures, but also by the personal expectations of respondents regarding the assessment of their abilities, underestimation or exaggeration of soft skills, etc. Besides questionnaires, interviews are popular.

The main hypotheses of the study include:

▪ Assumptions about the close relationship between soft skills and student competitiveness in the labour market. Using the modelling method, we attempted to schematically represent this relationship and justify its weight taking into account various factors of influence;
▪ Soft skills are an integral element of student competitiveness. To confirm this hypothesis, we used a survey method (Scaffidi, 2018).

The objects of this study were 10 largest universities in Ukraine (identified in the rating of the largest universities in Ukraine 2020, which is prepared annually by the portal Osvita.ua):

▪ Taras Shevchenko National University of Kyiv.
▪ National University of Kyiv-Mohyla Academy.
▪ Igor Sikorsky Kyiv Polytechnic Institute.
▪ Ivan Franko National University of Lviv.
▪ V. N. Karazin Kharkiv National University.
▪ Danylo Halytsky Lviv National Medical University.
▪ Lviv Polytechnic National University.
▪ Odesa I. I. Mechnikov National University.
▪ Yuriy Fedkovych Chernivtsi National University.
▪ Uzhhorod National University.

We selected last year students because of: the opportunity to evaluate the "soft skills" already obtained during their junior years in the university, the presence of a formed opinion on the quality of the curriculum. Also, senior students are either looking for the first job or are already combining work and study. The last criterion affected the sample of students, respectively, 50% of those already working and 50% of students who were looking for a job at the time of we conducted the survey.

The total number of students involved in the empirical part of the experiment was 200 students. To ensure gender equality, the distribution between men and women was equal, 100 men and 100 women. We developed the author's questionnaire after reviewing the literature and focus groups of students of different majors. It was intended to capture:

▪ demographic data of respondents;
▪ compliance of the curriculum with expectations;
▪ experience of development and attitude to soft skills;
▪ the impact of soft skills on competitiveness in the labour market.

The author considered the questionnaire for validity for individuals, tested on a sample of students, and revised accordingly. Participants' responses were rated on a 5-point Likert scale (Nagang et al., 2015) ranging from 1=strongly disagree to 5=strongly agree.

The method of study and generalization was used due to the need to identify the most useful skills in terms of competitiveness. The methodology of this research is also based on a system approach in revealing and solving the problem of selecting the most appropriate skills to increase the student competitiveness.

3 Results

Undoubtedly, students are potential employees of profitable companies and future employers. It is essential to invest in soft skills to make their competitiveness in the labour market grow.

These are soft skills that will help students to transform into important corporate resources. So, what student competitiveness means? The competitiveness of an individual in a more general sense is a set of knowledge, skills and capabilities that will help the employee to get the maximum income in the chosen field of professional activity and significantly improve the quality of his life. If we consider this concept in terms of the labour market, and each student as a particular product ("labour"), competitiveness should be interpreted as a set of quality and cost characteristics that meet the employer's needs in the chosen socio-economic sphere. This set can be conventionally divided into hard skills and soft skills. Until the 90's of the last century, hard skills, or functional skills, were considered basic for the beginning of a professional career and only later employers realized the importance of developing soft skills to achieve positive results in terms of company development, as well as its financial and economic goals. We can assume that in the context of globalization and a significant increase in competition in the market, the relationship of functional and personal skills is one to one, i.e. they are equally important in shaping the student's competitiveness in the labour market. However, it is worth emphasizing that this assumption is true for students, but for people with work experience and applicants for executive positions this relationship shifts towards soft skills. The experience of many companies shows that hard skills allow students to get a job, and soft skills allow making a successful career.

Review and study of existing approaches to the classification of personal skills made it possible to group skills, taking into account their relationship with competitiveness (Figure 1), as well as the selection of each of their mandatory components, as well as useful skills that will positively affect the job seeker's image after graduation (Table 1). It is important to keep in mind that there is no single definition for any of these cases, all soft skills were measured from different points of view, and the definitions presented serve to present the general concept only. Thus, there is a need to substantiate in more detail the need to develop skills that depend on the future field of the student's professional activity.

Table 1. Student's soft skills grouping

Item No.	Skill groups	Required skills	Useful skills
1	Communicative Skills	Ability to clearly, effectively and confidently present their ideas orally or in writing; ability to practice active listening and response skills; ability to clearly and confidently represent the audience	Ability to use technology during presentations; ability to discuss and reach consensus; ability to communicate with people having different cultural backgrounds; ability to expand their own communication skills; ability to use non-oral skills
2	Critical Thinking and Problem-Solving Skills	Ability to identify and analyse problems in a difficult situation and make an informed assessment	Ability to think further, the ability to draw conclusions based on reliable evidence
3	Team Work	Ability to build mutual understanding, interact effectively and work with other people	Ability to contribute to the planning and coordination of team work
4	Life-Long Learning & Information Management Skills	Ability to find and manage current information from various sources; ability to generate new ideas, independent learning ability	Ability to develop an inquisitive mind and seek new knowledge
5	Entrepreneurship skills	Ability to identify employment opportunities	Ability to offer business opportunities; ability to create, examine and search for business opportunities and jobs; ability to be self-employed
6	Ethics, Moral & Professionalism	Ability to professionally understand the particulars of economic crises, environmental, social and cultural aspects of life. The ability to analyse and make decisions on ethics-related issues	Ability to practice ethical attitudes in addition to accountability to society
7	Leadership skills	Knowledge of basic leadership theories; ability to manage projects	Ability to understand and alternately be a leader and follower; ability to control team members

Thus, each of the above soft skills consists of several sub-skills. These sub-skills fall into two categories. The first category determines the soft skills that everyone should have, and the second category represents the soft skills that increase one's competitiveness in the labour market. However, it should be emphasized that the development and practice of both sub-categories is a prerequisite for building a successful career in the chosen field. All elements of soft skills must be developed by each individual student, and assessed effectively and comprehensively. In fact, the responsibility for this task lies with high school, which must build educational programs taking into account the growing demands of employers and the changing relevance of the set of basic skills towards soft skills.

Using the modelling method, we made an attempt to distinguish the relationship of soft skills (Figure 1). The previously proposed hypothesis can be supported by a schematic representation of changes in the level of competitiveness, taking into account the factor of development of certain skill groups. In the simulated situation, it is advisable to have well-developed communication, critical thinking and problem-solving skills at the first stage of search for a decent job. According to a survey of employers in the United States, these skills are, in the opinion of employers, basic for all job seekers, including those without work experience (78% of respondents). In fact, according to analysts,

the availability of these basic skills can fill gaps in the lack of previous work experience. It is logical that the conditions of modern market relations dictate the requirements for future employees, and previous work experience is a great advantage in the selection of personnel. Therefore, students try to start a professional activity while studying. The literature review and practice show that, first of all, it is not always possible to get the desired job and position. However, the first work experience allows people, in addition to basic skills, to gradually develop lifelong learning skills, information management and entrepreneurial skills.
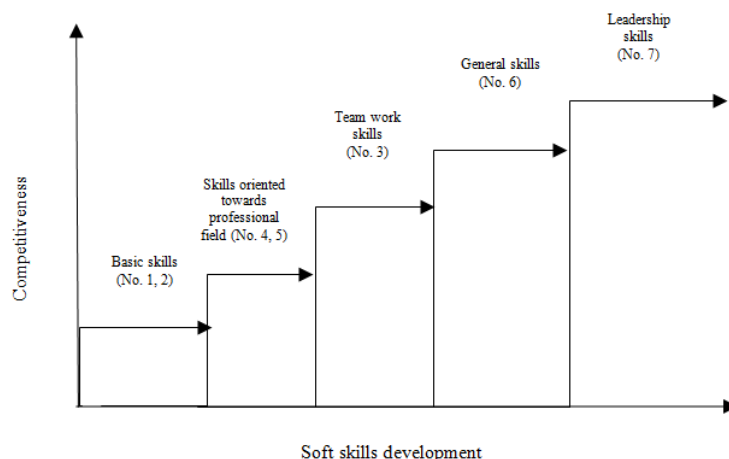
Figure 1. Hypothetical representation of the model of the relationship between soft skills and student competitiveness

Regarding the next group of skills, which has a positive impact on improving the competitiveness of students, namely teamwork skills, there is some discussion about its classification in the third group. Employers do not usually demand teamwork skills at first, as not all operational tasks and not all professional activities require it. Regarding the next group of "general" skills, their development begins in early childhood and continues throughout life. The final link of the presented model is leadership skills. They are important in the job search phase, but are more pronounced in daily operational tasks and career advancement.

The issue of a set of necessary and basic skills for students is sufficiently studied. Instead, more and more discussions arise around the issue of adaptation of existing educational programs in terms of forming a rational relationship between students' hard skills and soft skills. In general, soft skills can be developed in students through formal learning and compulsory curriculum, as well as other learning activities, according to two models: autonomous and built-in. In case of an autonomous model, students have the opportunity to develop soft skills through special courses and various types of practices that are carefully planned for this purpose. Typically, these educational components are offered in the form of university courses (for example, English language, majors, etc.), and elective courses (e.g., public speaking, critical thinking, etc.). A few years ago, these courses were more optional, but increased competition among high schools and in the labour market has led to changes in curricula due to the separation of these courses as compulsory or optional elements of educational programs. The number of courses and credits in this category depends on the curriculum design and program requirements. An autonomous disciplinary model can also be initiated by encouraging students to enrol in several additional courses, which may be credited as a secondary course different from the initial program. Completion of these courses will allow students not only to increase their competitiveness, but also to obtain additional information for the future employer to set out in their CVs.

As for another model (built-in), which, subjectively in part, can be considered more successful, the approach of introducing soft skills in teaching and learning activities throughout the curriculum is used. It does not require the student to take special courses, as in an independent subject model. Instead, students learn to master soft skills through a variety of formal learning

activities that are planned and implemented using particular strategies and methods. Thus, the content and learning outcomes that must be achieved for the relevant courses are retained. Learning outcomes related to soft skills will be integrated, and will be part of the learning outcomes of the relevant courses. The effectiveness of using this model is directly proportional to the skills and abilities of teachers to use different strategies and teaching methods that are completely focused on students. This model also provides for active teaching and learning with the active student involvement.

For the last few years, employers, realizing the importance and necessity of professional staff, have been working towards the preliminary training of employees for work in various fields. In highly developed countries, an increasing number of companies are focusing on student education as part of their business strategy. They see value in teaching students the skills needed to succeed in the workplace, and thus strengthen their competitiveness. The most striking example of such cooperation is Nike (Oregon Schools, AVID), which launched the Classroom Solutions initiative. Investing in Classroom Solutions has allowed educators to more effectively help young people develop the skills needed for future professional activity. On the other hand, employers can help establish and develop soft skills by providing teachers and administrations of educational institutions with access to proven professional development programs from recognized educational non-profit organizations. Thus, it is quite possible to assume that employers are also interested in the developed soft skills of employees, which will have a positive impact on the overall financial results of the company.

The survey conducted among students of Ukrainian universities allowed to confirm the hypothesis that soft skills is an integral element of student competitiveness (Table 2). However, only 24% are confident in employment immediately after graduation. The number of respondents who could not decide on the answer is also worth noting. The percentage of such respondents is quite significant, which indicates some uncertainty about the effectiveness of training and the future in general. Also we could specify which exactly skills were highly evaluated (Figure 2), particularly: team work, ethics, moral & professional, communicative skills.

Table 2.   The results of a survey of students

Question	Likert scale				
	1 - strongly disagree	2 - partially disagree	3 - hard to say	4 - partially agree	5 - completely agree
The curriculum at university meets your expectations	16%	9%	30%	22%	23%
During my studies I learned how to articulate my ideas clearly, with confidence and communicate effectively	7%	2%	26%	33%	32%
The acquired skills will allow me to analyse problems situations more deeply and respond to them	5%	7%	30%	40%	18%
I understand and know how to work in a team	1%	3%	12%	29%	55%
After graduation, I will be able to analyse and make decisions, will be responsible to society	2%	5%	14%	38%	41%
The acquired leadership skills will allow me to manage various projects in the future	11%	16%	36%	20%	17%
The skills developed during the training will allow you to get a job immediately after graduation	19%	22%	35%	13%	11%
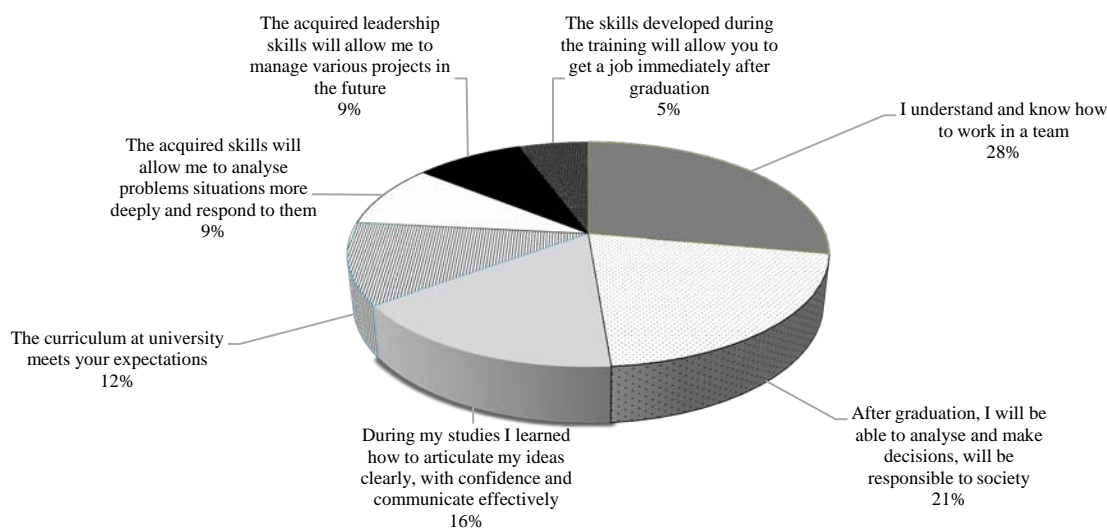
Figure 2. Representation of survey results

4 Research Limitations

The main limitation for this study is only the theoretical justification of the hypotheses and the limitations of possible methods due to the lack of developed indicators for measuring soft skills and student competitiveness.

5 Discussion

This study was a contribution to the study of the problem of developing soft skills in students in terms of forming their competitiveness in the labour market. First of all, the study expanded previous research as regards explaining the importance of soft skills in the professional development of students; (Guerra-Báez, 2019) second, the study of the relationship between competitiveness in the labour market and skills acquired during training; (Heckman & Kautz, 2012) third, ways to integrate and adapt educational programs of higher educational institutions to new employment conditions taking into account the employers' growing demands to potential candidates (Dewiyani, 2015).

As a result of the development of the hypothesis of a close relationship between soft skills and the competitiveness of students in the labour market, the author presents a schematic model, which demonstrates not only the importance of each of the selected groups of soft skills in general competitiveness, but also close relationship of these concepts, taking into account the changing factor of modern requirements of employers and the labour market in general (Deming, 2017; Ortega, 2016; Skaife et al., 2016).

The study of soft skills and the study of various existing scientific approaches (Schulz, 2008; Devedzic et al., 2018; Skaife et al., 2016) identified several groups of skills that develop students to varying degrees, including: communication skills; critical thinking and problem solving skills; team work; lifelong learning and information management skills; entrepreneurial skills, ethics, morals and professionalism; leadership skills. Using methods of study and generalization, an attempt was made to confirm the hypothesis that soft skills are an integral element of student competitiveness. The above statements have not fully covered the open issues.

6 Conclusions and Recommendations for Future Research

This study gave an idea of the importance of developing soft skills in students and their impact on future competitiveness in the labour market.

Studying the most appropriate list of personal skills, we identified several groups that have a significant impact on the formation of the future professional portrait of students. In particular, we identified the following groups: communication skills, critical thinking and problem-solving skills, teamwork, lifelong learning and information management skills, entrepreneurial skills, ethics, morality and professionalism, leadership skills. Based on the reviewed studies and valid scientific results, we made an attempt to present a schematic model of the relationship between soft skills and student competitiveness. Along with the main results of the study, we made a conclusion about the importance of parenting and high school for the development of soft skills in students and their practical application.

In addition to the obtained results, we revealed the line of further research. First of all, it is worth paying attention to a more detailed study and development of quantitative and qualitative indicators that will provide an opportunity to more objectively assess the level of competitiveness of students of higher educational institutions. The results of the study can be considered preliminary due to several limitations that correlate with the previously identified areas of further research. They include only the theoretical substantiation of the hypotheses and the limitations of possible methods due to the lack of developed indicators for measuring soft skills and student competitiveness.

This study also provides an opportunity to further examine the issue of the development of soft skills at different levels of development of children and adolescents, determine the role of parents and high school in shaping student consciousness, and justify the factors influencing professional and personal skills.

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Primary Paper Section: A

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HYBRID THREATS AND THE TRANSFORMATION OF THE STATE POLITICAL INSTITUTE: A NEO-INSTITUTIONAL APPROACH

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Abstract: Hybrid expansion on the information space is spreading, there is no reason to believe that hybrid threats are declining. Hybrid aggression is growing, threatening the political security of democracies. The article reviews hybrid influences and threats. The study focuses on the most influential player – the Russian Federation, which poses one of the greatest hybrid threats to states, ignoring the generally accepted civilizational norms of behavior, rules and morals. The factual data were collected and analyzed for the period of 1988–2020 and covered a number of hybrid threats, methods of distribution, methods of implementation, social media used and proven facts. The study focused on the most influential hybrid threats, including propaganda, cyber attacks, hybrid wars and discrediting government agencies.

Keywords: propaganda, cyber attack, hybrid war, political parties, methods and ways of hybrid attacks.

1 Introduction

The rapid development of information technologies in the late twentieth and early twenty-first century has become not only a positive factor, but at the same time has had catastrophic consequences for modern society. Information warfare has become the most important lever of hybrid war, in which zombie reality becomes threatening, becomes an efficient tool of politics, distorts the political institutions of states and turns the opponent into an enemy (Fridman et al., 2019).

Mankind has encountered a new phenomenon – hybrid warfare (Hoffman, 2011), which combines traditional methods of war with non-traditional ones. In an "undeclared" hybrid war the aggressor uses Special Forces, irregular armed groups, supports internal conflicts and separatist movements, and successfully uses all the tools of propaganda, diplomatic measures, cyber attacks, and economic pressure (Caliskan, 2019). In addition, hybrid threats pose a particular threat, as the enemy is able to use a coordinated range of different resources through diplomatic, military, intelligence and economic influence by distorting information and imposing its own distorted reality (Giegerich, 2016). Deadly and destructive attacks can be launched and carried out instantly from distant places, leaving no trace to determine their origin (Stoker, 2016). Hybrid attacks are not only a tool of asymmetric or non-state players. An important role, unfortunately, is played by totalitarian state structures (Cox et al., 2012).

The greatest threat to the stability and democracy of political institutions is posed by states with a totalitarian regime, in which formal state institutions do not play a significant role. Dominant in such destructive regimes is the neo-institutional approach in the political sphere, in which political institutions are treated through the prism of the relationship between formal norms and informal rules of the game (Andress & Winterfeld, 2011; Lazaridis et al., 2016).

The Russian Federation is an example of a state in which generally accepted models of democratization show their incompleteness and insufficiency. The Kremlin uses the full range of its government bodies to advance its foreign policy abroad in a rather aggressive manner, using all means of hybrid warfare: propaganda, espionage, sabotage, cyber-attacks and military intervention (Renz, 2016). It should be noted that Russia's hybrid policy is characterized by a systematic and coordinated nature, the main purpose of which is to discredit and undermine the democratic values of Western society, to transform and distort the European political system (Treisman, 2018).

The aim of this study was to highlight the most significant hybrid threats, challenges and consequences they bring. The article analyzes the means and methods by which hybrid attacks have been successfully implemented, as well as the impact they have had on the political institutions of countries that have undergone the hybrid influence. Emphasis is placed on the neo-institutional approaches of individual states, which cause a hybrid threat to the political institutions of democratic countries.

2 Methods

2.1 Data Sources

The most significant hybrid threats and all the challenges they pose to the stability and democracy of political institutions have been selected for this study. Such hybrid threats include: propaganda, cyber attacks, hybrid wars, discrediting government agencies. Table 1 details the discussed in the article tools through which hybrid attacks were carried out, as well as the methods of their implementation.

Table 1. The list of researched hybrid threats, methods of distribution and ways of their implementation

Hybrid threats	Methods of distribution	Methods of implementation	Used social media / Proven facts
Propaganda	Television and radio	Information manipulation and disinformation through television and radio	Russia Today, Sputnik, China Daily, Press TV, TRC
	Digital platforms	Creating provocative Facebook pages	"Blacktivist", "Being Patriotic", "Secured Borders","Texas Rebels"
	Blogs and sites	Dissemination of false information	ZeroHedge.com referral network
Cyber attacks	Internet	Disconnect from the Internet	2007 - Estonia: the work of all state institutions is paralyzed, 2009 - Kyrgyzstan: US military base is evicted
		Intervention into the Internet to coordinate the military actions	2014 - Ukraine: Crimea is occupied by Russia
		Search and retrieve of information	2015 - Germany: attempts to capture data on the work of the Bundestag and NATO, 2016 - USA: penetration to confidential information of the Democratic Party
Hybrid wars	Military conflicts	Direct military support	1988-1994 - Azerbaijan: Armenia's occupation of seven districts of Azerbaijan and Nagorno-Karabakh with Russian

			support for the Armenian army. The military conflict has become frozen. 2008 - Georgia: Russia's military support for the self-proclaimed republics of South Ossetia and Abkhazia. In 2020 Azerbaijan's army has won back by military means the greater part of this territory
		Introduction of a peacekeeping contingent	1992 – Moldova: Prydnistrovia conflict, bringing in the peacekeeping contingent - the 14th Russian Army from the territory of Moldova. The military conflict has become frozen
		Annexation of the territory	2014 – Ukraine: Russia annexes the Autonomous Republic of Crimea and the city of Sevastopol. Ukrainian territories are still under occupation
		Indirect military support is disguised as actions of local marionettes	2014 – Ukraine: Russia, using the so-called "green men" and numerous forces of Russian troops, occupied certain areas of Donetsk and Luhansk regions. The military conflict still continues with variable intensity
Discrediting government agencies	Support of loyal political parties	Financial assistance	Parties that help to legitimize the Kremlin's policies and increase Russian disinformation – France: National Front, United Kingdom: British National Party
		Ideological support	Parties that are loyal to the pro-Moscow worldview – Germany: Alternative for Germany, Austria: Freedom, Greece: Golden Dawn, Hungary: Jobbik, Italy: Northern League, Belgium: Vlaams Belang

Information on the impact of propaganda was obtained from a number of sources, including: social media, digital platforms, blogs and sites (Bugayova & Barros, 2020; Helmus et al.,2018). With regard to cyber attacks carried out via the Internet, the following data were used to cover individual cyber attacks: disconnection from the Internet (Synovitz, 2009; Traynor, 2007). interference in the Internet to coordinate the military actions (Kofman et al., 2017), search and retrieval of information (BBC News, 2016; Hamburger & Tumulty, 2016). To analyze the devastating effects of the hybrid wars that caused the frozen military conflicts, the following sources have been developed that demonstrate different ways of waging a hybrid war, including: direct military support (Allison, 2009; BBC News, 2020) bringing in the peacekeeping contingent (Treisman, 2018; Helmus et al., 2018), annexation of the territory (Matveev et al., 2009) indirect military support disguised as local marionettes. (Antonyuk & Malskyy, 2016) Information on discrediting government structures by supporting political parties was obtained from a number of sources (Lazaridis et al., 2016; Kramer & Speranza, 2017).

2.2 Analytical Approach

This research is based on data that indicated hybrid threats and their impact on the transformation of political institutions of states, as well as the role of informal institutions in political processes. A number of theoretical research methods were used and combined in the work: historical and logical methods, analysis, synthesis, classification, comparison, generalization and analogy, induction and interpretation. The methodological basis of the study consists of documents and published factual or statistical data that demonstrate the speed of political events and directly cover issues of hybrid threats, including disinformation, its global impact and potential consequences for the political systems of individual states, Internet intervention and governance, military hybrid interventions and threats that occurred within the time period of 1998–2020.

3 Results

3.1 Consequences of the Influence of Propaganda

Let us consider methods of disseminating propaganda through a number of information sources, among which the most efficient are television, radio, digital platforms, blogs and websites.

One of the most influential means of propaganda of Russian policy on the European continent and in the United States is the massive offensive propaganda by the powerful Russian foreign-language speaking companies Russia Today and Sputnik, which effectively promote Russian ideology and the concept of "Russian world". Russia Today and Sputnik started their activities at the beginning of the XXI century and today these media are located in 100 countries around the world and are presented in 30 languages. This allows Russia to completely manipulate public opinion, destabilize civil society and encourage Western citizens to question the veracity or impartiality of the news they receive from state social media. Similar tactics of information manipulation is inherent in some TV channels, among which we can distinguish the Chinese TV channel China Daily, the Iranian Press TV and the Turkish radio and television corporation TRC.

To overcome hybrid threats for the political institutions of Western countries, the European Commission at the end of 2018 drew up an action plan against false propaganda and disinformation. The plan had four components: 1 – to improve the capacity of European Union institutions to reveal, analyze and detect disinformation; 2 – to coordinate and strengthen the joint response to disinformation; 3 – to mobilize the private sector to combat disinformation; 4 – to raise public awareness of manipulative propaganda and to increase society's resilience to disinformation.

One of the important and efficient means of manipulation is digital platforms, which include a number of social networks, among which an important role is played by Facebook, Twitter, Instagram, Messaging apps, YouTube. To analyze the spread of strategic political propaganda, let us consider the example of one important social platform – Facebook. A rather important tool of Russian propaganda in the United States is the creation of dozens of Facebook pages aimed at shaking the political institution of the state by dividing society into different social groups and inciting racial, religious and political hatred. In particular, a page "Blacktivist" was created for the exploitation of racial affiliation, the page "Being Patriotic" was called to form a negative opinion in society about refugees. To create social tension on religious grounds, the page "Secured Borders" was created, which aimed to quarrel Muslims with Christians. The pages that incited citizens to violate the political-administrative division of the United States include "Texas Rebels".

A fairly illustrative example of propaganda that poses a hybrid threat to the political institution of states is the English-language

referral network ZeroHedge.com, which includes seventeen blogs and sites: brotherjohnf.com, journal-neo.org, informationclearinghouse.info, thesaker.is, voltairenet.org, veteranstoday.com, stevequayle.com, beforeitsnews.com, endoftheamericandream.com, rense.com, paulcraigroberts.org, goldsilver.com, counterpunch.org, nakedcapitalism.com, globalresearch.ca, washingtonsblog.com, drudgereport.com. ZeroHedge.com is aimed primarily at the American audience. It provides high-quality news for the financial industry and is among the most popular financial blogs in the United States. This allows together with financial news to spread false and loyal to Kremlin policy among a wide range of Internet consumers.

3.2 Consequences of Cyber Attacks

Cyber attacks pose a significant threat primarily to the national security of the state, its constitutional values and the rule of law. Cyber espionage is mostly aimed at stealing commercial developments, especially in the aerospace and communications industries. A special threat is posed by the cyber attacks of the political nature of the Russian secret services, whose actions are aimed at exerting pressure or influencing the course of political events in a particular country, especially with the aim of falsification of elections in a number of Western countries. To demonstrate the impact of cyber attacks on the stability of political institutions we present a number of examples of cybercrime during 2007-2016.

One of the methods of cyber attack aimed to punish governments for certain political acts that Russia did not like was to temporarily disconnect from the Internet, which paralyzed the work of all governmental agencies. In particular, in 2007 such a cyber attack took place in Estonia as punishment for the intention to move the Russian World War II memorial and the graves of Russian soldiers.

Among the effective cyber attacks of the Russian secret services is the hacker attack in 2009, which caused the closure of two of the four Internet providers in Kyrgyzstan. The president of this republic was under pressure to evict a US military base. The goal was achieved. In addition, after the closure of the military base in Kyrgyzstan, $ 2 billion were provided as aid and loans from the Kremlin.

One of the largest cyber attacks carried out by Russian special services took place in 2014. Interference with the Internet in Ukraine has allowed the Russian government to coordinate the military actions, invade of pro-Russian insurgents armed by Russia, and take control of Crimea.

In 2015, a large-scale hacker attack was carried out against the German Bundestag computer network. The purpose of the intrusion was to search for information that concerned not only the work of the Bundestag, but also information about the leaders of Germany and NATO.

Examples of cybercrime to influence elections in democratic countries include Russian hackers' intrusion into Democratic Party information servers and gaining access to personal emails of the Party's officials to discredit presidential candidate Hillary Clinton.

3.3 Consequences of the Influence of Hybrid Wars

In the late twentieth century, after the collapse of the Soviet Union, Russia launched a series of hybrid wars within the post-Soviet space, characterized by the use of irregular armed groups, local criminal groups and regular Russian armed forces. However, the Kremlin, while officially denying its involvement in armed conflicts, did not formally bear any legal responsibility for the aggression committed against a number of states. Let us consider military conflicts that have the features of a hybrid war and were initiated by Russia since more than 30 years ago.

The first military conflict supported by Russia on the part of Armenia should be attributed to the territorial division of Nagorno Karabakh between the Muslim state Azerbaijan and the Christian country Armenia. As a result of the Armenian-Azerbaijan war of 1988–1994 Armenia took control, apart from Nagorno-Karabakh, of the territory of seven Azerbaijan districts around it. Together with Karabakh, they make up 20% of Azerbaijan's territory within its internationally recognized borders. This conflict continues till present. Despite the fact that the UN adopted four resolutions in 1993 recognizing the occupation of seven districts by Armenia, Nagorno-Karabakh during a long time had an uncertain status, a buffer zone controlled by the Armenian army. Without the Russia's direct support of the Armenian army this military conflict would not have acquired the status of a frozen one. In 2020 Azerbaijan's army has won back by military means the greater part of this territory.

The second hybrid aggression, the so-called Prydnistrovian conflict, began in 1992. It was an armed confrontation between Moldova and Prydnistrovia encouraged by Russia after Moldova gained independence and sovereignty from the Soviet Union. At that time, there were several units of the 14th Russian Army, which Moscow quickly "retrained" as "peacekeepers". Despite Russia's commitment during the 1999 OSCE Istanbul Summit to withdraw its 14th Army from Moldova by 2001, it has not kept its promises. The conflict still remains unresolved.

The third military aggression in terms of hybrid war is the events in Georgia in 2008. Russia then acted as a peacemaker on the side of the self-proclaimed republics of South Ossetia and Abkhazia, immediately after the end of the military actions. The Kremlin has supported the state independence of South Ossetia and Abkhazia, taken over the financial support of these Georgian regions, and established military bases on their territory. Without Russia's open aggression against Georgia in 2008 and its support of the self-proclaimed leaders of Abkhazia and South Ossetia, Georgia would not have lost 20% of its territory, and the frozen military conflict would not still exist.

Without incurring any punishment from the international community for the military aggressions in the Caucasus and Moldova during 1999–2008, Russia decided to start its largest hybrid war in early 2014, which aimed to block Ukraine's European and Euro-Atlantic course and return it to the sphere of the Russian influence. In February 2014, the Russian Federation, violating the norms and principles of international law as well as bilateral and multilateral agreements, annexed the Autonomous Republic of Crimea and Sevastopol. The next step was a covert hybrid war in the Donbas, in which Russia used military "special forces" of so-called "green men", intelligence officers and numerous forces of Russian troops disguised as local Russian marionettes to occupy parts of Donetsk and Luhansk regions. Like the above-mentioned three hybrid wars launched by the Russian Federation, the hybrid aggression against Ukraine with the steady Kremlin's participation has turned into a military conflict that lasts till present with variable intensity.

3.4 Consequences of Discrediting State Institutions

European countries also experience hybrid threats from the Russian Federation, which undermine European Union and support the political parties loyal to the Kremlin. The coming to power of anti-system forces in the European Union significantly complicates the looming financial and migration crises and other important problems that weaken the political and economic role of the EU in the world.

For example, Russian banks in France are actively financing the National Front, which through this party's activities legitimizes the Kremlin's policy and intensifies Russian disinformation. The Institute of Democracy and Cooperation (Institut de la democracyie et de la coopération) was established with the same intentions, headed by a former Russian member of parliament. This Institute is working hard to give Russia a positive image in France. The Kremlin is exerting considerable influence on

British public opinion through the British National Party (BNP), which has intensified its political activities in recent years, increasing the number of candidates running in elections and winning more and more seats in local councils.

In addition, there are a number of parties in Europe for which Russia is not responsible, but these parties are loyal to the pro-Moscow worldview. These include far right, such as the Alternative for Germany (AfD), the Austrian Freedom Party (FPO), the Greek Golden Dawn, the Hungarian Jobbik, the Italian Northern League and the Belgian Vlaams Belang (VB). Besides, there are pro-Russian far left parties in Europe, among which the Spanish party Podemos, the Greek Syriza and the German Die Linke are particularly loyal to the Kremlin's policies. Each of these parties has its own ideological platform, but what they have in common is that the above-mentioned parties support the policies of the Russian Federation and defend the Kremlin's interests. Some of them are skeptical about the future of the European Union thus destabilizing the European politics and European democratic values.

4 Discussion

Hybrid threats in today's world are gaining a dangerous scope and demonstrate that targeted hybrid aggression can destabilize not only regional but also global security structures (Fridman et al., 2019). Expert research and our data show that democratic societies are particularly vulnerable to hybrid influences, as they profess the values of political pluralism, liberal freedom of speech and meetings, respect for individual rights, the rule of law, tolerance and political correctness (Murray & Mansoor, 2012). At the same time, totalitarian regimes, characterized by a lack of rule of law and the predominance of informal institutions, use aggressive hybrid expansion against democratic states, disregarding generally accepted civilizational norms of behavior, rules and morals (Helmke & Levitsky, 2004).

According to author (Treisman, 2018) and our research, the Russian Federation poses one of the greatest hybrid threats not only to a number of political institutions in the post-Soviet space, but also to European states and the United States. As it is shown in Table 1, one of the important resources used by Russia and Kremlin-loyal states and regimes is offensive propaganda through a range of media available to the general public – television and radio, various digital platforms, blogs and sites. (Renz, 2016; Babiker et al., 2019). The lack of censorship in liberal Western democracies creates insecurity and vulnerability of the society to the onslaught of disinformation and false propaganda (Bradshaw & Howard, 2018).

Cyber attacks are one of the new hybrid threats associated with information technology. The aggressor has the potential to carry out vicious attacks in cyberspace, often leaving an undetected both the source of cybercrime and the perpetrator or group of criminals (Andress & Winterfeld, 2011). As our research has shown, a number of cyber attacks carried out under the leadership of the Kremlin have been successful and have caused significant damage to individual states. In particular, the largest cyber attack carried out by Russia led to the capture and annexation of Ukrainian territories – Crimea and the city of Sevastopol. In addition, the number of cyber-attacks on Western democratic states aiming to seize secret information or spread disinformation has increased in recent years (Hoffman, 2011).
Table 1 shows a number of successful hybrid wars waged by the Russian Federation during 1988-2014. These military conflicts remain frozen or continue to vary in intensity. They have had devastating consequences of unprecedented human, territorial and economic losses for states, which underwent hybrid expansion, and demonstrate the vulnerability of Western democracies to the Kremlin's forceful hybrid policies.

The West's unpreparedness for cyber threats by Russia, discrediting government agencies also has disastrous consequences. With the active support of parties loyal to the Kremlin's policies the Russian Federation is exacerbating a number of problems and challenges posed by Brexit, the financial and migration crises in Europe and is undermining European unity (Lavenex, 2016).
Thus, neo-institutionalism, which is primarily the product of the political system of states with undemocratic values, poses serious challenges and threats to developed liberal democracies. Analyzing the hybrid threats and their consequences, it should be noted that hybrid aggression not only led to the escalation of conflicts on the European continent, but also resulted in transformation of political institutions in many countries, shaking the decades-old democratic achievements of society.

5 Conclusions

Hybrid threats have gained dangerous scope in today's world. Due to information technologies the tools with which they are embodied have become sophisticated and comprehensive. As our research has shown, the greatest threat to the stability and democracy of political institutions within the post-Soviet space and in the Western countries is the Russian Federation. The Kremlin is using all possible means of hybrid expansion to discredit and undermine the democratic values of Western society. In particular, these include propaganda, which allows to strongly manipulate public opinion and to destabilize civil society, encouraging citizens to doubt the veracity or impartiality of the news they receive from state information sources. A significant threat is posed by political cyber attacks used by Russian intelligence services to pressure or falsify elections in a number of Western countries, as well as by financial and propagandist support for political parties loyal to the Kremlin.

The largest hybrid aggressions that have shaken the political institutions of states include a series of hybrid wars that have taken place over the last 30 years within the post-Soviet space and have been characterized by the use of irregular armed groups, local criminal groups, and regular Russian armed forces.

Summing up the research, it should be noted that hybrid threats and direct expansion are among the most important challenges of today, which destabilize the political institutions of democratic countries. Overcoming hybrid threats requires the unity and coordination of Western countries. The European Commission has taken a number of successful steps in this direction.

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Primary Paper Section: A

Secondary Paper Section: AG

DISTANCE LEARNING AND INTERACTIVE METHODS OF TEACHING ENGLISH AS A FOREIGN LANGUAGE

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Abstract: World globalization processes and scientific and technological progress, the development of means of communication have led to changes in the organization of the educational process, opened space for innovation, in particular, in the methodology of teaching a foreign language. One of the manifestations of modern trends in the methodology of the educational process is the use of interactive teaching methods. The purpose of scientific research is to study the use of interactive teaching methods in distance learning English and identify methods and forms of control that need refinement. Research methods: questionnaires; comparative analysis; systematization; generalization. Results. According to the results of an express survey, using interactive methods in distance learning English classes.

Keywords: distance learning, interactivity, interactive methods, use of video materials, educational process, participants of educational process.
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1 Intoduction

The organization and methodology of education are constantly changing, improving and optimizing for the specific needs of society and the actual social, economic, historical conditions. Necessary and timely changes are an important factor in ensuring the productivity of the educational process at all levels. For each level and form of organization of the educational process requires its own or modification of the general methodological apparatus, which allows to intensify the strengths and eliminate shortcomings in each case objectively. The purpose of the study is to improve the methodological apparatus of distance learning using interactive methods.

Distance learning is now considered not only as an auxiliary element of the educational process or as one of the options for its implementation, but also as the only possible way to organize continuity of education. The Pandemic of Covid-19 (Azubuike et al., 2020; Abuhammad, 2020) was only a catalyst for rethinking the role of distance learning. The general trend of increasing attention to the distance form of education is observed for a long time in the context of globalization and information technology, Internet, general information and technical competence and availability of technical support of means of information exchange.

The purpose of scientific investigation: study of the influence of interactive teaching methods on the motivation of students during the study of English using distance learning technologies, the definition of interactive methods to encourage interest in learning a foreign language.

Achieving the goal of the study is possible through a number of research tasks. Among the research tasks of this scientific intelligence are the following:

1. Conduct theoretical exploration of the concepts of "distance learning" and "interactivity", summarize the acquired theoretical experience and outline the scope of further research.
2. Analyze interactive teaching methods for possible implementation in distance learning.
3. Conduct a survey among distance learning students on the fact of using interactive methods and their diversity in foreign language classes.
4. To systematize and analyze the information obtained during the questionnaire in order to determine the representation / non-representation of certain interactive methods of teaching English.
5. To offer ways and means of implementation of perspective interactive methods of low representation at lessons on a foreign (English) language.

2 Literature Review

The interest of the scientific community in the issue of distance learning is especially noticeable in recent decades, due to the rapid development of information technology. There is currently no single common definition of "distance learning", there are different approaches to its interpretation.

Moore (Moore, 1980) defines distance learning as independent learning and teaching. According to the scientist, "distance learning is an educational system in which the student is autonomous and remote from the teacher in time and space, so communication takes place using printed, electronic or other means of transmitting information." Wedemeyer (Wedemeyer, 1981) interprets the concept of "distance learning" as distance learning activities using telecommunications. Keegan (Keegan, 1993) believes that distance learning is a form of learning in which there is no interpersonal communication between teacher and student. Peters (Peters, 2010) defines "distance learning" as one that has such parameters as: non-linearity, novelty, flexibility, associativity, distributivity, decentralization, openness of educational programs.

Interactivity is a transdisciplinary concept of discussion. Authors in (Sundar et al., 2003) consider interactivity to be a necessary element in order to be able to use media technologies as such and products created by such technologies. Ceresia (2016) explores the possibilities of an interactive learning environment. Walther (2005) interprets interactivity as a phenomenon, the components of which are the ability to exchange information, rapid response to information received, the presence of control. Interactive teaching methods are those methods that are characterized by these characteristics.

Fink (2002) considers the method of working in small groups as an effective way to solve complex problems, because the peculiarity of this form of interactive interaction is the creation of teams that increase personal responsibility, motivate to greater efforts in the face of competition.

Dalton-Puffer (2013) argues that the use of debate as a teaching strategy encourages students to "think about the use of academic language", i.e. activates vocabulary and language structure.

Gredler (2004) argues that role-playing and simulation became an important methodological element in the 1950s and have been an essential element of teaching ever since.

Authors in their work (Murphy & Sharma, 2010) argue that interactive lectures are nor undoubtedly more effective than traditional ones; however, it is a promising area of development and methodological improvement. Tuma (2021) explores interactive lectures on the application of the latest technologies.

From the point of view of teaching foreign languages, an example of conducting extracurricular activities can be the organization of a discussion club - Speaking Club, the effectiveness of this method of teaching has been repeatedly confirmed by various studies.

Nguyen (2019) emphasizes the high efficiency of extracurricular learning. Hauser (2008) comprehensively studied the ways of organizing the Speaking Club and described this activity as an effective method of developing language and interaction skills. Authors in (Kasper & Kim, 2015) emphasized the need to teach English not only in the classroom but also outside it, emphasizing the effectiveness of the Speaking Club.

Malu and Smedley (2016) argue that the Speaking Club allows students to learn about the cultural features of the country and ensure better integration into student society. Sorgen (2015) studied the impact of the Speaking Club on the integration of refugees into society and found out its effectiveness both for language and for the development of social skills. In their work, Alvermann (1999), Bjorklund (1985) emphasized the importance of student interaction in preparation for the Speaking Club.

Rao (2007) found that students who studied brainstorming techniques and used them regularly for a period of twelve months showed noticeable results that were higher when writing assignments. In teaching English, brainstorming is often used when learning to write. Authors in (Tsai et al., 2020) show an increase in teacher-student interaction using this interactive method. Free association techniques and association trees are often included as elements of preparation for writing or warm-up, as Richards (1990) argues.

Gomes and others (2017) emphasize the possibility of widespread use of the "decision tree" in education in general due to its speed, clarity and ease of implementation. Hattie and Timperley (2007) argue that the decision tree method implements feedback: correcting errors immediately leads to faster skills acquisition.

The text projects that encourage students to use English texts: a series of texts for more intensive study of a topic or a single text, such as a play for reading, discussion, dramatization, and rehearsal; distance learning projects that include letters, audiocassettes, photographs, etc. as exchanges between students in different countries.

Boyce and Hineline (2002) define mutual learning as an interactive method that emerged from the empirical history of behavioral sciences and emphasize its prospects in terms of modern teaching conditions.

Golich (2000) notes that the case method is student-centered and based on interaction between students and faculty and students in a group, i.e. is purely interactive, and the originality and effectiveness of the method is that students discover knowledge under the guidance of a teacher during training therefore, "how to learn".

3 Methods

Realization of the purpose of this scientific intelligence is possible with the use of such methods as:

- analysis of scientific experience of interactive methods of teaching English;
- synthesis of information and logical processing of the received data;
- questionnaires to confirm / refute the use of interactive methods in practice;
- comparative analysis of the data obtained as a result of the questionnaire, systematization and generalization of the information obtained as a result of the questionnaire;
- comparative analysis of the results of theoretical and practical explorations;
- conducting project work (distance learning in English using interactive methods).

To identify the true state of affairs in terms of interactivity of methodological support of English as a foreign language, a two-stage questionnaire was conducted, in which 50 first-year students majoring in "Pedagogics" of the M.P. Dragomanov National Pedagogical University.

Students participating in the study speak different levels of language and at the time of the study were studying remotely in connection with quarantine measures. All interested first-year students of the specialty "Pedagogics" who study the discipline "English" were invited to take part in the survey.

The first stage of the questionnaire involves filling out an express form to identify the presence / absence of the category "interactivity" as a characteristic of conducting classes in English as a foreign language.

The express form of the questionnaire indicated in Table 1 is a practical implementation of the interactive method of fixing the conclusions of the "decision tree" and is based on the principles of interactivity of the educational process derived during the study.
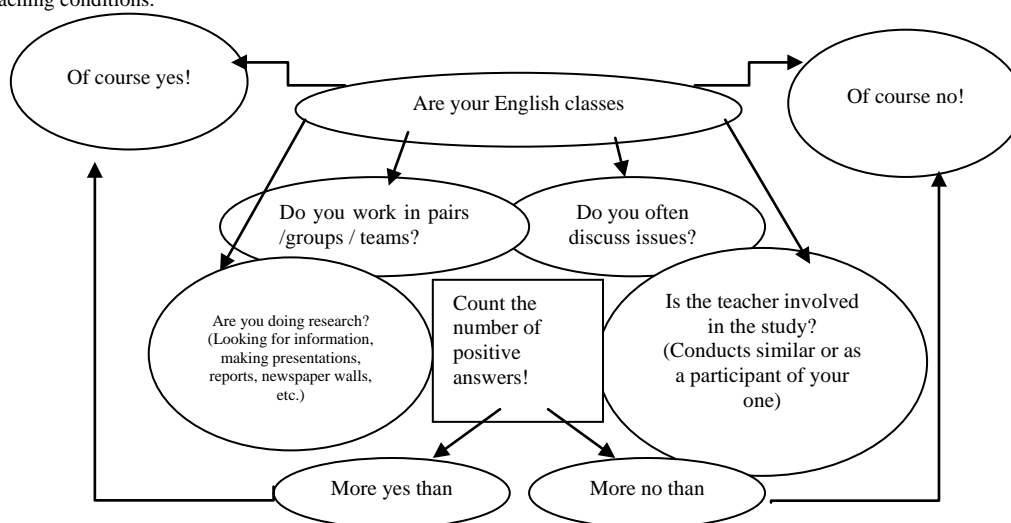
Figure 1. Express form of research of interactivity of employment

The next stage of the survey was to determine the priority areas for the implementation of interactivity in the actual form of distance learning English as a foreign language.

The survey was implemented in the form of a questionnaire, the form of which is given in Table 1. Types of work proposed by students from their experience. The questionnaire will reflect the variety of forms of control used in English classes, as well as the most common ways to conduct them.

Table 1. Survey form for interactive tasks

Type of control forms	Execution frequency from 1 to 5 (in ascending order of frequency)				
1. Conducting project work (presentations, other)	1	2	3	4	5
2. Writing reports / abstracts	1	2	3	4	5
3. Carrying out scientific research (scientific articles, other)	1	2	3	4	5
4. Video recording video editing	1	2	3	4	5
5. Other (specify that):	1	2	3	4	5

4 Results

Given the results obtained during the rapid survey, we can conclude that with varying degrees of interactivity in English classes met 100% (50) of students in the survey group; manifestations of interactivity in ascending order according to the survey are the following: group work (68%), performance of research work (86%), equal participation of teacher and student

(88%), discussion (96%). In the real picture of the implementation of the interactive the most important criterion is the presence of discussions, the smallest role is played by group work. We can assume that the implementation of group projects will be able to "increase" the level of interactivity of distance learning English. The results of the rapid survey are shown in Table 2:

Table 2. The results of an express survey of the interactivity of distance learning English

1. Claim the interactivity of English classes	50/50	100%
2. Claim non-interactivity of classes	0/50	0%
3. Claim to perform research work	43/50	86%
4. Claim that they do not perform research work	7/50	14%
5. Claim to work in pairs / groups / teams	34/50	68%
6. Claim that they do not work in pairs / groups / teams	16/50	32%
7. Argue that discussions are often used	48/50	96%
8. Argue that they do not use discussion	2/50	4%
9. It is claimed that the teacher also participates in research work (conducts his own or helps)	44/50	88%
10. Claim that the teacher does not participate in research work (does not conduct his own or does not help)	6/50	12%

The frequency of performing various types of work in distance learning English classes is shown as a percentage in Figure 2. Most often, students perform project work, at least - video recording or video editing.
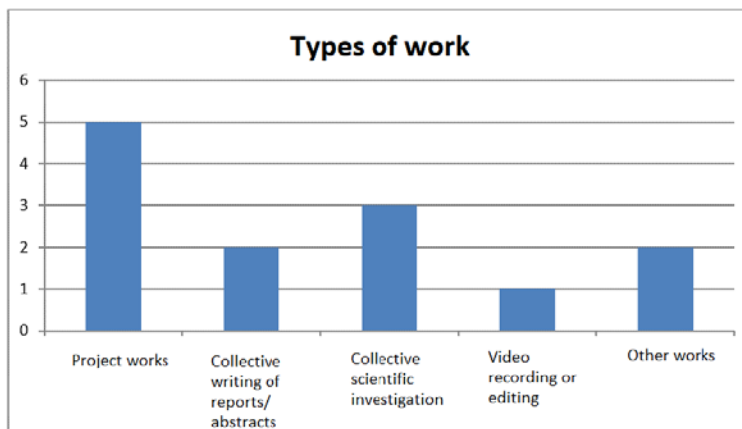
Figure 2. Frequency of different types of work in distance learning English

The analysis of the results of the express survey of the interactivity of remote English lessons and the survey on the frequency of use of various forms of control gives grounds to assert the need for methodological improvement of group work and the use of video materials.

As a result, students were invited to take part in an interactive project to learn English as a foreign language. Features of the project are listed in Table 3:

Table 3. Interactive project for the use of video materials in distance learning English classes

PROJECT:	LET'S LEARN ENGLISH TOGETHER!
Methods:	project method, brainstorming method
Materials:	videos created independently or found on the Internet
Execution time:	1 week

Topic:	The role of English in my life: before, today and tomorrow. The students themselves during the brainstorming suggested an indicative list of topics. Relative thematic freedom is provided to enhance creativity and freedom of expression.
Presentation method:	group in the Trello learning management system: 10 subgroups of 5 people united by one video idea
Video requirements:	duration from 3 to 5 minutes, use of English as the main, grammatical and phonetic correctness,
Assessment:	Depends on the fulfillment of video requirements and the assessment of opponents (students write reviews of videos of other groups.

Instructions for execution:	1) register or renew an account in the Trello learning management system, accept an invitation to participate in the project "Let's learn English together" 2) get acquainted with the requirements of the project and choose a topic for future video 3) think together with other students in your group the plot of the video; 4) shoot / compose video; 5) post the video in the appropriate post on Trello; 6) comment on videos of other groups.

The thematic direction of work under the terms of the project is determined by the interactive method of "brainstorming". Students suggested their own variations on a common theme, which were put forward as a common task.

The topics selected by the students during the "brainstorming" are given in Table 4:

Table 4. Topics for project activities based on video materials

	Topics for project activities based on video materials
1.	Everyday situations in English: my daily routine
2.	Speeches and constructions of everyday use
3.	Curiosities of English phonetics
4.	One day from my student life
5.	The situation from my future
6.	If I worked abroad
7.	Comic situations of interlingua misunderstanding
8.	If I didn't understand English
8.	The role of English in my life
10.	If I met an English-speaking foreigner
11.	If I was born British
12.	If I lived in America
13.	Interesting about the English language
14.	The role of the English language in the world
15.	English-speaking world: countries and nations
16.	Difficulties of translation from English into Ukrainian
17.	Difficulties of translation from Ukrainian into English
18.	Advantages and disadvantages of my profession
19.	Prospects for the development of my specialty
20.	How to learn English?

LET'S LEARN ENGLISH TOGETHER! Distance Learning Project was conducted by students majoring in "Pedagogics", based on the learning management system "Trello". Students-participants of the project showed interest in the interactive lesson and presented videos on all requirements. At the end of the project, feedback was collected, according to which the interactive project "LET'S LEARN ENGLISH TOGETHER!" met with unequivocal approval of the audience.

5 Discussion

Interactive teaching methods are used in the direct presence of the teacher, which contradicts the distance learning. However, the possibility of optimizing these interactive methods is not excluded.

Bajrami and Ismaili (2016), Lin and Wang (2018), Hoa and Tai (2020), Tarchi, Zaccoletti and Mason (2021), Yang (2021), Fandiño and Velandia (2020), Thompson and von Gillern (2020), Rus (2020) note the use of videos in a creative way. Mann, Crichton and Edmett (2020) investigated the use of video clubs to improve teacher skills. Charalambos, Philippou and Olympiou (2018) emphasized the productive interaction of all participants in the learning process using the method of video clubs.

Thus, the use of video materials in distance learning English is a promising interactive method of teaching, as confirmed by many

scholars. The use of video materials taking into account the principles of interactivity has a high creative potential and is guaranteed to increase the motivation of students and the degree of their interest in the learning process.

According to the results of the study, work in small groups with the use of video materials requires the greatest methodological intervention in connection with the subjective opinion of students, identified during the express survey, and during the survey on forms of control.

6 Conclusions

In the framework of this study, a theoretical exploration of the concepts of "distance learning" and "interactivity" was conducted. Interactive forms and methods of teaching are identified, such as work in small groups, debates, educational games, interactive reading, heuristic conversations, extracurricular activities, methods of discussion and problem solving, the latest interactive methods (project method, case method, mutual learning). These methods were described and analyzed for possible implementation in distance learning.

The scientific novelty of the study is to identify the main manifestations of interactivity in distance learning English (group work, research work, equal participation of teacher and student, discussion). The influence of interactive on students' interest in learning English with the help of distance learning technologies, encouraging interest in learning a foreign language is determined.

The theoretical significance of the study is to create a methodological version of the implementation of interactive methods in the learning process. The development of interactive classes in accordance with the calendar-thematic plan is an urgent scientific need.

Of practical importance are the methodological methods of conducting express surveys (using the method of "decision tree"), the use of interactive methods in distance learning English (project method, "brainstorming"), the actualization of basic and professional lexical material with the help of videos.

These methodological developments can be used in classes in English as a foreign language and in writing guidelines for teaching English.

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FORMATION OF TEACHERS' READINESS FOR CHILDREN INCLUSIVE EDUCATION BY DIGITAL TECHNOLOGIES MEANS

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Abstract: The purpose of the article is to form a conceptual model of teacher readiness for inclusive education of children by means of digital technologies. The methodology is based on a quantitative-qualitative methodology and in-depth qualitative case study approach. The in-depth qualitative case study approach made it possible to form a model of the teacher's readiness for inclusive education of children by means of digital technologies. The results demonstrate the average level of efficiency in the practice of using digital technologies and organizing an inclusive environment with the help of tablets, laptops and other equipment. The lack of awareness of the teacher in possible technical problems and technical support and additional difficulties of children with disabilities exacerbates the problems of inclusion.

Key words: readiness of teachers for inclusion, digital pedagogy of inclusion, inclusive digital environment, model of digital inclusion.

1 Introduction

Beliefs and perceptions of the computers and technology use in inclusive education determine the readiness of teachers to inclusive education of children through digital technology. Some factors such as attitude, perception of benefits and ease of use, teacher competence in the use of ICT determine the success and effectiveness of education of children with special needs (Kumar et al., 2008). E-learning technology can also contribute to the level of inclusion of children in the educational environment. Given the goal of governments to include children with special needs in general education (Malinen, 2013; Kiswarday & Štemberger, 2016); the study of teachers' readiness for inclusive education is particularly relevant. The previous experience of the teacher determines the level of his own effectiveness in practical activities with children with disabilities, and the lack of experience leads to a more negative perception of inclusion. The use of technology can simplify the process of organizing inclusive education and increase the level of self-effectiveness of teachers. ICTs are seen as a tool to reduce discrimination, while transforming approaches, strategies and learning structures (Benigno et al., 2007). Understanding the potential of ICT by educators can help improve the inclusion of children in the educational environment (Chupakhina S., 2020). Therefore, teachers need to develop skills and abilities to use technology, perceive inclusion as learning from each other and the process of systematic search to remove barriers to inclusion (Kiswarday & Štemberger, 2016). For example, 75% of Italian teachers understand the potential of technology in the educational process and promote inclusion (Benigno et al., 2007). The integration paradigm of inclusion can lead to teachers' unwillingness to respond to the challenges that will arise in the process of inclusion. Therefore, the level of quality and support for inclusion may vary depending on the perception and willingness of teachers.

2 Literature review

The scientific literature proposes an "interdisciplinary approach combining digital education with disability theory to investigate disabled children's digital use practices for formal learning" (Cranmer, 2020). The theory of social practice and the practice of using technology is the basis for studying the perception of technology by teachers and children in the process of inclusion. (Cranmer, 2020) argues that "digital accessibility practices were potentially stigmatizing and carried an extra task load to overcome barriers that occurred when teachers had not developed inclusive digital pedagogy". At the same time, few empirical studies study the process of forming the readiness of teachers for inclusive education of children through digital technology.

The process of inclusion and socialization determines access to equal opportunities for children with special needs. Digital technology is an important element of this process. Research confirms the transformation of children's lives through digital technologies (computers, laptops and mobile devices) (Bond, 2014). These changes have affected education and training, social activities, friendships, and the development of the digital skills and competencies needed to use the Internet effectively and safely (Ferrari, 2012). Few studies have examined the integration of technology into children's lives and the work of educators (Passey, 2013; Söderström, 2009), in particular studies directly related to children with disabilities. In the literature, attention is paid to understanding the actual state of the inclusion process (Selwyn, 2011). This is due in part to the inability to conduct research with children with special needs (McLaughlin et al., 2016). At the same time, the literature studies the practice of using technology in a conventional educational environment (Watson, 2012).

These articles use a social inclusion model that considers the disability of children as child-centered with disabilities and provides for justice and human rights, views "disability" as based on the "collective experience of disability" (Oliver, 2004). The concept of inclusive education is seen as giving children the opportunity to receive an equivalent education (Corbett & Slee, 2000).

Digital technologies in inclusive education are recognized as effective in educating children with disabilities. For example, a study argues that they are effective in learning as a means of creating conditions to ensure equal access and opportunities to the learning system. The advent of tablets and mobile devices has led to such conclusions in the scientific literature, and the reduction in their cost gives extended access to such technologies to families with different income levels. In Europe, the United States and Australia, there are many practices of providing individual access to computers or laptops to children with special needs (Keane & Keane, 2018). Government initiatives within the framework of inclusion policy ensure the purchase of technology. For example, in 2011-2014, the European Commission funded a project to develop the SENnet network within schools to support children with disabilities and their use of technology. The 2014 SENnet's report identified the potential benefits of tablets for children with disabilities: speed of work; immediate feedback thanks to touch screens; individual use (which became possible due to the selection and organization of applications); opportunities for more personalized learning; availability and greater versatility compared to assistive technologies; the possibility of greater differentiation in the presentation and access to knowledge of different students; built-in accessibility features such as voice, voice control, zoom etc.

Research has noted the potential of tablet computers to include children with disabilities in the educational environment (Dell et al., 2012; Schaffhauser, 2013) The greatest effect is observed when using the same type of technology (European Schoolnet, 2014). That is why tablets are the most popular among educators, who work with children with disabilities. (Pellerin, 2012). However, few studies focus on teachers' readiness for digital inclusion and working with children in the digital environment. (Passey, 2013; European Schoolnet, 2014; Robinson, 2014). In the literature, most attention is paid to the issues of specific practices of inclusion and the consequences of inclusion for the educational environment and children, rather than the practice of using technology by teachers and their readiness for the digital learning environment.

Studies have studied the increase in literacy (Hayhoe, 2012); development of social, communication and organizational skills (Sultan & Hayhoe, 2013); learning process and independence. (O'malley et al., 2013; Lidström & Hemmingsson, 2014) conducted a bibliographic analysis of physical disabilities (i.e., impaired motility, speech, vision, hearing) to study the possibility of increasing the inclusion of children in schools using digital technologies. The analysis shows a narrow range of technologies in the educational process by children with disabilities, the practice of application is limited. Children themselves note limitations, while the desire to use technology is higher. That is why it is important to assess the perception of teachers' readiness for digital inclusion.

The analysis of the literature proves the potential to improve the level of readiness of teachers to use technology as a means of communication, writing and the development of reading skills for children. At the same time, few empirical studies prove the expansion of the effects of inclusion due to the digitalization of the educational environment. There is also the question of promoting equal opportunities for children in education, participation in social interaction.

Thus, empirical research on the readiness and competence of educators on the potential of digital inclusion remains limited. This indicates the urgent need for further research in this area.

3 Methodology

This article is based on a quantitative-qualitative methodology and in-depth qualitative case study approach (Cranmer, 2020) in order to understand the opinions and perceptions of teachers of readiness for the digital environment. This approach also provided for the determination of the level of digital skills of teachers, the need for the development of such skills, the training of teachers and their availability of programs for preparation for digital inclusion. In-depth qualitative case study approach (Cranmer, 2020) made it possible to form a model of teacher readiness for inclusive education of children by means of digital technologies (Figure 1).

Figure 1. Model of teacher readiness for inclusive education of children by means of digital technologies
Source: developed by the author.

Interviews were conducted with 10 teachers who work with children with visual and hearing impairments, teaching assistants. Teachers who work with children aged 10-15 in general education institutions were interviewed through electronic means of communication during September-November 2020. The survey (Cranmer, 2020) was used to ask teachers questions in order to answer such important components of readiness as experience of inclusion, availability of technologies, level of digital skills, competence, programs of digital skills development, quality of digital environment and level of readiness. Examples of questions: 1. What digital technologies do you use? 2. What equipment is available at the school? 3. Are there teacher-training programs for digital learning? 4. How do you assess the level of your own digital competence? 5. How do you assess the quality of the digital environment? 6. How do you assess the level of impact of technology on the development of children with visual and hearing impairments? 7. How do you assess the level of your own readiness for further development of digital inclusion? 8. What difficulties do you face when integrating technologies? During the experiment, teachers made observations on the use of technology.

To compensate for the diversity, different data from teachers were combined and a pragmatic approach (Duca, 2017) was used to analyze the results with a systematic study. This approach is used to increase the reliability of the results.

4 Results

The practice of using digital technologies shows the average level of effect and organization of an inclusive environment with the help of tablets, laptops and other equipment. Practice

indicates differences in the use of technology by children with disabilities and healthy children. Digital accessibility provides a greater level of integration for children and enhances communication through the possibility of digital interaction between different children.

For example, the observation revealed interest in the use of technology by children with disabilities in performing tasks in the classroom, although there were examples of reduced involvement and motivation in learning due to difficulties. At the same time, children developed a creative approach to the use of general hardware capabilities in different ways, and in some cases helped teachers to use the functionality of the devices. This is due to the lack of fears of making mistakes when used by children as opposed to teachers. For example, children use images more according to their preferences, or installed programs for their own purposes. At the same time, built-in accessibility settings and options improve the learning process, such as language output.

The results showed a wide range of benefits of the practice of using digital devices aimed at improving learning in general or providing children with disabilities with access to educational programs. Technology is a tool for improving interaction and communication with children, which contributes to a positive perception of technology by teachers. In some situations, educators have provided support to children with disabilities through certain ways of using technology due to teachers' lack of awareness of how to provide technology-free support. This led to children completing additional tasks to access the curriculum or need teacher assistants to overcome difficulties. For example, in one class (school A) during the observation it turned out that the teacher forgot that the student (14 years old) did not see the

electronic board; therefore, the child was automatically excluded from the learning process. The teacher's assistant provided assistance with a tablet, which provided an increase in the image on the board. However, providing access to learning materials using a tablet negatively affected the student's emotional state, confidence and level of interest in learning. Otherwise, the board did not synchronize with the tablet, which meant the student's dependence on the assistant and the student's need for additional help. This meant the teacher's lack of awareness of possible technical problems and technical support and additional difficulties for children with disabilities, which only exacerbated their inclusion problems. However, providing access to learning materials using a tablet negatively affected the student's emotional state, confidence and level of interest in learning. Otherwise, the board did not synchronize with the tablet, which meant the student's dependence on the assistant and the student's need for additional help. This meant the teacher's lack of awareness of possible technical problems and technical support and additional difficulties for children with disabilities, which only exacerbated their inclusion problems. However, providing access to learning materials using a tablet negatively affected the student's emotional state, confidence and level of interest in learning. Otherwise, the board did not synchronize with the tablet, which meant the student's dependence on the assistant and the student's need for additional help. This meant the teacher's lack of awareness of possible technical problems and technical support and additional difficulties for children with disabilities, which only exacerbated their inclusion problems.

The study proves the high level of interest and enthusiasm of children in the practice of using digital technologies - both in the learning process and accessibility - in terms of technology attributes, complemented by their own skills. Technical support of the school was insufficient, but an effective way to increase the level of readiness of both children and teachers. From the point of view of limitations, teachers noted the insufficient level of technology reliability and random gaps in their skills. There were also examples where teachers did not meet children's expectations due to the continued use of traditional teaching methods and practices, which creates an additional workload.

This study identified the complexity and difficulties in the use of digital technologies by children with disabilities in schools in the context of inclusive education policy. The study shows the diversity of digital practices - digital learning and discrete digital accessibility practices - and the prospects for children with disabilities and educators. Children with disabilities noted the benefits of using tablets without considering individual cases of lack of technical support. Some examples of digital accessibility practices could be avoided through the development of more inclusive pedagogies. In some situations, technology has placed an additional burden on both teachers and assistants and children with disabilities. This affected the level of readiness for further use. Despite inclusive education policies, Children with disabilities often continue to be required to adapt and study in general education schools, rather than schools that adapt to them through the development of large-scale inclusive pedagogy. Moreover, technical problems can have negative consequences for the inclusion of children with disabilities. This study also suggests that schools and especially teachers must play a crucial role in the transformation to improve the learning situation of children with disabilities.

In some cases, instead of including children, technology causes them to be excluded due to insufficient technical support and problems that the teacher is not aware of due to lack of skills in particular. This confirms the need to develop programs to develop teachers' readiness for digital inclusion. This will ensure the overcoming of technical problems and the development of inclusive digital pedagogy. Among the main problems that need to be addressed are the insufficient development of digital pedagogy in schools with the simultaneous integration of inclusive practices, which increases the pressure on teachers; limited use of technology by teachers; failures in the implementation of inclusive education policy. In the future, policies and practices need to be integrated to develop effective inclusive digital pedagogy. In the short term, teachers need to set aside time to work more closely with assistants when planning the learning process, rather than relying on assistants to develop methods to circumvent technical problems. Schools need to improve technical support and provide children with additional opportunities to improve their skills. In the end, schools should enable teachers to raise awareness, knowledge and skills for the development of inclusive digital pedagogy. Assistants can play a crucial role in conducting research and development in schools to provide teachers with instructions that effectively address the opportunities/challenges they face. Digital technology cannot be a panacea for inclusion.

In the course of the study, teachers note a number of advantages that have been identified in the use of technology, among the main:

1) Ability to transfer all materials in electronic form and simplify routine work, which frees up time for more important processes: communication with children, conveying the essence of the material.
2) Increasing the level of children's interest in the learning process, visualization of material for children with disabilities provides a greater effect and a greater level of perception and assimilation.
3) The learning process becomes easier in the organization.
4) Teachers note a higher level of children's independence and interest in individual study of the material.
5) In the process of use, analytical skills of using technologies and additional capabilities of devices in the learning environment are formed, in contrast to previous experience.
6) Previous experience, in particular gained in the process of training programs, contributes to the formation of digital competencies, and therefore the level of perception is more positive, higher level of readiness.
7) Teachers consider training programs as an opportunity to develop skills provided there is sufficient time for learning.

Among the main barriers to teacher readiness for an inclusive digital environment, teachers note:

8) Lack of technology practice in training programs, which causes difficulties and time spent on routine operations during training.
9) Lack of specific examples of technical means and devices in training programs, non-universality of technologies, which causes difficulties in the case of fundamentally different equipment in the workplace.
10) The period of development of competence in the use of technology takes from 6 to 12 months, which affects the socialization of children and negatively affects the quality of the digital educational environment and inclusion.
11) High level of stress and tension in the formation and gaining experience in the use of technology, which affects the level of readiness.
12) As a result, we come to the conclusion about the importance of psychological attitudes, which are an important component of the proposed conceptual model of teacher readiness for inclusive education of children by means of digital technologies (Figure 2) Psychological attitudes (rejection, unpreparedness) are formed due to ignorance of the benefits and the process of organizing digital learning: what will be the new learning process? Lack of a sufficient level of digital skills and fear of not coping with the new learning environment is a major barrier to teacher readiness.
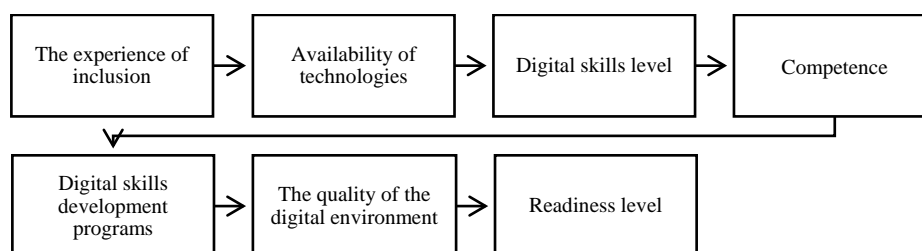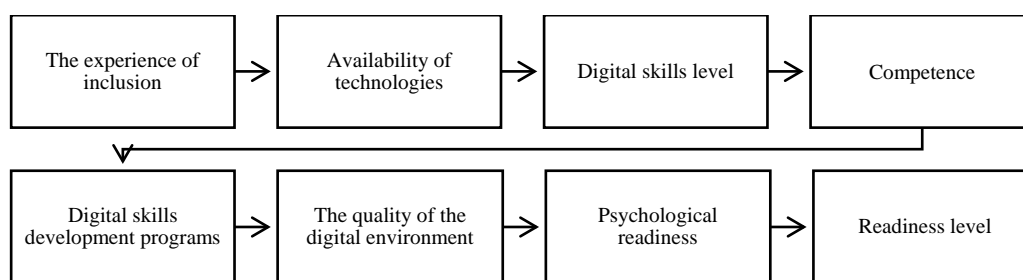
Figure 2. Model of teacher readiness for inclusive education of children by means of digital technologies
Source: developed by the author

In addition, educators do not see technology as an opportunity, but as an additional workload and time spent learning. In this context, it is important to develop gradually an understanding of the importance of learning as a potential for simplifying the learning process and facilitating work with children with disabilities. Such an understanding can be formed only in the course of experience and digital communication, which forms the skills in the best way and the teacher's interest in the capabilities of the devices.

5 Discussion

This study confirms the conceptual model of teacher readiness for inclusive education of children by means of digital technologies. This model combines the components of readiness with the ability of teachers to use technology effectively and anticipates the need to develop digital skills to create a favorable inclusive digital educational environment. Among the main limiting factors of readiness is the age of the teacher, who directly determines the speed of understanding the potential of technology, the effectiveness of the use of technology and interaction with children with special needs. During the observation of the educational process, it was found that the teacher at an older age learns technology less slowly, and therefore the process of communication and overcoming the shortcomings of children becomes less effective, less time is left for interaction with children. However, this barrier tends to be overcome over time. When a teacher identifies and overcomes his own resistance to technology due to insufficient competence in the course of learning, the effect of using technology and their perception as opportunities increases. Overcoming resistance to technology is through understanding the irreversibility of the digitization process and through understanding the benefits of technology, the development of digital skills and the ability to use devices. Thus, the development of digital competencies leads to a positive perception of technology, and subsequently to the full acceptance and increase in the level of readiness to use new devices, regardless of the age of the teacher. Therefore, the psychological component of the teacher's readiness model for inclusive education of children through digital technologies is key in terms of transforming teachers' perception of software from negative to positive through the experience of use. In this context, training programs should include an explanation of possible difficulties, which requires further in-depth research into the psychological barriers of teachers.

This study correlates with the findings (Duca, 2017) on the influence of age, years of study, training and the ability of teachers to use technology on their readiness. "Findings show that tablets help to promote student participation, the development of 21st century skills and personalized learning". Teachers discuss their own professional development through technology in the process of communication with colleagues, schooling and resource sharing. Supporting the process of digital inclusion requires the help of a pedagogical psychologist to develop innovative pedagogical technological teaching methods. In addition, the pedagogical psychologist provides an understanding of the effect of technology in learning: the extent to which use has a positive effect on inclusion, without causing dependence on digital technology in children.

Studies by (Brecko et al., 2014; Brodin, 2010; Brodin & Lindstrand, 2008) show the frustration of parents of children with disabilities in the low level of technology use in schools, lack of modern software and hardware, teachers' knowledge of technology and its use in learning, slow development of use in in general. (Brecko et al., 2014) proves the key role of teachers in the development of digital pedagogy and identifies the need for effective educational tools along with the willingness of teachers to change their attitudes towards technology. Teachers are often not provided with digital skills training and upgrade programs. Therefore, the competence and readiness of the teacher to resource technologies is crucial, and its absence determines the readiness and perception of the digital environment.

(Bjekić et al., 2014) proved the need for in-service training and teacher development in order to improve the use of digital technologies for teaching. Barriers also highlight the cost of equipment combined with security issues such as lost or stolen tablets (Johnson, 2013). Finally, it is important to pay sufficient attention to children with disabilities who are not interested in digital technology (Robinson, 2014), provided they want to benefit from the use of technology.

6 Conclusion

This study allows us to draw a number of important conclusions about the formation of the teacher's readiness for inclusive education of children through digital technology. The practice of using digital technologies shows the average level of effect and organization of an inclusive environment with the help of tablets, laptops and other equipment. Technology is a tool for improving interaction and communication with children, which contributes to a positive perception of technology by teachers. However, the teacher's lack of awareness of possible technical problems and technical support and additional difficulties for children with disabilities exacerbates inclusion problems. Technical support of the school was insufficient, but an effective way to increase the level of readiness of both children and teachers. In terms of limitations, teachers noted the lack of reliability of technology and random gaps in their own skills. This study also identified the complexity and difficulties in the use of digital technologies by children with disabilities in schools in the context of inclusive education policy. Among the main problems that need to be addressed are the insufficient development of digital pedagogy in schools with the simultaneous integration of inclusive practices, which increases the pressure on teachers; limited use of technology by teachers; failures in the implementation of inclusive education policy. We come to the conclusion about the importance of psychological attitudes, which are an important component of the proposed conceptual model of teacher readiness for inclusive education of children by means of digital technologies. Psychological attitudes (perception, unpreparedness) are formed due to ignorance of the benefits and the process of organizing digital learning: what will be the new learning process? Lack of a sufficient level of digital skills and fear of not coping with the new learning environment is a major barrier to teacher readiness.

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INVOLVEMENT OF LANGUAGE COMPETENCIES OF BILINGUAL STUDENTS DURING THE STUDY OF FOREIGN LANGUAGES IN HIGHER EDUCATION INSTITUTIONS

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Abstract: The article considers ways to intensify the language competencies of bilingual students during the simultaneous study of two or more foreign languages. The experiment and questionnaire were conducted to determine the effectiveness of implementing parallel learning of two foreign languages to bilingual students. The research is based on an integrated approach. The article uses several methods of synthesis and analysis in performing research. The evaluation of the effectiveness of the experiment was carried out with the involvement of a questionnaire, which was conducted in stages. The study of foreign languages by bilinguals in a complex is promising, which contributes to the actualization of language competencies and the development of socio-cultural and educational activities of students in universities.

Keywords: bilingualism, motivation, language competencies, media education, mass media, metalinguistic possibilities, speech skills.
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1 Intoduction

The phenomenon of bilingualism is becoming more widespread in modern European countries (Cummins, 2011; Lehtonen et al., 2018). The source of bilingualism is usually the ethnic heterogeneity of society itself, such as the existence of several ethnic groups in one state using different languages (Harding-Esch & Riley, 2003).

Since in the modern world there are almost no ethnically "pure" states, bilingualism as a phenomenon has become widespread throughout the world. For the modern world, bilingual societies are a common phenomenon, so the development of new effective methods for learning foreign languages with the involvement of the metalinguistic potential of bilingual speakers is relevant, the one that requires close attention and further development. It is especially important in this view to take into account the cognitive abilities of a multilingual personality (Bruin et al., 2014). Also important is the need for the professional development of young people: a high level of foreign language proficiency at the request of the media (Huidu, 2018; Ivanova et al., 2020).

Simultaneous study of FL1 (foreign language) and FL2 is possible and desirable for bilingual students. Learning two foreign languages in parallel is easier for bilinguals and is successful because it puts them in a familiar bilingual environment. We attribute the fact that bilinguals actualize the potential of metalinguistic knowledge during the study of foreign languages, they have already developed a system of skills, abilities, and opportunities to master a foreign language. It is also worth encouraging students to choose a language they speak worse, to improve communication skills (Rababah, 2020). Considering the study of three languages simultaneously at the University, we should say that the involvement of a third foreign language in the learning process of a bilingual or multilingual environment. For example, in several multilingual countries, there is the experience of teaching three languages simultaneously (trilingual formula) (Aronin & Singleton, 2018).

Polylingualism is quite common in Eastern Europe (Kotyk, 2017). The main practical developments in the field of bilingualism research are as follows: the improvement of methods of intensification of the foreign languages learning process (Cummins, 2007); the development and conduct of experimental research on the author's set of methods for studying several foreign languages by bilinguals; (Harding-Esch & Riley, 2003) the description of the results of the acquired experience of teaching 2 foreign languages to bilingual students (Köktürk, 2012); the acquaintance with the positive results of an experiment in the study of foreign languages by bilinguals (Köktürk, 2012; University of Haifa, 2011).

Taking into account the prevalence of bilingualism in the world, (Linck et al., 2015) it is worth exploring the potential and characteristics of this phenomenon that can help create new intensive methods of learning foreign languages, improve speech skills, opportunities to create quality texts, mass media products, expand the range of cultural and business opportunities in the field of media educational events, etc.

2 Aims

The purpose of the article is to study and analyze the effectiveness of learning 2 foreign languages simultaneously by bilingual students, which included:

- identification of ways to increase the effectiveness of methods of teaching foreign languages and motivation, also the activation of language competencies of students of media specialties;
- investigation the qualitative and quantitative indicators of intensification of foreign language proficiency, where it is possible for bilinguals to study 2 foreign languages at the same time;
- identifying the nature of the difficulties that arose during the parallel study of 2 foreign languages.
- the dependence of the student's success on the degree of motivation, and its evolution (to increase) during the experiment.

3 Materials and Methods

The experiment was implemented during the 2017-2019 academic years for media students of several Ukrainian universities (Kamianets-Podilsky Ivan Ohienko National University, Yaroslav Mudryi National Law University, Simon Kuznets Kharkiv National University of Economics). The experiment involved the capabilities of the Ukrainian-Bulgarian Center for Cooperation and Partnership in Kharkiv (Simon Kuznets Kharkiv National University of Economics), the club "Slavic Dimensions" (V. N. Karazin Kharkiv National University), as well as used partnerships with European universities, public organizations, human rights organizations, media partners, namely, the annual cooperation with the Alcide De Gasperi University of Euroregional Economy in Józefów, UNHCR Ukraine - United Nations High Commissioner for Refugees in Ukraine.

All participants in the experiment are bilingual because under such conditions they had the opportunity to verbalize the thought and idea by using different languages (Köktürk, 2012; Baker, 2006). Undergraduates of various mass media specialties voluntarily agreed to start studying two FLs, having a strong motivation: internship trips, internships, and training seminars to universities in the European Union, European NGOs, partner media. They studied two foreign languages in parallel (Polish / English; Bulgarian / English).

The method of interdisciplinary research was used during the complex application of sociology (creating groups of students), pedagogy (organization and conduct of the educational process

at the appropriate methodological level), the descriptive method used for the step-by-step recording of experimental materials, the course and the result of the experiment. The method of the experiment is the main in the work: it stimulates bilinguals to learn several foreign languages; identifies features (advantages and difficulties of learning foreign languages); allows to determine by qualitative and quantitative characteristics the effectiveness of bilingual studies of 2 foreign languages simultaneously in terms of teaching at universities.

A qualitative experiment was used during the experiment. It involved the use of comparative operations, which revealed motivation, personal expectations, self-assessment of performance, and difficulties and problematic aspects of bilingual learning of 2 foreign languages in parallel. Comparative operations made it possible to compare the results at different stages of the experiment.

To intensify the study of foreign languages by bilinguals, an experiment was conducted, which was divided into stages.

1. Groups for the study of several foreign languages were planned.
2. 2 groups of students (of mass media specialty) were formed to learn the language. 1 group of bilingual students studied 1 foreign language, the second - 2 foreign languages. Both groups consisted of 22 students. Of these (91% - female, 9% - male).
3. The time of the experiment was determined: 1 academic year. In the control groups, the training was conducted at the rate of 2 hours per week, 4 hours for independent work, 4 hours for the exam in each semester.
4. It was found that bilinguals can learn two languages in parallel.
5. Control was carried out and the level of motivation was measured by conducting a questionnaire at the beginning of training, before module control 1 (mid-semester), and at the end of the experiment (before module control 2 (end of the semester)).
6. Based on the results of the study, the result of the experiment was interpreted, the level of intensification of learning foreign languages by bilingual students was determined.

4 Literature Review

The study of bilingualism has a history. Describing the peculiarities of bilingual education and polylinguistic language situations in learning, Köktürk (2012) correctly outlined the attitude towards bilingualism, which was perceived as an intervention (Aronin & Singleton, 2018; Köktürk, 2012). The researcher pointed out that the modern view of bilingualism has changed due to new scientific knowledge. For a long time, scholars and educators of practice perceived the second language as an obstacle, interference in the social and educational experience of the child; the second language complicated the academic and intellectual development of the individual. But in reality, in the head of a bilingual person, both language systems are active even when only one of the languages is used. As a result, a situation of restraining one language system to another is possible. And today's task of scientists is to understand how to turn such phenomena in favor of the learner (Köktürk, 2012).

The typology of bilingual manifestations is analyzed, (Harding-Esch & Riley, 2003) a variety of forms and conditions of bilingualism (Linck et al., 2015) is also considered; the demonstration of various manifestations around the world, where bilinguals live in an even number of language situations is investigated (Veera & Pietilä, 2018).

Experiments on learning a foreign language by bilinguals were conducted in 2010-2011 (University of Haifa. Bilinguals find it easier to learn a third language. ScienceDaily, 2011). It is hypothesized that students who know two languages will find it easier to master a third language than students who are fluent in only one language. The experiment found that bilinguals (from

post-Soviet countries) found it easier to learn a third language because they had a better ability to speak with bilingual experience in their arsenal (Karpushyna et al., 2019).

Some studies (Veera & Pietilä, 2018; Shchepylova, 2003) define bilingualism as a manifestation of metalinguistic consciousness, as a special mental state that is the result of mastering several language systems (Huidu, 2018). The criterion for the formation of a multilingual personality is determined by the practical application of language in situations of real communication. (Shchepylova, 2003) Explorations were also implemented in the direction of analyzing the educational potential of multilingual mental capabilities of a person during the study of foreign languages (Veera & Pietilä, 2018).

The mental state of personality, which is also called multilingualism remains in the center of research. (9, 18)A study of the impact of multilingual learning on the development of multilingual personality in a polyethnic environment was introduced. The main characteristic of the multilingual state of personality is considered the presence of metalinguistic consciousness (Veera & Pietilä, 2018). Motivation to communicate in different languages, language competencies, attention to the peculiarities of language memory (verbal, associative), thinking in terms of educational technology were also investigated (Cavus & Ibrahim, 2017; Skibba, 2018; Kostikova et al., 2019).

Practical works on the realization of the potential of bilinguals in the context of digitalization, (Mason, 2006; Faryadi, 2017; Dizon, 2018) as well as the introduction of tools for studying multicultural material through foreign languages, mental features of polylingual, are also actively implemented in the modern humanitarian paradigm (Nenthien & Loima, 2016). It is also a study of the processes of formation of students' educational competencies with the use of innovative practical cases (Kuzmina et al., 2020). Consideration of foreign language teaching through research and scientific activities.

5 Results

5.1 The Quasi Experiment Basis

As part of the dualistic education program in higher education institutions in Europe, there is a need to study several languages in parallel. Thus, it will contribute to the implementation of the program of study at the universities of Eastern Ukraine and the European Union.

The leaders of the experiment united bilingual students into several control groups, where Group 1 (control group) studied according to traditional methods (without involving additional foreign language: only English or only Bulgarian), Group 2 (experimental group) studied two languages in parallel: Bulgarian and English; both groups had the same amount of study hours; the groups conducted a survey (at the beginning of the experiment, after the end of the 1st semester, at the end of the experiment), which involved the assessment of knowledge and acquired skills and the actual readiness of bilinguals to use this technique. The students involved in the experiment found themselves in a familiar situation of existence in the plane of two languages.

To intensify the study of 2 foreign languages at the same time, bilingual students were organized into groups, a curriculum with an elective course was created, and students made a choice. Each group consisted of 22 participants (Group 1 (control group) - 22 people, Group 2 (experimental group) - 22 people. 2 participants - male, 20 - female in both groups). Group 1 - bilinguals learn only 1 foreign language (2017, 2018). Group 2 - bilinguals learn only 1 foreign language (2017, 2018). Before the start of the study, a preliminary survey of students who participated in the training experiment was conducted. It included the question: "In your opinion, what are the main problems that hinder the development of bilingual education?" and possible answers: A. Confusion in the study of different levels of language; B.

Impossibility of speech practice in a private environment; B. Extensive workload in other disciplines; D. Impossibility to study abroad in addition to courses, individually, in schools.

The students answered that the following problems prevented them from mastering the bilingual curriculum:

1. Pedagogical (Linguodidactic) (confusion in the study of different levels of language) - 50% of respondents.
2. External (impossibility of speech practice in a private environment). - 45% of respondents.
3. Educational (big educational load of other disciplines) - 30%.
4. Socio-economic (impossibility to deal with foreigners in addition to courses, individually, in schools) - 40%.

Table 1. Difficulties faced by students in the group (authors' own conception)

Group	Pedagogical	External	Educational (workload)	Socio-economic
Group 1	55	40	25	45
Group 2	65	45	33	50

Calculations show the percentage of respondents who answered yes to the questionnaire. We took the formula for calculating interest.

$$P = n / N * 100\%$$

where
n is the number of respondents who answered in the affirmative,
N is the total number of respondents.

At the end of the experiment, participants were offered another questionnaire, which consisted of 4 questions:

What problems prevented you from learning 2 languages at the same time. Evaluate them in order from the biggest problem to the smallest (from 1 to 4 points):

It is difficult to perceive two languages at the same time. I'm confused all the time.
I do not have the opportunity to use a foreign language in life
Heavy workload at the university.
Lack of opportunity to study the language additionally outside the university.

The respondents indicated points 1, 2, 3, 4; and the number of answers was transtated into percentages (according to the formula shown above).

Table 2. Estimation of difficulties faced by participants of experimental groups before module control 1 (%) (authors' own conception)

Group	Pedagogical	External	Educational (workload)	Socio-economic
Group 1	60	40	30	45
Group 2	65	45	33	50

The participants of the experiment were placed in a situation where preference was given to the language that is more appropriate in a particular communicative situation (learning process to study FL1 and FL2).

During the training, different levels of tasks were performed. We offered texts of classics of literature and gave options for translation, analysis, and discussion, for example, quotes from the novel "The Master and Margarita" by M. Bulgakov. The experience of the influence of social networks and social media on the effectiveness of learning foreign languages was also used: posts from Twitter, Facebook, etc. were actively involved.

Particular attention was paid to the ability to build situational syntagmatic sequences, to respond correctly in cross-cultural situations, to actualize speech genres of behavioral scenarios. Dialogues in typical situations based on the model of communicative scenarios were considered, for example, topics "Business", "Shopping", "Travel", "Restaurant", etc. Cards with the beginning of the dialogue were offered, and the participants had to continue the dialogue in pairs.

During the teaching of the foreign language course, the aim was to present the vocabulary and grammatical structure of one language through the possibilities of another language, the knowledge that already existed, and those that were acquired during the study of FL2. For example, in the Bulgarian language belonging to the South Slavic languages (related to the East Slavic ones) the verbs form " минало свършено време" (aorist), " минало несвършено време" (imperfect), " минало неопределено време" (perfect). It allows drawing parallels with English verbs and those temporal forms that are traditionally difficult for native speakers of Slavic languages. Thus, students had to translate sentences where verbs in different forms were used (imperfect, aorist, perfect) from Bulgarian to Ukrainian, and from Ukrainian to English.

Students also actively used Internet resources with a large information base of free English, Bulgarian, Polish online podcasts (project BBC Learning English, CNN World News, Internet resource NOVA, BTV +, TVP Polonia, etc.), which create favorable conditions for improving skills listening in foreign languages.

Table 3. Estimation of difficulties faced by participants of groups before module control (%) (authors' own conception)

Group	Pedagogical	External	Educational (workload)	Socio-economic
Group 1	53	38	24	45
Group 2	65	45	33	50

5.2 Motivational level of the experiment

In the set of the mass media disciplines, the study of foreign languages occupies an important place. The curriculum provides a large part of creative independent work, where motivation plays an important role.

At this level of the experiment, the research group was interested in the intensity and structure of motivation in groups, as well as their evolution, because the motive performs the functions of content formation and encourages self-improvement.

At the beginning of training, the motivation was guided by the focus on results. The volume, strength, and orientation of the student to study several foreign languages depend on the intensity of the motive and their combination. The following positions were chosen by students of the media industry with the specific purpose of studying foreign languages:

1. Ability to communicate in several foreign languages.
2. Personal motives (scholarship, marrying a foreigner, bonuses from parents, etc.).
3. Get a good place for an internship, find a prestigious job.
4. Be able to make translations and create the author's texts in a foreign language.
5. Present their work at exhibitions, competitions, festivals, grant projects.

The goal, as we see, is directly related to the motive. If the connection between purpose and motive is strong and meaningful, then the possibility of effective learning increases.

The experiment also involves the formation of a motivational component, which takes into account the external conditions of learning two foreign languages in parallel. The curriculum was

developed, previously discussed with groups of students, and made some adjustments. At different stages of training, the use of different forms and methods of presenting material was provided, texts of mass media character, author's texts were involved, a group of teachers created some didactic material, additional material used by students during independent work. External conditions and teaching aids were also important factors that determined the effectiveness of learning several foreign languages in parallel.

As you can see, provided the correct combination of all the above components, the experiment can be successful and show

the intensification of the study of 2 foreign languages by bilingual students. It is necessary to provide a variety of tools and forms of education, richness, and completeness of the content, to ensure the highest possible level of personal development, but to give a sufficient degree of freedom of activity and creativity. Moreover, work in the field of media, and especially work in the mass media sector, involves the ability to communicate fluently in several foreign languages and create authorial texts.

Table 4. Changes in the motivation of Group 2 during the experiment (authors' own conception)

Stages of experiment	Personal motives	Professional growth	Career ambitions	Communication
At the beginning of the experiment (Module 1)	3	8	9	1
In the middle of the experiment (Module 2)	3	7	8	4
Final stage of the experiment	3	8	7	4

Motivation to carry out independent activities in the process of learning 2 foreign languages. Survey of a group of bilingual students at the beginning of the experimental program (authors' own conception).

Figure 1. As we can see, at the beginning of the experiment the motives of professional development and self-affirmation prevail, which is typical for young creative and ambitious future employees of the media industry. Less importance is given to personal interests and communication opportunities.

The beginning of the experiment (Module 1)
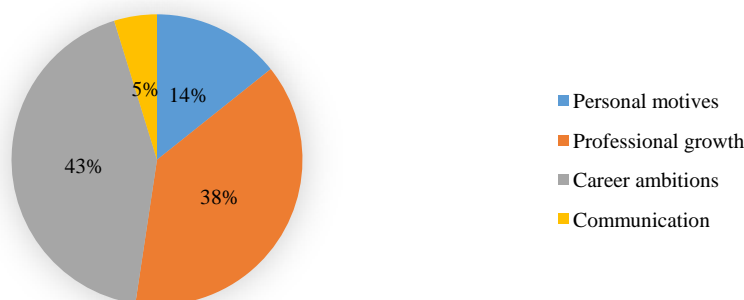
Figure 1. Initial stage

The evolution of motivation to learn foreign languages by students of the media specialty. Survey of a group of students at the stage of compiling the control module 1 (authors' own conception).

Figure 2. Decreased career ambitions increase understanding of the importance of communication skills. We see that learning

foreign languages leads to an understanding of the importance of the ability to carry out effective successful communication, we observe the evolution of priorities. Professional growth is also beginning to take into account communication skills. The motive of personal interest remains in full, the motive of communication has the lowest indicator.

The middle stage of the experiment (Module 2)

Figure 2. The first control stage

Evolutionary changes in the structure of motivation at the final stage of the experiment. Summing up after the control module 2 (authors' own conception).

Figure 3. The reaction to the success in learning two foreign languages in parallel in students majoring in media production is a significant evolution of motivation for the importance of communication skills. The complex of motives is more

proportionally distributed. In the course of the work, the motive for communication increased and the interest in professional growth decreased slightly. The motives of the career indicator have significantly decreased, and the personal motive has the same position during the whole experiment.

Final Stage of the experiment
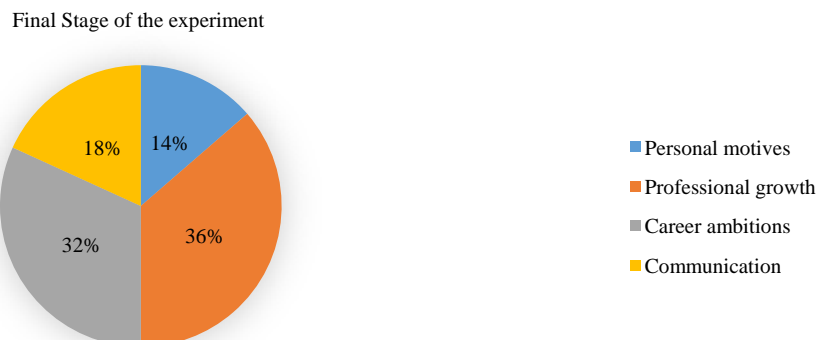
Figure 3. The second control stage. Final

The results of the experiment were measured by conducting control tests at the beginning of the course, Module 1 (mid-semester) and Module 2 (final). The assessment was conducted according to some criteria: knowledge of grammatical, syntagmatic, lexical structures, the ability to use them in writing and during the speech; the ability to translate texts (written and audio) and discuss them was also taken into account.

Table 5. Preliminary testing. (authors' own conception)

Group	Unsatisfactory	Satisfactory	Good	Excellent
Group 1	7 %	30 %	46 %	17%
Group 2	5 %	33 %	48 %	14 %

Table 6. Test 1. (authors' own conception)

Group	Unsatisfactory	Satisfactory	Good	Excellent
Group 1	5 %	35 %	40 %	20 %
Group 2	3 %	36 %	44 %	17 %

Table 7. Test 2. (authors' own conception)

Group	Unsatisfactory	Satisfactory	Good	Excellent
Group 1	5 %	32 %	46 %	17 %
Group 2	2 %	37 %	45 %	18 %

At the initial stage, the difference in knowledge of English was at the level of error of 1%, students do not know the second foreign language (Polish, Bulgarian), they have a beginning level.

Test for Module 1 showed that both groups demonstrated an increase in language proficiency; there are more "good" and "excellent" marks by 3% at this stage. At the final stage, there are 5% more "good" and excellent grades in Group 2, and there are 3% more "good" and "excellent" grades in comparison to the initial results in Group 1. As you can see, the effectiveness increases in both groups. After conducting the experiment and passing the educational and methodical practice in universities and specialized enterprises of the European Union, the results and analysis of the results of the employment of students who have taken courses and internships abroad were summed up.

Table 8. Employment and internship of students in the specialty. (authors' own conception)

Group	Number	Work in the specialty	Improve skills, volunteers
Group 1	22	8	4
Group 2	18	8	2

Program participants began to learn fourth, fifth, and other languages faster, using knowledge of other linguistic models. Learning foreign languages with bilinguals encourages you to continue learning languages. After studying in the experimental groups, 2 participants began to study Chinese, 1 - German. Positive aspects that resulted from the successful assimilation of two FLs:

▪ Educational aspect. The program was useful for all participants, regardless of their social, age, communication skills, and profession.
▪ Cognitive aspect. Bilingual students update their own cognitive abilities and are successful in performing creative and challenging tasks. Students also have a broad understanding of grammatical categories as linguistic constants; structural properties of language; cultural features of several ethnic groups. This knowledge is useful for successful multicultural communication.
▪ Socio-cultural aspect. Bilinguals have the opportunity to understand and communicate with members of other cultural groups and to expand their knowledge and skills. Students learned to respect the values, socio-cultural customs, and mental characteristics of speakers of other languages.
▪ Economic aspect. In today's European labor market there is a great need for professionals who have bilingual or multilingual knowledge. Students who undergo internships in international organizations, media, cultural projects, speaking important languages such as English, Russian, Romanian, Polish - are valuable and desirable professionals who can contribute to the economic development of business, cultural ties between countries.
▪ Motivational aspect. During the experiment, the structure of motivation changed. Career ambitions, which were higher in the previous survey at the end of the experiment, decreased by 25%. While the motive of communication as an effective technology has increased by 50%. Personal motives and ideas about the need for professional growth remained unchanged.

6 Discussion

The advantages of teaching bilinguals in special programs for the study of 2 foreign languages were simultaneously studied by a wide range of researchers in different positions: technological features of the learning environment of bilinguals (Baker, 2006; Karpushyna et al., 2019). It is argued that well-prepared technology-rich curricula and universities can engage learners in foreign language learning by forming a long-term internally strong motivational base (Kuzmina et al., 2020; Ahmad, 2016). The thesis about the activation of language competencies in bilinguals by complex means is confirmed, it actually increases the efficiency of foreign language acquisition: increases

vocabulary, opportunities to understand (listen), and produce their own texts (writing skills).

Positive results of teaching a foreign language to media students with the involvement of a strong socio-cultural base are presented in the scientific literature, (Synorub & Medynska, 2019; Mykytiuk et al., 2020) students involved in the experiment, found themselves in a familiar situation of existence in the plane of two languages, two cultures, two models of mastering society.

This is a useful and effective experience of intensifying language competencies, which includes specially developed methods that are built on the existing opportunities of students. Cummins (2011) analyzed learning strategies for teaching foreign languages and the introduction of bilingual in-depth programs, he opposes the total use of monolingual learning strategies, but in a bilingual environment proposes to develop bilingual learning complexes. Such measures are aimed at encouraging the communicative interaction of bilinguals in writing and speaking.

The work on the use of three languages in the school at the same time has also been described by some researchers (Linck et al., 2015). The involvement of a third foreign language in the learning process of a bilingual or multilingual environment (trilingual formula) motivates media students to intensify social ties, improve their professional level and social responsibility.

Difficulties in the study of several foreign languages by bilingual students in higher education today are as follows: 1) the lack of elective courses in the curriculum, which provide for the study of 2 languages in parallel; 2) the study was conducted with a limited number of groups of students, this caused a certain limitation of the experiment and its results; 3) metalinguistic perception (in the environment of coexistence of ethnic groups and languages there is a problem of mixing, simultaneous use of two or more languages in one message), however more developed metalinguistic perception gives the chance, even making mistakes during the speech, to understand grammar and syntagmatic, faster their get rid of mistakes; 4) learning two FLs in parallel requires more time and resources than learning one foreign language.

7 Conclusion

Based on the experiment, it was found that the intensification of the study of 2 languages simultaneously by bilingual students is an effective method. Simultaneous study of FL1 (foreign language) and FL2 is possible and desirable for bilingual students. Learning two foreign languages in parallel for bilinguals is easier and more successful because it puts them in a familiar bilingual environment. We can explain this by the fact that bilinguals actualize the potential of metalinguistic knowledge during the study of foreign languages; they have already developed a system of skills, abilities, and opportunities to master a foreign language. It is also worth encouraging students to choose a language they speak worse to improve communication skills.

It was found that the success of a bilingual student depends on the degree of motivation, its evolution, and ability to identify and overcome difficulties. During the experiment, the following changes in the motivational system were determined: career motive decreased by 11%, professional growth motive decreased by 2%, and communication motive increased by 13%; personal motive remained unchanged - 14%. Group 2 (experimental group) increased the overall growth in foreign language proficiency by 3%: Group 2 received 5% more "good" and "excellent" grades. In Group 1 (control group) 3% of grades "good" and "excellent" remain.

The scale identified the main difficulties encountered by the participants during the experiment. Group 1. Pedagogical 60%; External 40%; Educational load 30%; Socio-economic 45%. Group 2. Pedagogical 65%; External 45%; Educational load 33%; Socio-economic 50%.

The number of employees in the specialty increased in Group 1 by 12%; in Group 2 by 12%. As a result, a change to a positive assessment by the participants of the experiment was determined to the benefits of learning two foreign languages simultaneously. This allows us to conclude the metalinguistic potential of bilingual students to intensify their capabilities.

8 Practical Use

The methodology proposed in the study provides an opportunity to train competent and professionally effective specialists who are transmitters of a new current language culture within the multilingual space of modern Europe.

Also, further research should be conducted in the following areas: 1) determining the effectiveness of the impact of a multicultural environment, which dictates the need to learn EU languages; 2) the effectiveness of teaching foreign languages in the development of socio-cultural, economic and educational activities at universities; 3) the study of the effectiveness of methods of learning a foreign language, related to the free choice of the student, the study of several languages simultaneously increases employment opportunities; 4) problems of the studied languages due to the intensification of the intellectual potential of polylingual, etc.

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HISTORICAL AND PHILOSOPHICAL APPROACH TO TEACHING DISCIPLINES IN HIGH SCHOOL

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Abstract: The aim of this research is to clarify the conceptual content of the historical and philosophical principle of teaching and determine its relevance in the context of realities of modern higher education. Such scientific methods as the method of observation, description, generalization method were used. This study is characterized by the representation of philosophy in a concrete historical manifestation and understanding of history in a philosophical way and as determinators of the philosophical development of mankind. Effective and fruitful application of the historical and philosophical approach to teaching other disciplines in the structure of higher education is possible only through a full, sufficient prior mastering of philosophy as a separate self-sufficient discipline.

Keywords: historical and philosophical approach, philosophy, philosophy of education, philosophy of science, history, epistemology, high school, teaching.

1 Introduction

At the present stage, under the conditions dictated by circumstances of the information age, when access to information is no longer a preference of certain social circles, and therefore ceases to be a problem or obstacle to obtaining certain qualifications, other educational priorities come to the fore. Traditionally, the emphasis in modern educational programs is not so much on the possession of a wide range of disparate, but subject-integrated information, as on the ability to use it to achieve pragmatic goals of personal life (practical and spiritual) and professional activities. The excess of information educational resources raises the question of their quality sorting, targeted filtering, as well as filtering in terms of reliability. Despite the current wealth of information, epistemological philosophical issues are not exhausted, but, on the contrary, have become even more acute. In the event of a negative answer to the basic question of epistemology, which concerns the world cognition, the whole meaning of science, education is levelled, seems a waste of time and titanic effort in trying to know what a priori cannot be known. In addition, if, in principle, the world can be defined as cognizable, the next question concerns the reliability of human knowledge about the world. The very nature of education and pedagogy leads to the thesis that the main foundation of their existence in the modern world and in general is the position of epistemological optimism. Thus, the fundamental cognizability of the world, the absence of limits of cognition is recognized. Achieving the relative absolute of knowledge (temporary, intermediate, personal, industry, etc.) requires only the appropriate amount of time and possession of relevant means of cognition.

On the other hand, it is impossible not to recognize that the absolute of cognition is possible only in a specific historical and/or personal dimension. The knowledge which was possessed by mankind centuries ago and considered innovative, today is mostly anachronistic in terms of the development of a particular branch of knowledge, as well as in terms of personality, which acquires more and more new knowledge in the process of educational and further professional and intellectual development. Understanding the nature and all the complexities of the process of cognition inevitably affects the teaching of general and specialized disciplines in higher educational institutions. Without the historical and philosophical approach to teaching any subject, firstly, it is impossible to comprehend the development of scientific thought in a particular branch of knowledge in diachrony, to trace the formation of complex scientific inferences and determine the dynamics of the development of a particular scientific field, and secondly, it is also impossible to comprehend all the relativism of the process of cognition and the completeness and authenticity of knowledge in synchrony. That is why the historical and philosophical approach to teaching disciplines in higher school, based on the active and creative use of tools of gnoseology, epistemology, history of science, history of society, etc., can be considered the most fundamental principle of teaching any university discipline.

In the context of the topic of the current research, it is worth paying attention to the definition of scientific ranks. In particular, it is about the level of Doctor of Philosophy (PhD). In fact, this educational and scientific qualification does not directly relate to philosophy as a science. Instead, it tends to etymologically primary semantics, which consists in the love of wisdom, the pursuit of cognition. The title of Doctor of Philosophy is awarded to specialists-scientists in the field of history, philosophy proper (then the title acquires a specific meaning), social sciences, mathematics, natural sciences). Accordingly, the historical and philosophical approach to teaching disciplines in higher educational institutions is aimed to trace the development of cognition in a particular field, the dynamics of scientific discoveries, to justify the evolution of approaches to cognition in general and by the example of a particular science, allows to form plastic worldviews, adaptive attitude of students to cognition as a phenomenon, as well as fosters a motivational and self-critical approach to epistemological processes, stimulating activity and personal consciousness in cognition.

In modern realities, the historical and philosophical approach to teaching in high school is particularly relevant, performs a number of fundamental functions, which will be considered in the following sections of this study. In the absence or insufficient implementation of the historical and philosophical approach to learning academic disciplines, it becomes a priori impossible to talk about the integrity of scientific thought, continuity in the development of science, as well as it is impossible to clearly define the prospects for further evolution of human knowledge.

2 Literature Review

The analysis of scientific publications on the topic revealed a lack of studies that would focus specifically on the historical and philosophical approach to teaching disciplines in high school. This once again confirms the relevance of the selected direction of the research. However, such modern researchers as (de Brzezinski Prestes & Silva, 2018; Deming, 2007; Dumbraveanu, 2017; Fulford et al., 2020; Gougoulakis, 2017; Haaz, 2019; Jasso-Méndez, 2018; Kozlovets' et al., 2020; Lampert, 2020; Lewis & Sutcliffe, 2016; Litvin, 2015; Newman et al., 2019; Norman, 2020; Orchard et al., 2019; Savyts'ka, 2016; Sharma et al., 2020; Sun, H., Varankina & Sadovaya, 2017; Tonelli & Upshur, 2019; Vlieghe, 2020), and others are engaged in the development of related issues of pedagogy, which are in the semantic range of concepts of "education", "philosophy", "history", "high school".

(Litvin, 2015) focuses on the emergence and formation of the historical and philosophical approach to learning the reality and understanding science, which is reflected in the methods of teaching university courses. Thus, already at the time of the German philosopher Max Scheler (1874-1928), philosophical anthropology, manoeuvring between the attraction one day to nature study and another day to Christianity, makes the concept of historicism and its philosophical potential the subject of its attention. Hypothetically, historicism acquires precisely the value meaning, moving to the sphere of interests of human philosophy from the historical and critical methodology of the XIX century. This is how the concept of historicism emerged, and many favourable factors contributed to its formation in that period: most philosophical theories of the nineteenth century draw attention to the need to define history, as well as a perspective on it. Thus, there was a need to build a new attitude to history, determined mainly by the fact that the academic community was able to comprehend the distance, which separated it not only from antiquity, but also from the primitive times of human existence (Litvin, 2015). This stimulated all methodological philosophical directions of the XIX century to operate with the dynamics of the historical process in one way or another. This was also caused by the danger that without a certain sequence of events and determination of the causality of stages of human development, evolutionism would lose its ideological integrity and predictability. In the context of anthropology as a philosophical direction, historicism acts if not as the order of organization of human thinking itself, then certainly as a hermeneutic technique. Any text of culture (including scientific, which is, in particular, the text that makes up the content of the academic discipline) is interpreted taking into account the "historical experience" and "history of influences".

(Savyts'ka, 2016) draws attention to the urgency of the problem of philosophical understanding of the philosophy of education in general. In particular, the problem is that innovation in modern high school is not interpreted as the implementation through educational tools of anthropological and philosophical concepts of man and human culture, but as a response to demands of the market economy and processes of end-to-end global integration. (Savyts'ka, 2016) sees the key task of education in the XXI century in the development of thinking, which is focused on the sustainable future (within the framework of the implementation of sustainable development programs, which address the quality of education and partially refer to problems of modern philosophy of education). In this context, education based only on knowledge and intelligence cannot be considered innovative and cannot meet the criteria of sustainable development in the field of education, as it does not take into account the orientation towards future, does not give consideration to long-run prospects of education and science – two system-forming and interdependent categories forming the paradigm of any academic discipline. (35) calls the outdated model of education traditional (technocratic), while new approaches to understanding science and education, as well as the process of teaching disciplines in high school, are called creative and dynamic. In this regard, (Dumbraveanu, 2017) considers philosophical problems of modern digital empowerment, in particular, on the implementation of Open Educational Resources for higher education. (Dumbraveanu, 2017) relates models of application of Open Educational Resources with the concept of philosophy of education. (Sharma et al., 2020) consider preconditions and features of creating a quality teaching-learning environment using Teaching Philosophy Statements in high school – as an effective tool for improving the teaching and learning processes in higher educational institutions. In addition, (Sharma et al., 2020) claim that the use of Teaching Philosophy Statements increases the level of satisfaction of students with higher educational institutions.

According to (Deming, 2007), technocratic models of teaching university disciplines, as well as the whole model of technocratic, knowledge-oriented education cannot claim the function of "comprehensive" knowledge about the world and man in this world, as it operates mainly with a set of subjective dogmas, which can give the individual neither an understanding of himself nor help to know the world with an adequate understanding of historical ways and prospects of science. Non-philosophical, dogmatic approach to teaching disciplines of high school is dangerous, because it creates a certain education and qualification level of illusion of exhaustibility of knowledge, limitation of science, while this is followed by the inevitable disappointment in failed scientific paradigms. This situation may result in personal, scientific and professional crises. This is gaining menacing proportions in social measurements. The philosophical approach to teaching disciplines in universities forms the attitude to knowledge as a methodological basis and tool for achieving a true understanding of the essence of cognition as such and the essence of knowledge of a particular science. (Norman, 2020; Orchard et al., 2019) hold the same view, addressing some historical and philosophical issues of teacher training in the framework of Initial teacher education (ITE), as well as (Sun et al., 2017), concentrating on issues of historical and philosophical approaches in the structure of mathematical didactics. (Gougoulakis, 2017) focuses on the role of the university as a producer of knowledge within the problem of educating scientists. The author defines philosophical foundations of university pedagogy, presenting in this vein specific practices of university education in Sweden in respect of training teachers of higher educational institutions. (Tonelli & Upshur, 2019) requires the application of philosophical approaches in training students of medical faculties in order to overcome the concept of uncertainty, which classifies moral, metaphysical and epistemological uncertainty. The purpose of such a philosophical approach in the structure of training medical professionals should not be in-depth study of philosophy as a discipline. The pragmatic goal of applying philosophical approaches to teaching should primarily consist in teaching students the skills of correct thinking and assessment of reality and language skills as a way to verbalize thought mechanisms (logic of expression of opinion). According to (Tonelli & Upshur, 2019), the integration of philosophy into medical education will not only improve the training of doctors, but will also stimulate more attentive clinical practice that will benefit both doctors and patients.

(Vlieghe, 2020) considers the current situation and tries to outline the prospects for the development of the discipline "Philosophy of Education". One of the key issues in the work is the dilemma of whether the philosophy of education can be considered a self-sufficient university discipline, or whether it is only a methodological basis of teaching, integrated into teaching methods of other subjects of high school, and should not be included in higher education programs as a separate subject. The discussion surrounding this issue goes beyond the philosophy of education as a discipline, as the formulation of a position on the philosophy of education as a methodological basis or as a self-sufficient subject is designed to clarify the difference between the critical and postcritical view on higher education in general. As a result of considering all the pros and cons, (Vlieghe, 2020) supports the post-critical approach, recognizing the intrinsic value of this discipline. Philosophy of education both as a separate university subject and as a methodological direction to teaching all disciplines in the context of modern university education allows to adequately perceive and interpret educational transformations. As a result of a detailed review by (Vlieghe, 2020), the value of the philosophy of education as a discipline is legitimized, fully justified by the author, which is why it is proposed to call it "Philosophy as Education". Thus, the author not only emphasizes the importance and correctness of the philosophical approach to the interpretation of the educational process in high school, the importance of the philosophical approach to teaching disciplines in universities, but also equates philosophy and education to some extent: philosophy is education, education is philosophy. Analysing the interconnectedness of philosophy and education in a diachronic context, it is difficult to disagree with this statement, because philosophy and education have always had a mutual influence.

The collection of works "Teaching Science with context: historical, philosophical, and sociological approaches" (de

Brzezinski Prestes & Silva, 2018) is a thorough publication, entirely focused on issues of historical and philosophical approaches to teaching natural science in high school. The issues of substantiation of historical and philosophical approaches in teacher training, problematic issues of epistemological concepts of training of university teachers and students of natural specialties, topical issues of didactics in the vector of historical and philosophical evolution of mankind and educational systems, experience of applying the historical and philosophical approach to teaching specific natural sciences in universities have been considered (by type of cases).

(Lewis & Sutcliffe, 2016) see in modern philosophy the task of becoming an integrative factor for the entire vertical of the educational system. Of course, the widest opportunities for the full use of the didactic influence of philosophy are provided by high school, however, according to (Lewis & Sutcliffe, 2016) and (Jasso-Méndez, 2018), preparation for this stage should begin at school. This will allow to prepare a certain foundation for the formation of a special type of worldview in students, which will help both in the comprehension of principal subjects and in personal self-determination. In this regard, it is worth mentioning the work of (Haaz, 2019), who focuses on issues related to the concepts of the value of critical knowledge, epistemology, ethics and education. The term of Philosophical History is defined as a foundation for the actualization of epistemological and cogitative and critical values and self-transformation of education in modern conditions.

(Lampert, 2020) draws attention to the main philosophical studies of theoretical and methodological interest for defining conceptual approaches to science education, teaching in general education institutions and principles of arrangement of education programs. The main emphasis is made on the potential contribution of philosophical approaches to the formulation and interpretation of various aspects of the educational process. (Lampert, 2020) defines his scientific goal as the desire to integrate basic philosophical knowledge and approaches into intellectual practice within education programs. This implies going beyond academic disciplines, a broader and more thorough view of any subject and the nature of human knowledge in general. According to (Lampert, 2020), the historical and philosophical approach to teaching should become dominant from senior school, gradually deepening and reaching its fullness when teaching university disciplines. The significance of the positive influence of philosophy in general on the increase of scientific literacy of students within the framework of obtaining a certain education and qualification level and specialty and on the formation of a harmonious and thinking personality as such has been substantiated. Thus, historical and philosophical approaches to teaching deepen the mutually beneficial collaboration of philosophy and science, philosophy and pedagogy, etc.

Thus, the work "Philosophy and Community: Theories, Practices and Possibilities" (Fulford et al., 2020) considers the application of historical and philosophical approaches to teaching as a basis for the formation of not schooling skills, but education skills. This thesis is clearly outlined in the preface to "Community-engaged philosophy for lifelong learning". In other words, philosophy allows to make education a constructive core of human life and teaches it to learn at all stages of life. Education, according to. (2020), is life itself. Therefore, the attitude to education as a vital need can improve the quality of professional and personal life of modern man (Newman et al., 2019).

As the analysis of current studies on the subject shows, nowadays history and philosophy are increasingly no longer self-contained disciplines. Modern didactic tendencies consist in active involvement of philosophy and history not only as basic educational disciplines in the context of any specialty in high school, but also selectively, according to the target principle – for a fuller and more holistic understanding of the surrounding reality and harmony of professional development.

3 Aims

The aim of this research is to clarify the content of the historical and philosophical approach to teaching disciplines in high school, to define its determinacy by factors of modern ontological development of mankind, to identify formal ways of implementing the historical and philosophical approach and its importance for the integration of the entire content of higher education.

4 Methods

In the context of this research, the following research methods were used:

- observation method (study of the nature and ways of implementation of the historical and philosophical approach to teaching);
- description method (used during the literature review on the topic, description of the content characteristics of the historical and philosophical approach);
- method of comprehensive analysis (analysis of recent scientific studies covering problems of the historical and philosophical principle of teaching, analysis of policy documents on the place of philosophical principles in the paradigm of teaching in educational institutions);
- functional method (when determining functions of the historical and philosophical approach in higher school pedagogy);
- comparison method (comparison of different approaches to characterizing the content of the historical and philosophical approach, comparison of ways of implementing the historical and philosophical approach during the preparation of educational materials);
- system analysis method (establishing structural links between elements of the historical and philosophical approach);
- abstraction method (disclosure of internal, essential, stable and general connections in the conceptual paradigm of the historical-philosophical approach to teaching disciplines in high school).
- generalization method (making conclusions from the research, determination of prospects for further studies on the topic).
- This work is based on the perception of historical and philosophical approach in dialectical unity: the representation of philosophy in a concrete historical manifestation and understanding of history in a philosophical way and as determinants of the philosophical development of mankind.

The information base of the research includes monographs, scientific publications on the selected topic (selection was carried out through the Google Scholar search database using appropriate search words and filters), regulatory documents in the field of education (CAST Professional Learning, 2017), the document of UNESCO "Philosophy, a school of freedom: teaching philosophy and learning to philosophize; status and prospects" (Goucha, 2007; Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), 2015) own observations.

5 Results

The historical and philosophical principle of teaching disciplines in high school is regulated by numerous policy documents of international European organizations on education, in particular European Association for Quality Assurance in Higher Education (ENQA), European Students' Union (ESU), the European Association of Institutions in Higher Education (EURASHE), the European University Association (EUA). CAST, as an American organization, which formulates its goal in the constant transformation of educational design and practice (because learning has no boundaries) and active implementation of principles of the educational paradigm of Universal Design

for Learning (Goucha, 2007), sees modern approaches to expert learning in:

- support for appropriate goal-setting (concerning the philosophy of pragmatism, philosophical concepts of perfectionism, etc.);
- high educational expectations from each applicant, on the one hand, and recognition of the variability of what can be called academic achievements, on the other (based on the philosophical theory of relativism and philosophical aspects of the general theory of relativity);
- emphasis on the practice of teaching disciplines and generalized teaching experience (philosophical pragmatics, historical development of problems of a particular science, historical context of science, profession and human knowledge in general, etc.);
- focusing on the process, not only on the result (allows to stimulate motivational aspects of applicants' activities, prepares for an adequate perception of difficulties in learning and professional activities, research approach to learning);
- self-reflection (transformation of objective knowledge into personal experience, abstract and concrete understanding of educational theory and practice, understanding oneself in the context of learning, ability to objectively assess one's own educational achievements).

As we can see, each of the principles of the organization of Universal Design for Learning should be implemented through historical and philosophical approaches to carrying out pedagogical activities in high school. In addition, the historical and philosophical principle of teaching is related to the Teaching for Understanding Model by (Blythe & Perkins, 1998; McCarthy & Butler, 2019; Wiske, 2005) which develops learning activity, student-centred learning paradigm. Teaching for Understanding is a technology that leads students to the ability to think within a given topic, explain, justify, find the necessary arguments to prove their point of view, generalize, draw analogies, apply a creative approach to problematic issues of science in order to interpret known aspects in a new way. The historical approach in the context of Teaching for Understanding requires teachers to present educational information in such a way as to establish links between prior knowledge and new knowledge, which develops a conceptual understanding of the topic. Thus, *based on the analysis* of conceptual *characteristics* of Teaching for Understanding, *it can be argued that*, through the historical and philosophical approach to teaching university disciplines:

- attitude to learning as a long-term process, where the central organizing component is thinking, is formed;
- attention is paid to development factors;
- students are involved as subjects of activities and subjects of science, with the stimulation of their activity, critical thinking and self-criticism, ability to evaluate philosophical concepts of the past and present, ability to consciously treat the formation of their own worldview and the formation of a collective worldview in a creative, active way;
- active perception and fixation on creative transformation of the surrounding reality, consideration of differences in a key of variability of the phenomena, processes, relativism and optimistic attitude to the world surrounding the applicant's personality (in particular, epistemological optimism) is implemented.

The historical and philosophical approach correlates with such European standards of education (Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), 2015) as:

- implementation of education programs in such a way as to encourage students to take an active role in creating the learning process, the desire to ensure that the results of students' learning activities reflect a conscious approach to learning, self-education and objective reality (which is the result of human history, development of scientific and

philosophical thought, creative perception of realities and oneself in the context of these realities);
- compliance of high education programs (and, consequently, approaches to teaching academic disciplines as structural elements of the program) with the needs of students and society.

In the publication *Philosophy, a school of freedom: teaching philosophy and learning to philosophize; status and prospects*, concerning approaches to teaching philosophy in universities and philosophy as an approach to teaching other disciplines, UNESCO defines the mission of the organization as ensuring intellectual and moral solidarity of mankind, coverage and promotion of knowledge in general. In an open, integral and pluralistic society, focused on knowledge as such and the possession of knowledge, philosophy occupies a prominent place. Therefore, teaching philosophy, along with other social and human sciences, remains under the control of UNESCO. In a broad sense, philosophy is interpreted as a doctrine of freedom and critical thinking (Goucha, 2007). It is worth noting that the directives for teaching philosophy were formulated by UNESCO in the Memorandum on the philosophy programme in June 1946. The position of UNESCO is quite categorical: neglect of philosophy threatens the spread of obscurantism and extremism.

The historical and philosophical approach to teaching has a dominated interdisciplinary teaching strategy. In particular, it concerns the qualification of philosophy as a separate subject of the university program and the introduction of historical and philosophical teaching methods into other courses. Interdisciplinary approach to teaching philosophy is aimed at developing philosophical skills or strengthening philosophical approaches in other subject areas. This in no way replaces philosophy as a separate subject. In fact, the effective and fruitful application of the historical and philosophical approach to teaching other disciplines in the structure of higher education is possible only through a full, sufficient prior mastering of philosophy as a separate self-sufficient discipline. That is why teaching philosophy at the initial stages of higher education is regulated (I-II courses of study). Among other things, it contributes to an adequate understanding of philosophy as the cradle of all sciences.

The historical and philosophical approach to teaching university disciplines is formally reflected in:

- general organization of harmonious modern educational space;
- preparation of educational programs of high school;
- preparation of educational materials (textbooks, manuals, multimedia materials, etc.);
- organization of classroom and extracurricular activities, independent and individual work of applicants;
- interpersonal communication.

Consider the formal implementation of the historical and philosophical approach in the logic of the organization of university textbooks. Thus, traditionally after the introductory lesson in a particular discipline or in its structure, historical issues of origin and development of the particular discipline are considered with a philosophical outline of the periodization of development with a view to fully justify the cause-effect relationship between facts and phenomena. Learning any scientific discipline should begin with the history of the science itself. Knowing different true and wrong scientific hypotheses, which determine the development of a particular scientific discipline, the student is able to gradually understand the tasks of the science, outline the problems it poses and solves, and in the long run – to understand the importance of this science. In the process of analysing the development of each science, focusing on a detailed list of personalities of scientists and detailed characteristics of their scientific theories and achievements is less important than trying to give a general understanding of hypotheses and problems solved by prominent minds in a particular historical period. Even if their hypotheses were true or wrong. The falseness of scientific hypotheses allows error as an

integral element of development, which does not stop the scientific search, but, on the contrary, provides a clear direction for reassessing current activity vectors and outlines prospects for research. This, in turn, provides students with certain epistemological and worldview insights.

A comprehensive analysis of characteristics of the historical and philosophical approach to teaching as a phenomenon of modern didactics suggests that teaching university disciplines of human and social and artistic and aesthetic directions has the most favourable prerequisites for the full application of the historical and philosophical approach. We can trace the model of implementation of the historical and philosophical principle of teaching quite comprehensively by the example of mastering the English course in terms of the Undergraduate Study at the University of Cambridge, resulting in a Bachelor of Arts (UCAS code: Q300, English Language and Literature BA Honors). The official information on admission to this training program states that "The course also embraces all genres and periods, including writing by, for example, *philosophers* and essayists, as well as

the more traditional genres of poetry, prose, and drama". The description of the same training program of the Newcastle University contains many references to the historical approach to teaching disciplines. The formation of foundations for "theoretical and historical study of language and literature" (28) is fundamental to mastering the course and obtaining the appropriate qualification: This <…> degree develops your knowledge of the *history of English* and how it's used. You'll be able to immerse yourself in <…> Philosophical Society.

The application of the historical and philosophical approach to teaching is clearly traced in the design of textbooks of philological direction, in particular, on literature. Textbooks by (Clarke & Rossini, 2017; Lyons, 2016; Meyer, 2018; Nelson, 2015) can also serve as an illustrative example of completeness of the implementation of the historical and philosophical approach to teaching literature. A comparison of the methods and scope of application of the historical and philosophical approach to their organization is given in Table 1.

Table 1. Ways of representation of the historical and philosophical approach to preparing textbooks on literature

No	Bibliographic description of the textbook	Table of contents	Logic of presentation of the material	Emphasis on specific philosophical teachings	Observance of historical and chronological regularities in the analysis of literary phenomena
1	Nelson, B. (2015). The Cambridge Introduction to French Literature. Cambridge: Cambridge University Press.	The material is organized chronologically: works of French writers from Francois Villon to Samuel Beckett are analysed. Each personality in the content has a generalized brief description after a colon, often in a philosophical way. For example, *Diderot: the enlighted sceptic*	The inductive principle of representation of the material is observed. After the paragraphs devoted to 29 separate figures from the history of French literature, a summary paragraph, which introduces the history of French literature into the context of the XXI century, is presented: "French literature into the twenty-first century". The list of supplementary books, which corresponds to the educational and philosophical paradigm of Continuous Learning, is given.	In the process of analysing the work of writers, attention is paid to philosophical teachings, in particular the philosophical trends of the Middle Ages, Renaissance, Enlightenment, Modernism, the directions of scepticism, surrealism, etc.	As noted in the introduction, "Writers are presented succinctly in the context of their times". Before the introduction, there is a list of historical events, which influenced the phenomena and processes described in the book, in chronological order.
2	Lyons, J. D. (2016). The Cambridge Companion to French Literature. Cambridge: Cambridge University Press.	A collection of essays for a deeper understanding of features of French literature. The table of contents is made on the principle of genre-thematic and philosophical-conceptual organization of the material.	Philosophical understanding of the nature of literary creativity is given,	Philosophical directions of the Middle Ages, Renaissance, Enlightenment, Modernism, the directions of rationalism, empiricism, and others are actively introduced into the context of the material as basic philosophical directions for covering the topic.	Generalized and historical approach to the presentation of the material: "It may be useful to think of each of the following chapters as windows onto French literature over ages"; "The past is never dead. It's not even past." Before the introduction, there is a list of historical events, which influenced the phenomena and processes described in the book, in chronological order.

| 3 | Clarke, B., Rossini, M. (2017). The Cambridge Companion to Literature and the Posthuman. Cambridge: Cambridge University Press. | The table of contents of the first part of the book is organized chronologically. In general, the logic of the chronology of historical eras corresponds to both the literary and philosophical development of the periods reflected. | Preface to the book contains fundamentally philosophical issues: "Preface: Literature, Posthumanism, and the Posthuman". All historical and literary phenomena are further analysed exclusively in philosophical paradigms, which correspond to temporal determinants of the objects of study. | Almost all the philosophical directions and trends relevant to the time from the Middle Ages to modern Postmodern philosophy are mentioned. | Part One is organized fully chronologically in accordance with the literary periodization: Medieval, Early Modern, Romantic, Modern, Postmodern. |
| 4 | Meyer, S. (2018). The Cambridge Companion to Literature and Science. Cambridge: Cambridge University Press. | The table of contents demonstrates the organization of the material in accordance with historical (from W. Shakespeare to G. James) and philosophical principles: the application of a broad philosophical context to outline the described phenomena. For example, it can be traced in positions "From Writing Science to Digital Humanities", "Science Studies and Cultural Studies", "Science and Modern Reading" | All the material: from the editorial introduction to the editor's final word ("Fututes Past and Present: Literature and Science in an Age of Whitehead") is presented with a thorough application of historical and philosophical approaches to the analysis of literary phenomena. | Philosophy of modernism, Darwinian worldviews, theory of relativity, relativism, worldview of digital humanities, etc. | Before the introduction, there is a very detailed list of historical events, which influenced the phenomena and processes described in the book, in chronological order. All conclusions of the authors are closely connected with the historical background. |

Table 1 obviously demonstrates the end-to-end integration of the historical and philosophical principle into the organization of the analysed manuals for teaching literature. In this way, it is possible to trace the realization of the historical and philosophical potential in relation to other disciplines in the paradigm of higher education.

The logic of application of the historical and philosophical approach to the organization of textbooks is visualized using the example of the table of contents of the textbook by (Klarer, 2005) "An Introduction to Literary Studies" (Fig. 1). The sections, where the historical and philosophical approach to the presentation of educational material is applied to the greatest extent, are marked. The structure of the table of contents and the actual logic of the presentation of educational problems shows that the historical and philosophical principle is embodied here.

Fig. 1. Model of Contents of Textbook by (17) "An Introduction to Literary Studies"

It becomes possible to adequately consider the process of development of any science in the context of the historical and philosophical approach to teaching in the unity of intra-industry and external relations, taking into account their determinacy by socio-economic phenomena of a concrete-historical era. Thus, the whole course of scientific knowledge appears as a process of dialectical development.

5 Discussion

The system of higher education in the context of globalization and the rapid development of innovative mechanisms of teaching and learning is in dire need of an integrated component that would prioritize the development of education, establish a semantic link between the past, present and future of the education system in its global and national manifestations. Such an integral component is the historical and philosophical approach to teaching university disciplines (Marks et al., 2016). The historical and philosophical paradigm of educational development is a manifestation of a serious, consistent and long-term educational policy (Jalal, 2020). The historical and philosophical approach to teaching university disciplines, according to the research results, in particular theoretical and practical, which consisted in identifying the semantic and formal ways to implement historical and philosophical principles of organization of higher education environment, is at the same time an appeal to the ancient depths of formation and development of a particular science and a determinant of the most far-sighted scientific perspective (Savyts'ka, 2016). Philosophical and historical approaches contribute to the view of the innovative educational process as a whole, covering all the diversity of manifestations of education, ontology of education as an abstract-philosophical and concrete-historical phenomenon. Innovativeness of education as a fundamentally important response to challenges of modernity means the flexibility of the educational system, its openness to innovation (and not only and not so much in the technological dimension of this concept, but in the worldview, philosophical semantics). The philosophical understanding of education and science orients the content of pedagogical innovations, which are introduced through teaching subjects in educational institutions, so as to prepare the worldview of an individual to adequate ways, scope, methods of understanding and interpreting the surrounding reality (Kozlovets' et al., 2020; Lewis & Sutcliffe, 2016).

Today, the philosophical approach to teaching in the developed countries has reached a qualitatively new level of development and appears as a holistic movement covering educational institutions across the entire vertical of the education system: from school to higher education, informational educational organizations, postgraduate education institutions, etc (Hong, 2019; Lewis & Sutcliffe, 2016).

The historical and philosophical approach to teaching disciplines in high school allows us to say with confidence that, at all stages of development of any scientific discipline, scientific ideas, directions develop in parallel with philosophical thought (Novak, 2016). However, in some historical periods, philosophical ideas and concepts may even outpace the success of scientists and help make evolutionary scientology leaps. But it also happens that scientific achievements of the era require philosophical reflection, assessment. Philosophy itself and the philosophy of history, implemented in the education system, allow to cope with many challenges, which a modern man faces during his life, as well as to comprehend, understand all the experience gained by mankind from ancient times to the present (Helskog, 2019; Robinson & Wizer, 2016). It is a platform for a qualitative evolutionary movement into the future in conditions of excessive information, limited human capabilities in full comprehension of all theoretical and practical achievements of mankind, constant lack of time and motivation problems that depress a man, disorient him in front of typical threats of modern times (Prokhorova et al., 2019).

In addition, the historical and philosophical approach to teaching disciplines in high school can be considered as a theoretical basis

for the introduction of the principles of Universal Design for Learning (UDL) into educational systems (Boothe et al., 2018; Marks et al., 2016; Novak, 2016; Robinson& Wizer, 2016). UDL is considered in modern works on problems of higher school didactics as a problem related to the globalization processes. Due to the blurring of national borders, enhanced integration between countries and, consequently, migration processes, universities are increasingly obliged to teach students from around the world, with different, sometimes incompatible worldviews caused by the historical and cultural environment of growth, under the influence of which personal qualities of applicants have been formed accordingly by university age (Byrne, 2020; Masalimova et al., 2017). The issue acquires a special meaning when joining the problem range of active processes of inclusive learning (McCarthy & Butler, 2019) historical and philosophical principle of organization of the educational environment, especially the atmosphere and model of communication between participants in the educational process, allows to approach teaching disciplines in high school in a balanced manner, on a parity basis, with the supremacy of tolerance. Under these conditions, the historical and philosophical approach to teaching is transformed into a kind of an innovative method to reach the variety of students: in a broad sense, history clearly demonstrates the doom of any interaction between people based on enmity and intransigence, while philosophy forms a special type of worldview for harmonious functioning of an individual in the paradigms of globalization and informatization.

6 Conclusion

Thus, the modern world is more than ever marked by the processes of variability, lack of stability, overloaded with the historical heritage of mankind, which in one way or another determines the nature of ontological processes of today. In particular, humanity is witnessing the phenomenon of accelerating time, which has political, spiritual, social, educational manifestations. If earlier science itself could become a determinant of social and personal development, in the information era, science can no longer be an independent foundation for guarantees of the development of the individual in its attempt to find the meaning and harmony in the wealth of existence on earth. Active application of philosophical approaches and historical rethinking, history structuring has a positive impact on the process of personal development and is most favourably formed during the transition from adolescence to adulthood, which usually coincides with the time of receiving higher education. The growing demands for technological progress are in some ways opposed to the philosophical approach to the perception of reality, because philosophy interacts more with spiritual aspects of life rather than its technocratic manifestations. However, the rapid development of the technical process against the background of the regression of human spiritual growth leads to emotional burnout, human frustration in the material, and sometimes in the age-old spiritual values, which lose relevance, when philosophy and history do not penetrate into the fundamental spheres of human life.

Therefore, it is very important to attach universal integrative importance to the historical and philosophical approach to teaching disciplines in high school. This is the meaning of rethinking history in the search for wisdom, which allows us to move forward without repeating the fatal mistakes of the past. Any university discipline has the potential for the implementation of the historical and philosophical approach, but still to different extents. If learning history and philosophy as separate university subjects has a prominal, chronologically defined nature, then the scope of the historical and philosophical approach is much wider and in fact has no restrictions, projected for lifelong learning. The historical and philosophical approach to teaching disciplines in high school is formally expressed in international policy documents on teaching in universities and colleges, preparing programs, developing specific courses and accompanying them with appropriate textbooks and manuals. Ideally, the historical and philosophical approach to learning is

further transformed into a life habit, which allows to adequately respond to all the challenges of life.

Further studies on the topic may relate to the practice of implementing the historical and philosophical approach to teaching in the context of specific specialties or fields of university or college training of students, problems that arise during teaching with active use of historical and philosophical approaches, finding out with the help of special questionnaires the results of application of historical and philosophical principles of teaching, problems of an active, interested and conscious position of the applicant in learning with historical and philosophical approaches.

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Primary Paper Section: A

Secondary Paper Section: AA, AB

THE SPECIFICS OF LEGAL REGULATION AND LAW ENFORCEMENT IN THE FIELD OF ADMINISTRATIVE LIABILITY FOR VIOLATION OF LOCKDOWN RESTRICTIONS (THE CASE OF ADMINISTRATIVE PENALTY)

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Abstract: The article considers the peculiarities of legal regulation and law enforcement in the field of administrative liability imposed for violation of lockdown restrictions. It is shown that it does not suffice to establish restrictions. The initial data for comparison were taken from open sources and processed using dialectical, systemic, formal-legal, comparative-legal methods, as well as the empirical method. Drawing on the actual analysis, the author's perspective on the role of legal regulation and law enforcement in the field of administrative liability for violation of quarantine restrictions on the spread indicators of the COVID-19 pandemic is revealed. In particular, the imposing of administrative liability at the legislative level in combination with its effective implemetation in terms of reducing the incidence.

Keywords: legal regulation, law enforcement, administrative liability, administrative fine, violation of quarantine restrictions.

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1 Introduction

At the end of 2019, an outbreak of acute respiratory disease Covid-19 caused by a novel coronavirus (SARS COV-2) occurred in Wuhan (China). Within a short period of time, the COVID-19 epidemic spread to almost all countries (World Bank Europe and Central Asia Economic Update, 2020). The infection struck more than 11 million people worldwide (Chae & Park, 2020). The impetuous spread of the new disease resulted in the fact that on March 11, 2020, the World Health Organization declared a pandemic (Starodubov et al., 2020). Such incidence of an infectious disease, which has a considerable effect on the lives of citizens, in particular on their safety, is a relatively new phenomenon for our society (Shvets, 2020).

The backlash from many countries consisted in using a combination of containment and mitigation strategies to reduce the disease outbreak. Most national response strategies include different levels of tracking contacts, self-isolation, quarantine, (Sen et al., 2020) which is a conventional practice and is still used in conjunction with other controlling measures to prevent the spread of infectious diseases, (Kiliç et al., 2020) as well as promoting health safety measures such as hand 1washing and social distancing (Bedford et al., 2020).

However, as the worldwide practice has shown, the sheer setting control on SARS-CoV-2 is not sufficient. More actions are needed to ensure compliance, including imposing the penalties for violating the restrictive procedures, etc (Kravchenko & Yusupova, 2020). The fact remains that, blocking can work out better when governments introduce penalties on those who neglect them (Chae & Park, 2020).

Given that both the probability of transmitting COVID-19 and the severity of the associated hazards and disease are high, and a government policy is in place to prevent its spread, it is critical that SARS-CoV-2 carriers are accountable, especially those who is in the close vicinity. Hence, it is possible that the infected individuals or persons who knew or had a good reason to know that they are carriers of SARS-CoV-2 act in a way that could expose others to risk (Simana, 2020).

In view of the above, it stands to reason that after the coronavirus infection had been detected, public authorities in quite a few countries got down to actively draw up and implement regulations aimed at preventing the spread of the new disease. At the same time, not only restrictive measures were adopted, but also penal procedures for violating these regulations. Legal acts imposing restrictions on the movement of citizens in public places have been introduced. Moreover, the administrative sanctions have been made part of the routine practice (Savostin et al., 2020).

In accordance with the aforementioned problem, the purpose of the study is to search out the features of legal regulation and law enforcement in the field of administrative liability for violation of quarantine restrictions on the case of different countries, to design their impact on curbing the spread of the epidemic.

2 Literature Review

Due to its relevance, the subject of the study was brought to notice of both theorists and practitioners of jurisprudence.

Having relied on the case of Ukraine, Y. I. Maslova (2020) substantiated that amendments to administrative legislation made under the influence of the Covid-19 pandemic can be considered justified, as well as the need for further eleboration of the legal regulations on this matter.

It is worth noting that the changes to the legislation of Ukraine aimed at preventing the occurrence and spread of the coronavirus disease (Covid-19), have been introduced in two stages:

1) The Verkhovna Rada (the parliamentary body in Ukraine) adopted the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine Aimed at Preventing the Occurrence and Spread of Coronavirus Disease (COVID-19)" dated March 17, 2020 No. 530-IX, which supplemented Art. 44-3 of the Code of Ukraine on Administrative Violations, namely "The Violation of Lockdown Rules of People" of the following wording: "Violation of lockdown rules of people, sanitary and hygienic, sanitary and anti-epidemic rules and norms provided by the Law of Ukraine "On Protection of the Population from Infectious Diseases", alongside with other legislation and resolutions of local government authorities regarding the control of infectious diseases – entails imposing on citizens of a fine from one to two thousand non-taxable minimum incomes and on the officials – from two to ten thousand non-taxable minimum incomes";

2) The Law of Ukraine "On Amendments to the Code of Ukraine on Administrative Offenses Aimed at Preventing the Spread of Coronavirus Disease (COVID-19)", the second part of Article 44-3 was supplemented by the following wording: "The stay in public buildings, structures, public transport during the lockdown in effect without wearing individual protective equipment, including respirators or protective masks that cover the nose and mouth, including self-made ones, will result in the imposition of a fine of ten to fifteen tax-free minimum incomes".

Thereafter, the first court rulings for violating lockdown rules followed in Ukraine. Thus, for instance, in the city of Sumy on April 1, 2020 the Zarichny district court of the city of Sumy, the man who was not wearing a mask, was held administratively liable for having violated item 2a of the Sumy Executive Committee of the City Council resolution dated March 27, 2020 No. 172 and Article 44-3 of the Code of Ukraine on Administrative Offenses, and was imposed a fine of 17 000 UAH (Judicial power of Ukraine [Internet], 2018).

Y. Kolos and D. Derkach (2020) in their study took on a comprehensive view at the issues related to the responsibility for lockdown violations with reference to the Covid-19 pandemic in Ukraine. The researchers substantiated the danger of expanding the discretionary powers of entities that have the right to draw up administrative protocols to establish the grounds for the

application of Art. 44-3 of the Code of Administrative Offenses of Ukraine with an unambiguous interpretation of the objective side of the offense under this article, as well as the uncertainty of the ratio of general and special rules in the context of comparative analysis of the arts. 42 and 44-3 of the Code of Administrative Offenses, which may pose a threat of corruption.

In Nechval's study, (2020) the procedural difficulties that arise when qualifying the violations of lockdown restrictions under the Code of Administrative Offenses of Ukraine, Art. 44-3 were shown. In particular, the article exemplifies procedural errors, entailing the release of a person from liability and the ultimate termination of proceedings the ground of the impossibility to establish all their circumstances. On the whole, the conclusion is made that the innovations tend to be positive in terms of the goal to introduce measures aimed at protecting the public health and the public order, subject to a proviso about the need to enhance the legal regulation of liability for violating the lockdown restrictions.

A. Savostin, I. Admiralova and Y. Kashkina looked into Italy's case and found that it was the first European country to impose such severe restrictions. To leave the house, you had to fill out a special form indicating the reasons for the violation of the lockdown (Savostin et al., 2020). To curb the spread of the virus, the Italian government approved a series of extreme restrictive measures regarding the movement of people and social contacts. Between February 21 and February 22, eleven municipalities in northern Italy were declared closed, that is to say people were not allowed to enter or leave the affected areas. On February 25, schools, universities and government agencies were shut in six of the seven northern regions. On March 4, these restrictions were extended to the entire territory of the country. On day 8 in March, the Lombardy region and 14 more other northern provinces were blocked (Gazzetta Ufficiale: Decreto Del Presidente del Consiglio dei Ministri, 2020).

On several occasions the outbreak control was undermined by the spread of fake news, the leakage of draft decrees and political rivalry. For example, the leak of information contained in the draft decree on the comimg closure of Lombardy (and the other 14 provinces) caused panic and confusion in the public perception of events. As a matter of fact, thousands of people opted to flee from northern to southern Italy. The said event forced the government to extend the lockdown to the entire country three days later. The severe fines were administered. Since March 11, 2020, the Italian Ministry of the Internal Affairs was daily updating daily the statistics on the number of both control and penalty sanctions for breaches of the lockdown rules. (Ruiu & Ruiu, 2020) At the same time, by Decree No. 19 dated March 25, 2020, the Government introduced the drastic changes to the system of penalties for non-compliance with measures to curb Covid-19 infection (Uslenghi & Liedholm, 2020). Fines for lockdown violations increased from 400 EUR to 3 000 EUR (Italy threatens jail for coronavirus sufferers violating quarantine, 2020).

In Spain, as of March 2020, those who breached the lockdown, received fines ranging from 100 EUR to 600 000 EUR, depending on the severity of their behavior regarding the public health (Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020).

At the time of writing the present article, there was established a liability in the United States for violating lockdown laws. However, the extent of responsibility for violating restrictions in the United States varies depending on the state. For example, in California, administrative fines for violating the nationwide mask regime of up to 100 USD for individuals and 500 USD for legal entities (Mask Mandate/Administrative Fines FAQ, 2020). In Alaska, fines amount up to 25 000 USD, in Connecticut – up to 500 USD, in Hawaii – up to 5 000 USD, in Illinois – from 100 USD to 500 USD, in Chicago – up to 7 000 USD, in Kansas – from 25 USD to 100 USD (Guide to state quarantine rules for travelers, 2020).

As the number of patients increased, many counties that adopted the COVID-19-related administrative fines began to administer their enforcement. Some counties envisage the "violation reports" before the fine is imposed, but law enforcement officials may determine that in some circumstances a report of a violation may be unnecessary or ineffective. It is critical to keep in mind that the companies are basically responsible not only for their own violations, but also for allowing such violations. Thus, while an individual may be punished for refusing to wear a face mask, a business may also be punished for committing such a violation. The essence of the regulation is that businesses need to be knowledgeable to the utmost degree and fulfill their local orders from the Department of Health and all government orders related to COVID-19. Otherwise, the business runs the risk of being fined or even closed (Saad, 2020).

In Germany, the legal basis for liability for lockdown breach is the law on protection against infectious diseases. This legal act establishes that there may be restrictions on the rights of individuals related to freedom of movement, public assembly or the inviolability of the person. Individuals who get sick or have reasonable grounds to believe that they are infected with the coronavirus must undergo the period of 14 days of self-isolation at home. The amount of the fine for non-compliance is calculated by the court taking into account the level of financial status of the guilty person, which may range from 150 to 25 000 EUR fine. Imprisonment for up to two years is also administered (Starodubov et al., 2020).

Moreover, according to the Coronaschutzverordnung in Germany, it is an administrative offense to use public transport without a protective mask. For each such violation, the legislation of North Rhine-Westphalia provides for an administrative fine of 150 EUR (Short Update: Administrative fines for infringement of COVID-19 protective rules in Northrhine-Westphalia, 2020).

Under the law of Turkey, the administrative fines are also imposed for violating lockdown restrictions. Thus, in accordance with Article 282 of the General Law on Hygiene № 1593, those who act contrary to the prohibitions prescribed by law, or who do not fulfill their obligations in the aspect of a pandemic, should be fined between 250 and 1,000 Turkish lira if they actions are not a crime. When revaluation rates are applied, the current amount of this fine for 2020 is 789-1380 Turkish liras (TRY). Failure to comply with home surveillance measures may result in administrative fines as well as facilities quarantine (General Hygiene Law numbered 1593 and dated 1930).

At the same time, according to the law provisions, administrative fines are determined by the local administrative body (Governorships and district administrations). In fact, as practice shows, the administrative fines are issued directly by law enforcement officers (police) who detect violations. However, as the General Law on Hygiene does not provide for the transfer of powers to impose administrative fines directly granted to an administrative body, the administration of such fines by law enforcement officers without legal regulation of the transfer of powers is contrary to procedure. As a result, administrative fines imposed by police officers are to be canceled (Kornar, 2020).

In France, a persistent violation of the lockdown imposed in the context of the coronavirus pandemic could result in a fine of 135 EUR to six months' imprisonment. In particular, for violating the restrictions of domestic quarantine, the minimum fine is 135 EUR. It can be increased to 375 EUR in case of non-payment or no appeal within a certain period. In case of recurrence of the violation within 15 days, the financial penalty would be 200 EUR with an increase to 450 EUR in case of timely non-payment without appeal. Following three violations in a month, a person can be fined 3 750 EUR and imprisoned for six months (Ukrinform, 2020).

In the United Arab Emirates, where a 14-day quarantine introduced for all arrivals into the country, the Attorney General ruled that those who violate lockdown requirements were liable

to criminal responsibility (Turak, 2020). According to the legislative changes that took effect on March 26, 2020, the following fines are established (in UAE dirhams): violation of mandatory hospitalization by patients who refuse to take or continue the prescribed medication, despite the instructions – 50 000; non-compliance with home quarantine instructions in accordance with the home quarantine guidelines, as well as quarantine at private facilities designated by the competent authorities, and refusal to retake the test in accordance with medical protocols or the implementation of these measures – 50 000; violation of instructions on closing of educational institutions, cinemas, gyms, sports clubs, shopping centers, open air markets, parks, cafes, malls, restaurants and other facilities or reception of clients in violation of restrictions – 50 000 and administrative closure; violations of safety measures issued by the Ministry of Health and Prevention by passengers arriving in the UAE from countries affected with the infectious disease – 2 000; non-compliance with appropriate sanitary measures to regulate markets, roads and other public places exempted from temporary closure, as well as refusal to issue an order to dispose of any items, clothing, luggage or other items that are contaminated or may be contaminated with any pathogen, if such items cannot be disinfected in the prescribed manner – 3 000; leaving the house except for vital reasons or the purchase of basic necessities – 2 000; violation of the rule on the maximum number of passengers in the car (more than three people per car) – 1 000; refusal to wear medical masks indoors to individuals suffering from chronic diseases, as well as persons with symptoms of colds and flu or unable to maintain social distance – 1 000; violation of measures for sterilization of public vehicles – 5 000; unauthorized visits to medical institutions – 1 000; refusal to undergo a medical examination on request – 5 000. That said, the fines would be doubled for those found guilty of repeat violations. The offenders would then be transferred to the Federal Prosecutor's Office for Emergencies and Crisis Situations if the violation is committed for the third time (Enforcement of law to contain the spread of COVID-19).

Along with the above, as of May 2020, during the coronavirus pandemic, the Spanish police issued 837 thousand fines ranging from 600 EUR for walking on the street or leaving the city, to 10 000 EUR for more serious violations. In Italy, local police from March 11 to May 3 registered 418,222 violations. The amount of the fine ranges from 206 EUR to 3000 EUR. In France, from mid-March to early May, 915 000 violations were registered (Ukrinform, (2020).

In Ukraine, the situation in the field of law enforcement regarding the prosecution for violation of lockdown restrictions differs essentially. As of May 15, 8 515 protocols were drawn up in Ukraine under Art. 44-3 of the Code of Ukraine on Administrative Offenses ("Violation of Lockdown Rules"), of which 2 199 were under consideration. According to the the court register, only 275 of the protocols considered were imposed a fine (Za porushennia karantynu v Ukraini oshtrafovano 275 osib). The reasons for this were diverse: the circumstances set out in the minutes were not confirmed by proper and admissible evidence; the report was not drawn up on the subject of the specified offense; the place and time of the offense were not specified; the violated norm of the law was not indicated; the qualification of the offense was incorrectly defined. That is, the country was not ready for such unforeseen circumstances, starting from the economic situation and ending with the competence of government officials (Rieznik & Polianska, 2020).

Despite a fairly good applicable doctrinal framework and prompt elaboration of details in the context of the legislator's innovations by the scientific community, there are still a number of less researched issues of administrative liability introduce amendments in this sphere.

3 Material and Methods

When looking into the subject of research, a number of methods were applied, including the dialectical method, the system method, the formal-legal method, the comparative-legal method, the empirical method. To begin with, the dialectical method was used for a comprehensive, complete, thorough analysis of the research topic to determine the limits of administrative sanctions for violating lockdown restrictions applied in different countries at a particular point in time and space. As a matter of fact, the system method hawas used to show anticoronavirus innovations in the field of administrative law in their relationship, interaction and interrelation with objectively existing reality and changes in the global multiverse of human life. Further, the formal-legal method was used to formulate the specifics of legal norms relating to liability for violation of lockdown restrictions. Finally, a comparative legal method was used to specify the features of the novelties of the administrative legislation on liability for lockdown violations in different countries.

Eight countries are taken for comparison: Ukraine, Germany, Turkey, the USA, the UAE, France, Italy, Spain.

The source data for comparison were taken from open sources.

Due to the fact that penalties are calculated in national currencies, which vary in different countries, in order to obtain more accurate data on the difference in the size of fines, we transformed the amount into a single currency for which the Ukrainian hryvnia (UAH) was chosen. The exchange rate was taken from the official website of the National Bank of Ukraine as of 28.12.2020 (Ofitsiinyi kurs hryvni shchodo inozemnykh valiut).

That being said, since the size of penalties under the legislation of Ukraine is set in the non-taxable minimum income, the non-taxable minimum was primarily translated into hryvnia on the basis of the Tax Code of Ukraine and the Law of Ukraine "On State Budget for 2020". According to paragraph 5, subsection 1 of section XX "Transitional Provisions" of the Tax Code of Ukraine, if the provisions of other laws include references to the citizens' tax-free minimum income, in that case for the purposes of their application the amount of 17.0 UAH is used, with the exception of administrative and criminal legislation qualification of administrative or criminal offenses for which the amount of non-taxable minimum is set at the level of social tax benefits specified in paragraph 169.1.1 Article 169 of Section IV of the Tax Code of Ukraine for the applicable year. In other ords, the tax-free minimum income of citizens at the level of social tax benefits is applied in terms of qualification of crimes and offenses, and not in terms of determining the amount of penalties for the offense or crime. Hence, the calculation of the fine is done with regard to the Code of Ukraine on Administrative Offenses – from the tax-free minimum income of citizens, established by law as of December 2020 in the amount of 17 UAH.

Based on the obtained sizes, two country rankings were built.

Also, the indicators of law enforcement in relation to bringing to administrative liability for violation of lockdown restrictions were analyzed.

Thereafter, the indicators on the number of COVID patients in selected countries worldwide were taken and a corresponding ranking was formed in order to further proceed with comparing the obtained data.

As the stage, all the obtained rankings were compared, drawing on which the assumptions were made regarding the impact of the said specifics of legal regulation and law enforcement in the field of bringing to administrative liability for violating lockdown to reduce the spread of the epidemic.

Drawing on the data obtained during the study using the empirical method, relevant conclusions were made, which became the basis for the proposals developed.

4 Results

As the original descriptive evidence, Table 1 shows that the specific features of the legal regulation of administrative liability, in particular, the established amounts and units of administrative fines, tend to vary in different countries worldwide.

Table 1. The amount of fine for violating lockdown restrictions by measurement units in different countries

Country	Minimum fine	Maximum fine	Currency
USA	250	10 000	USD
Germany	150	25 000	EUR
Turkey	789	1380	TRY
France	135	3750	EUR
UAE	1000	50 000	AED
Ukraine	10	10 000	a tax-free minimum income
Italy	400	3000	EUR
Spain	100	600 000	EUR

Source: (Italy threatens jail for coronavirus sufferers violating quarantine, 2020; Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020; Mask Mandate/Administrative Fines FAQ, 2020; Guide to state quarantine rules for travelers, 2020; Ukrinform, 2020; Enforcement of law to contain the spread of COVID-19, 2020; Kodeks Ukrainy pro adminstratyvni pravoporushennia vid 07.12.1984)

Thus, it is possible to calculate the minimum size of the penalty by the formula: 10*17=170 UAH, and the maximum by the formula: 10 000*17=170 000 UAH. The results obtained appear in Table 2 as follows:

Table 2. The amount of fine for violating lockdown restrictions worldwide in currency units

Country	Minimum fine	Maximum fine	Currency
USA	25	25000	UDS
Germany	150	25 000	EUR
Turkey	789	1380	TRY
France	135	3750	EUR
UAE	1000	50 000	AED
Ukraine	170	170 000	UAH
Italy	400	3000	EUR
Spain	100	600 000	EUR

Source: (Italy threatens jail for coronavirus sufferers violating quarantine, 2020; Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020; Mask Mandate/Administrative Fines FAQ, 2020; Guide to state quarantine rules for travelers, 2020; Ukrinform, 2020; Enforcement of law to contain the spread of COVID-19, 2020; Kodeks Ukrainy pro adminstratyvni pravoporushennia vid 07.12.1984)

To build the rating of countries depending on the size of penalties, we calculated the minimum and the maximum size in the same currency (UAH) at the official exchange rate of hryvnia against foreign currency. In this case, the exchange rate is rounded to the integral value and calculated with certain approximation.

The results obtained are presented in Table 3 as follows:

Table 3. The amount of fines for violating lockdown restrictions in worldwide (in UAH)

Country	Minimum fine	Maximum fine	Currency
USA	25*28=700	25 000*28= 700 000	UAH
Germany	150*34=5100	25 000*34= 850 000	UAH
Turkey	789*4=3156	1380*4= 5520	UAH
France	135*34=4590	3750*34= 127500	UAH
UAE	1000*8=8000	50 000*8= 400 000	UAH
Ukraine	170	170 000	UAH
Italy	400*34=13600	3 000*34= 102000	UAH
Spain	100*34=3400	600 000*34= 20 400 000	UAH

Source: (Italy threatens jail for coronavirus sufferers violating quarantine, 2020; Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020; Mask Mandate/Administrative Fines FAQ, 2020; Guide to state quarantine rules for travelers, 2020; Ukrinform, 2020; Enforcement of law to contain the spread of COVID-19, 2020; Kodeks Ukrainy pro adminstratyvni pravoporushennia vid 07.12.1984)

The results above give us the data to be presented in Table 4 below showing the ranking of countries with minimal fines in ascending order:

Table 4. Ranking of countries with minimal fines in ascending order

Number in the ranking of countries	Country	The amount of the fine
1	United States of America (Kansas)	700
2	Ukraine	170
3	Turkey	3 156
4	Spain	3 400
5	France	4 590
6	Germany	5 100
7	UAE	8 000
8	Italy	13 600

Source: (Italy threatens jail for coronavirus sufferers violating quarantine, 2020; Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020; Mask Mandate/Administrative Fines FAQ, 2020; Guide to state quarantine rules for travelers, 2020; Ukrinform, 2020; Enforcement of law to contain the spread of COVID-19, 2020; Kodeks Ukrainy pro adminstratyvni pravoporushennia vid 07.12.1984; Ofitsiinyi kurs hryvni shchodo inozemnykh valiut)

The ranking of countries with maximum fines in ascending order is provided below (Table 5):

Table 5. Ranking of countries with maximum fines in ascending order

Number in the ranking of countries	Country	The amount of the fine
1	Turkey	5 520
2	Italy	102 000
3	France	127 500
4	Ukraine	170 000
5	UAE	400 000
6	United States of America (Alaska)	700 000
7	Germany	850 000
8	Spain	20 400 000

Source: (Italy threatens jail for coronavirus sufferers violating quarantine, 2020; Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020; Mask Mandate/Administrative Fines FAQ, 2020; Guide to state quarantine rules for travelers, 2020; Ukrinform, 2020; Enforcement of law to contain the spread of COVID-19, 2020; Kodeks Ukrainy pro adminstratyvni pravoporushennia vid 07.12.1984; Ofitsiinyi kurs hryvni shchodo inozemnykh valiut)

As we can see after the comparison was conducted, the smallest sanctions for violating the lockdown restrictions are applied in some individual US states and in Ukraine, and the largest share is taken by Spain and Germany. In most countries, the administrative liability prevails, in the form of fines and

restriction of liberty, with fines ranging from 170 UAH, up to 20.4 million UAH. That said, in Turkey as compared to other countries, the level of the maximum administrative fine is much lower.

In addition, as we could find out from the literature review, the Spanish police issued 837 thousand fines ranging from 600 euros for walking on the street or leaving the city, up to 10,000 euros for more serious violations (Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020). In Italy, the local police registered as many as 418,222 violations from March 11 to May 3. The amount of the fine from 206 euros to 3 000 EUR (Italy threatens jail for coronavirus sufferers violating quarantine, 2020). In France, 915 000 violations were registered from mid-March to early May (Ukrinform, 2020). However, In Ukraine as of May 15, 8 515 protocols were drawn up under Art. 44-3 of the Code of Ukraine on Administrative Offenses ("Violation of lockdown rules") and only in respect of 275 thereof a decision was made to impose a fine (Za porushennia karantynu v Ukraini oshtrafovano 275 osib).

In addition, as we were able to find out from the literature, the Spanish police issued 837 000 fines ranging from 600 EUR for walking on the street or leaving the city, up to 10 000 EUR for more serious violations (Spain in absolute quarantine as coronavirus cases rise to 7,700, 2020). In Italy, local police from March 11 to May 3 managed to register 418 222 violations. The amount of the fine from 206 EUR to 3 000 EUR (Italy threatens jail for coronavirus sufferers violating quarantine, 2020). In France, from mid-March to early May, 915 000 violations were registered (Ukrinform, 2020). In Ukraine, as of May 15, 8 515 protocols were drawn up under Art. 44-3 of the Code of Ukraine on Administrative Offenses ("Violation of lockdown rules") and only in respect of 275, a decision was made to impose a fine (Za porushennia karantynu v Ukraini oshtrafovano 275 osib).

The rating of these countries according to the indicators of the spread of the epidemic proves to be somewhat different, as illustrated in Figure 1:
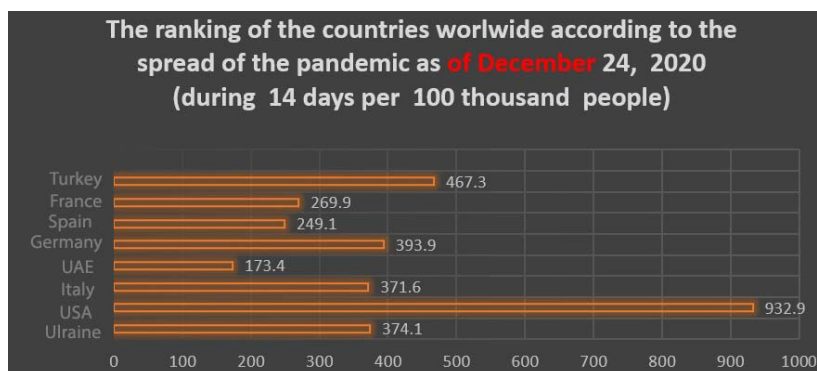
Fig. 1. The ranking of different countries worldwide according to the spread of the epidemic as of December 24, 2020 (during 14 days per 100 thousand people.)
Source: (33)

5 Discussion of the Results

Thus, in the course of our research, we found that the mildest sanctions for the breach of lockdown restrictions are exercised in some US states and Ukraine, and the toughest – in Spain and Germany. However, a study by N. Kravchenko and A. Yusupova (Kravchenko & Yusupova, 2020) "Soft" Factors in Pandemic Response: Comparative Intercountry Analysis, that had been conducted before August 6, 2020, reported that the largest fines were imposed in the United States, followed by Spain, Italy in terms of a number of punishments; the mildest sanctions for breaches are imposed in Germany. This gives grounds to conclude that the size of the sanctions had been changing during the spread of the epidemic. Thus, the proviso of S. Starodubov, V. Vladyshevska and M. Pyzhova (Starodubov et al., 2020) stands to reason warning that the size and limits of sanctions for breaching quarantine abroad is prone to change as the epidemiological situation improves or deteriorates.

An additional point is that Spain leads in terms of law enforcement in the study area, in particular instituting administrative actions. In view of the aforementioned, during the lockdown, as of early May, the Spanish police issued 837 thousand fines ranging from 600 euros for walking on the street or leaving the city, to 10,000 euros for more serious violations. Whereas in Ukraine, for example, as of May 15, 8,515 protocols were registered under the action of Art. 44-3 of the Code of Ukraine on Administrative Offenses ("Violation of lockdown rules"). That having been said, only in respect of 275 a court decision was issued to impose a fine.

Thus, the indicators of the COVID spread in countries with tougher administrative sanctions and more severe institution of administrative actions are relatively smaller. Such results give us the ground to assume that the specific features of legal regulation

and law enforcement in the field of administrative liability for violation of lockdown restrictions still affect the spread of the epidemic. This indicates the effectiveness of a collaborative quarantine program in several countries abroad.
Further, such results and our assumptions are confirmed by other studies. For example, S. H. Chae and H. J. Park (2020) in their study examined changes in the growth rate of cumulative cases that depend on the time after Bavaria imposed financial sanctions for violating the lockdown: Germany, March 15 – May 11, 2020. That is to say the growth rate decreased. Overall, the penalties for violating social distancing have a significant impact on slowing the spread of COVID-19. (Chae & Park, 2020).

In the light of the above, it is expedient for other countries, and specifically Ukraine, to adopt the best practices of Spain in terms of legal regulation and law enforcement in the field of administrative liability for lockdown restrictions violation. Such measures are claimed to ensure the rapid spreading the word about the imminent fine for lockdown violation. Added to this is the fact that this money will supply the funds to combat the virus (Starodubov et al., 2020). However, due regard should be paid to taking into account the level of economic development of each country. The bottom line still is, the size of the fine should be considerable, but viable.

That said, it is advisable to proceed with a differentiated approach to the introduction of sanctions at the angle of the offense subject. Such a stance would involve the proposed in the scientific literature delimitation of administrative liability of individuals and officials, legal entities and private entrepreneurs (Sambor, 2020).

However, it is quite likely that other factors could have their impact on the reduction of the epidemic, such as: a decrease in the number of tests for the virus, an increase in the level of the

citizens' legal awareness, and so forth. In addition, the overriding limitation of our study is the short time of its implementation, as well as the lack of more detailed information on law enforcement in the scope of administrative fines for violating lockdown restrictions in various countries.

6 Conclusions

Based on the above studies, the following conclusion can be drawn: the issue of administrative liability for violating the lockdown restrictions present a major concern and are relevant not only for Ukraine, but also for many countries overseas. Nevertheless, the preliminary studies of the scholars on this matter are virtually lacking.

It was found that in against the backdrop of the rampant spread of COVID-19, the policy of each and every state should evolve in the direction of elaborating more severe administrative penalties and ensuring the most effective implementation of legislation in this area.

Drawing heavily on the regulatory analysis in the field of counteracting the spread of the COVID-19 epidemic, the scholarly contributions representing the insights of experts and scientists, the theoretical and methodological background of the study is formulated. Furthermore, the author's perspective of the role and function of regulation in the field of administrative liability for violation of lockdown restrictions, as well as their features, was highlighted. In particular, the countries with high COVID-19 morbidity rates are encouraged to learn from Spain's best practices in regulating and implementing the administrative liability for violating lockdown restrictions. It stands to reason that the introduction of tougher administrative fines can flatten the curve of COVID-19. On the same note, it is advisable to enshrine at the statutory level the most severe amount of the fine, taking into consideration the specifics of the country's economic development wherein it will be introduced. The size of the fine should not only be high, but also take account of the financial situation of individuals and legal entities in these countries. Furthermore, each of the countries should make available the relevant levers to law enforcement agencies in this area and ensure the factual imposition of fines on violators, apart from their being formally present in the legislation.

Our findings are relevant to issues regarding the COVID-19 countermeasures. the proposed model of state policy is expected to effect the reduction of morbidity rates in Ukraine and worldwide. The best practices and the array of applicable data presented can serve as a guideline for future elaborations in this area, as well as for the development of an effective model of public policy in the area of counteracting the incidence of the pandemic in Ukraine and the worldwide.

Finally, we consider it expedient to note that the issue of legal regulation and law enforcement in the field of administrative liability for lockdown violations calls for further research in the direction of studying the other countries' practices worldwide.

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Primary Paper Section: A

Secondary Paper Section: AD

CRIMINAL PROVISION OF MEDICAL SECRET PROTECTION IN COVID–2019

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Abstract: This article analyzes the regulatory framework of the Ukrainian Institute of Medical Secrecy. The purpose of the article is to analyze the Institute of Medical Secrecy and its confidentiality, its ethical and legal aspects, legal liability in case of violation of its observance, as well as proposals to improve the legislation of Ukraine in the relevant section. In writing the article, general scientific methods of analysis and synthesis, method of generalization, logical and system - structural analysis, monitoring methods, method of generalization, dialectical and system - structural analysis were used. At the same time, the issue of liability of medical workers for offenses committed or committed in the course of their professional activities is no less relevant.

Keywords: medical secrecy, institute of medical secrecy, criminal legislation, moral and ethical aspects, legal responsibility, medical activity.

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1 Introduction

There are many questions about this situation, so this article analyzes the current national legislation on the prevention of the spread of COVID-19 and the processing of personal data during isolation. Given the danger of the spread of acute respiratory disease COVID-19 caused by SARS-CoV-2 coronavirus in Ukraine, special attention began to be paid to various issues in the field of health care, including the activities of health workers, as well as the procedure and conditions of medical care. Information has always been and remains one of the greatest values. And the weaknesses of a person, obviously, no one knows better than the doctor who comes. From time immemorial, doctors have done everything to ensure that information about the patient does not fall into the wrong hands.

The basic Ukrainian law, namely the Constitution (Article 3), states that a person, his life and health, honor and dignity, inviolability and security in Ukraine are recognized as the highest social value and due to the need for proper legal protection the right to medical care is a medical secret (The Constitution of Ukraine: official, 2019).

In modern Ukrainian society, special attention is paid to ensuring and protecting the rights, freedoms and legitimate interests of man and citizen. This issue is relevant in medical practice. In a broader sense, medicine not only promotes the rights of patients, but in this context it is necessary to consider the institution of medical secrecy, define its concept and ensure effective regulation of relations arising in the field of health care.

The coronavirus disease 2019 (COVID-19) pandemic has required health care systems to radically and rapidly rethink the delivery of care. One of the most remarkable ongoing changes has been the unprecedented accelerated expansion of telehealth. The pandemic may provide the incentive needed to realize the potential of telehealth. Nevertheless, concerns remain that safety and privacy may be compromised by rapid deregulation, despite data, although limited, regarding good overall quality (Noel et al., 2020). In studies conducted before the COVID-19 pandemic, patients reported high levels of satisfaction (Kruse et al., 2017). One of the most significant changes for telehealth related to the COVID-19 pandemic has been payment parity between telehealth and in clinic care. Previously, many states required

insurers to cover telehealth but did not stipulate payment parity (State Telehealth Laws and Reimbursement Policies Report, 2020).

Low reimbursement for telehealth was viewed as a critical disincentive. Without payment, it would be difficult for clinicians to afford to provide the service, despite data from previous studies suggesting clinicians were broadly supportive about its use (Henry et al., 2017). Recognizing the need for incentives, some private payers and Medicaid programs announced payment parity for telehealth for the duration of the pandemic (COVID-19 telehealth coverage policies [Internet], 2020). For instance, for a routine primary care visit, such as for a 20- to 30-minute visit with a physician, Louisiana Medicaid reimbursement for 2020 would be $33.95 for a telehealth visit (Current Procedural Terminology [*CPT*], code 99443), compared with $62.65 for a physical visit (*CPT,* code 99214). This payment parity is a necessary step, as there has been a substantial shift in some clinics, increasing the proportion of telehealth visits from 10% before the pandemic to more than 90% telehealth work during the pandemic (Lonergan et al., 2020).

In response to the pandemic, the Office for Civil Rights at the Department of Health and Human Services issued a notice of enforcement discretion, stating that it will not impose penalties for HIPAA (Health Insurance Portability and Accountability Act) violations that occur during the good faith provision of telehealth during the COVID-19 emergency (Office for Civil Rights (OCR), 2020). In response to COVID-19, some states are relaxing or eliminating certain licensure requirements. This trend has enabled some clinicians from one state to care for patients in a different state. Because these regulations create a more permissive environment, however, mechanisms are required to ensure verification of clinicians. For instance, as in the insurance and finance industries, recorded calls could be used to audit and monitor the quality of care (which some platforms have already incorporated), although provisions to guarantee patient privacy and confidentiality would need to be established (Telehealth after visit summaries, 2020).

2 Methods and Materials

General scientific methods of analysis and synthesis, method of generalization, logical and system - structural analysis, methods of monitoring, expert evaluation and others were used. The method of generalization was used in the formation of the conceptual apparatus. Dialectical and system - structural analysis was used in the study of the world experience of medical secrecy in modern conditions.

Factor, the method of statistical and expert assessments was used in the analysis of the legislative and nominative base. Methods of qualitative data processing, which include statistics of medical secrecy, various methods of classification, differentiation, categorization based on certain characteristics and criteria. Empirical research method, which is a way to obtain scientific facts during the observation of medical secrets, diagnosis, experiment, praximetric methods, etc.

Theoretical research method that allows to identify the functional relationships between the studied phenomena and the processes of the studied article. The method of expert assessments, which allows to obtain prognostic information of forensic actions on the basis of identifying and processing the opinions of a group of experts on future events. The method of the commission, which is that on the basis of a set of personal opinions of experts and scientists are selected the most objective and reasonable actions for the article under study; the method of heuristic forecasting, which is distinguished by a clear theoretical justification, clarification of the competence of experts and the presence of an algorithm for processing the information obtained in this article; method of generalization,

which consists in generalizing the independent characteristics of the essence of the research topic, their analysis and synthesis, when rejecting everything insignificant.

Prognostic method as a further study of the topic of the article, the discovery of objective truth. In particular, the article is used: information method, which allows to provide fast and effective information on medical secrecy from various sources on selected issues in the scientific literature, periodicals, the Internet.

3 Results

For the first time, the provision of medical secrecy was clearly stated in the Hippocratic oath: "No matter what treatment - even without treatment - I have never seen or heard anything known in human life. It should never be disclosed, I perceive it as a secret" (The Constitution of Ukraine, article 32) prohibits interference with family and private life, and the collection, storage, use and dissemination of confidential information about a person without his consent is not permitted, except as provided by law and only for security, economic prosperity and human rights).

On a concordance with a doctor a patient expects from a medical worker the observance of confidentiality of information, medicare got during a grant results of inspection, tests of laboratory and diagnostics in the presence of other patients without the inspection of patients in a chamber. After an operation a surgeon provides information about an operation and prospects of recovery regardless of wishes of patient, his family and friends. A medical personnel that answers on phone calls provides information to the people that appear family members. Many televisional shows show confidential and medical information, the same in contempt of ethic and moral principles. On the whole such cases today are more and more.

Most doctors consider however, that opening of information without the consent of patient is direct violation of right on the detail of medical information. Today mental and ethical norms are envisaged in the "Oath of doctor", ratified by Decree of President of Ukraine N 349 from 15.06.1992, in that to "keep a medical secret, but not use them in harm a man during all life". To our opinion, under a medical secret it follows to understand information about a medical review, his results and illness, intimate and domestic parties lives of patient, that is not subject to announcement. For the illegal disclosure of medical secret criminal responsibility is envisaged in article 145 of Criminal Code of Ukraine in accordance with that: "Intentional disclosure of medical secret by a person that she became in connection with implementation of professional or official duties, if such act entailed heavy consequences, - to fifty untaxed minimums of acuestss of citizens are punished by a fine or by social works within two hundred forty hour, or privation right hold a certain position or carry on certain activity within three year, or correctional work within two year".

A patient has a right on the secret of state information and diagnosis that it is set him at an inspection the health. In obedience to article 40 of Law of Ukraine "Bases of legislation of Ukraine are about a health protection": "Medical workers and other persons, that in connection with implementation of professional or official duties it was known about illness, medical inspection, review and their results, intimate and domestic parties of life of citizen, have no authority to divulge these information, except envisaged by the legislative acts of cases". Therefore a doctor is under an obligation to respect a medical secret and divided by her only on the consent of patient. Will consider and will do the analysis of normatively-legal documents (table.1).

Table 1. The right and provision of information about the patient without his consent or the consent of his legal representative

Sequence number	Name	Content
1.	Constitution of Ukraine	In the interests of national security, economic prosperity and human rights, territorial integrity or civil order, to prevent riots or crimes, to protect public health, to protect the reputation or rights of others, to prevent the disclosure of confidential information or to maintain authority and impartiality of justice "(Part 2 of Article 32, Part 3 of Article 34);
2.	Criminal Code of Ukraine	Article 135, 142
3.	The Civil Code of Ukraine	Parents (adoptive parents), guardian, trustee have the right to information about the health of the child or ward "(Part 2 of Article 285).
4.	Family Code of Ukraine	«The results of the medical examination are secret and are communicated only to the groom" (Part 4 of Article 30).
5.	Law of Ukraine of October 2, 1992 (as amended on January 13, 2011, Article 21, Part 2)	« Confidential is information about an individual ... Confidential information may be disseminated at the request (consent) of the person concerned in the manner prescribed by him in accordance with the conditions provided by him, as well as in other cases specified by law.
6.	Bylaws: On the oath of a doctor: Decree of the President of Ukraine of 15.06.1992 (paragraph 1, parts 3, 4)	Keep medical secrecy, do not use it to the detriment of man (paragraph 3); not to hide the truth if it will harm the patient (item 4) ".
7.	Code of Ethics of the Doctor of Ukraine	"Medical information about the patient may be disclosed: 1. In case of written consent of the patient; 2. In case of a motivated request of the bodies of inquiry, investigation, prosecutor's office and court, sanitary and epidemiological service; 3. If secrecy significantly endangers the health and lives of patients and / or others (dangerous infectious diseases); 4. In case of involvement in treatment of other specialists for whom this information is professionally necessary.

A careful analysis of the legislation reveals cases where medical secrecy may be disclosed without the consent of the person or his or her legal representatives, in the interests of national security, territorial integrity or public order to prevent disorder or crime, protect public health, protect reputation or rights. Let's consider analysis of regulations on criminal legal protection of medical secrecy (table 2).

Table 2. Analysis of regulatory provisions regarding criminal protection of medical secrets

Article of the Criminal Code of Ukraine	Kind of a mystery	A sign of what kind of corpus delicti is secrecy
Article 111 "Treason" 1. Treason, ie an act intentionally committed by a citizen of Ukraine to the detriment of sovereignty, territorial integrity and inviolability, defense capability, state, economic or information security of Ukraine.	State secret State secret is information in the field of defense, economics, science and technology, foreign relations, state security and law enforcement	Basic
Article 132 "Disclosure of information on a medical examination to detect infection with human immunodeficiency virus or other incurable infectious disease" Disclosure by an official of a medical institution, an auxiliary employee who has obtained information on his own initiative, or a medical professional conducting a medical examination of a person to detect infection with human immunodeficiency virus or other incurable infectious disease that is life-threatening, or acquired immunodeficiency syndrome (AIDS) and its results, which became known to them in connection with the performance of official or professional responsibilities	Medical secrecy Information, information about: 1) conducting a medical examination of a person to detect infection with human immunodeficiency virus or other incurable infectious disease that is life-threatening, or acquired immunodeficiency syndrome (AIDS); 2) the results of such a review	Basic
Article 145 "Illegal disclosure of medical secrets" Intentional disclosure of a medical secret by a person to whom it has become known in connection with the performance of professional or official duties	Medical secrecy	Basic

Others to prevent the disclosure of information obtained in secret, or to preserve the authority and impartiality of justice (part 2 of Article 34 of the Constitution of Ukraine), during the medical examination of brides who are obliged to inform each other about their health (Article 30 of the Family Law of Ukraine); when organizing the provision of psychiatric care to a person suffering from a severe mental disorder (part 4 of Article 6 of the Law of Ukraine "On Psychiatric Care"); when providing assistance to a minor under 14 years of age, and to a person who has declared impossibility to comply with the established law, to notify his parents (adoptive parents) or their legal guardians (part 2 of article 285 of the Civil Code of Ukraine; part 2 of article 39, part 1 Article 43 of the Principles of the Law of Ukraine on Health Care); when conducting an investigation, preliminary investigation or trial at the written request of the investigator (investigator, prosecutor or court) (section 4 of Article 6 of the Law on Psychiatric Care of Ukraine; 5 Article 14 of the Law of Ukraine "On measures to combat trafficking in drugs, narcotics, psychotropic drugs and precursors and their abuse", (http://zakon.rada.gov.ua) if emergencies and conditions threatening the health of the population, hygiene and health from diseases, in order to inform members, institutions and agencies of the State Sanitary and Epidemiological Service (Section 2 of Article 26 of the Law of Ukraine on Infectious Diseases, Section 6, Section 1 of Article 7 of the Ukrainian Law "Ensuring the Health of the Epidemic and the Population Epidemic"); if there is a risk of spreading infectious diseases, avoid mandatory medical or community vaccination testing from the established program to eliminate businesses, institutions and organizations at the request of relevant government officials on sanitation and hygiene, staff, education and church attendance of infectious diseases, patients with severe infectious diseases or people who have been in contact with such patients, as well as those who have undergone a mandatory medical examination or vaccine, the list of which is established by the central regulatory authority in the field of health (section 2 of Article 26 of the Ukrainian Law on Protection of Citizens from Infectious Diseases; paragraph 5, part 1 of Article 7 of the Law of Ukraine on hygiene and social epidemic); if HIV (human immunodeficiency viruses) is detected in children under the age of 18, as well as in persons declared incapacitated, inform the parents or other legal representatives of these persons (section 2 of Article 8 of the Ukrainian Law on Combating the Spread of HIV / AIDS and the

Legal and Social Protection of People Living with HIV"; (On counteracting the spread of diseases caused by human immunodeficiency virus (HIV) and legal and social protection of people living with HIV: Law of Ukraine of December 12 ,1991) a patient with tuberculosis from an isolation ward, a prison where a patient was serving a sentence to inform him about the state of health and the need to continue treatment in the institution or remain in custody, as well as that from the medical and medical card the group of his death is the competent authority for tuberculosis prevention (section 2 of Article 18 of the Ukrainian law "Tuberculosis Control").

Today, the condition of the coronavirus raises a number of questions in the media: How to write about patients 325 Legal Scientific Electronic Journal? Can the patient's name and photo be identified? What information can be provided and what cannot? In such cases, it is important to remember that access to information about a person's health is limited. It cannot be collected and used simply for curiosity or to add details.

Collection and illegal disclosure of human life may be subject to liability under Art. 182 of the Criminal code of Ukraine (Secret offenses). At the same time, Part 1 of Art. 29 of the Law of Ukraine "On Information" "allows the transfer of information with limited access, if necessary for the public, it is a matter of public interest, and the public's right to know this information exceeds the risk existing as a result of its distribution".

On April 18, the law "On Amendments to the Law" on Protection of Citizens from Infectious Diseases "on Prevention of Coronavirus Infection (COVID-19)" came into force. By law, during the average period of COVID-19 and no later than 30 days from the date of cancellation, individual data may be processed without the consent of that person (including information relating to health, hospitalization or hospital behavior, isolation, last name, first name, name of the person, date of birth, place of residence, occupation (education) and control of the spread of coronavirus.

The use of these data is allowed only for anti-epidemic measures, and within 30 days after the end of quarantine, the data are subject to depersonalization or destruction. "A quarantine order may specify a special procedure for recording

and exchanging information on cases during quarantine. Those guilty of improper disclosure will be prosecuted in accordance with the law", the document states.

Some journalists believe that patients' names and other personal data are socially important information and can therefore be freely disseminated. But such a statement is not true. Reference to the public importance of personal data is not a universal rule, but an exception that only exempts from liability in certain cases.

For example, reporting a specific patient who avoids observation or poses a threat to society will prevent the spread of infection. At the same time, it should be borne in mind that impersonal information that does not contain personal data and does not allow the patient to be identified may be placed in the media and not violate the law.

4 Discussion

Some of the concepts and ideas contained in this article are based on discussions and interviews with Sanjay Arora, ECHO Institute; Elliot Fisher, Dartmouth Institute for Policy and Clinical Practice; Matthew Handley, Kaiser Permanente, Washington; Dr. Judd Hollander, Thomas Jefferson University, Sydney Kimmel School of Medicine; Surerson Matin; Rahul Sharma-Will Cornell, Presbyterian Medical Center of New York.

International experience should also be taken into account in the study of the Institute of Medical Secrecy. Many experts see Germany as a model for the organization of health care and regulatory support for the Institute for Medical Confidentiality. According to the Constitution, Germany is a federal state and defines certain rights as territorial units (land) and the state as a whole. Medical legislation for which federal and state standards exist includes: measures against particularly dangerous infections; admission to medical activities; drug and drug trafficking, etc." (Beske & Hallauer, 2012).

O. Makhnik, analyzing the history of German legislation on medical confidentiality, argues that German law prohibits physicians from disclosing information entrusted to them in the performance of their duties. Professional responsibilities. When a doctor is called as a witness, he has the right to refuse to testify if the patient he treated did not give him permission to do so (Makhnik, 2018).

The COVID-19 crisis is a typical example of the impossibility of a single global technological solution to this problem. To increase the acceptability of digital technologies, it is necessary to take into account various cultural, moral and religious characteristics of the user. If, in the current state of emergency, priority is given to the collective benefit of health and local social order, digital measures can be intrusive and violate people's freedoms. In some countries, strong digital disparities persist to this day, and vulnerable populations may not be taken into account when implementing digital approaches (Mackert et al., 2016).

In Singapore, a program called TraceTogether was used to monitor patients infected with COVID-19. Based on Bluetooth alarms, Singapore health authorities can monitor and notify people if they have been in contact with a patient with COVID-19 (Payments News & Mobile Payments Trends, 2020). This patient monitoring system can be useful for monitoring diseases and managing disease epidemics; however, it is not available in European countries due to individual data protection laws. France has developed CoronApp based on similar standards. (Aron, 2020) People should sign up for the program and provide information about their health and symptoms. An hourly updated geolocation system is used to track this information. Royal College of London has developed the COVID Symptom Tracker program to help patients manage their symptoms (Jee, 2020). The application has become so popular that it is now used in the United States. In addition to its personal preferences, the

program can be used to study the epidemiology of COVID-19 for research purposes.

Encouraged by the European Commission, an unprecedented consortium of eight giant telecommunications companies recently agreed to share aggregate and anonymous customer location data to track their movements and activities. Despite the availability of privacy-based proximity monitoring technology, such as the proximity monitoring protocol, this violates a number of data confidentialities (Abeler et al., 2020).

In telemedicine, the problem of implementing existing systems in most cases depends on governments, (Keesara et al., 2020) as billing systems need to be adapted. (Hollander & Carr, 2020). Telemedicine counseling should also ensure patient safety in terms of data protection. It is therefore necessary to ensure close cooperation between different actors, such as health professionals, health companies and health policy (Hollander & Carr, 2020).

Digital decisions must be less clear and used by people with the low level of literacy or separate sub-groups, such as minorities, people years old, or by people that live in rural locality or districts with the low level of acuests (Nguyen et al., 2017). On all these reasons digital approaches can be perceived very differently, when they are used in areas with the high, middle or subzero level of acuests or in individualistic and collectivism countries (Ferretti et al., 2020).

5 Conclusions

It is suggested that Ukrainian legislators learn from the German experience and take the following measures: introduction of compulsory health insurance, which would increase social guarantees and insurance coverage for Ukrainian citizens; disclose details of the responsibility of persons who violated the requirements of medical secrecy for the patient; improve the procedures for documenting the patient's medical consent. In many countries, the United States has a model of democratic principles that respects the rights and legitimate interests of citizens. This country is characterized by clear guidelines for the support and development of private medicine. According to the American researcher of drug information JW Berg, the protection of confidentiality varies greatly from country to country. Many states have broad privacy laws, and some control the disclosure of medical information by developing detailed rules that cover everything from information about a specific disease to autopsy reports. Some countries are reluctant to introduce rules that require general confidentiality and simply provide for certain exceptions at the legislative level, recognizing that the protection of medical information under common law is adequate.

The studied American experience of the Institute of Medical Secrecy will be of great benefit to Ukraine (obtaining complete and accurate information about the state of health of patients) and its future prospects for such reasons as the phenomenon of "truth in the eyes" and its future prospects. As we can see, at this stage of development in Ukraine, medical confidentiality is ensured by moral standards, not legal guarantees. Because, Art. 145 (4) of the Criminal Code of Ukraine, according to which the responsibility for illegal disclosure of medical secrets in Ukraine is almost not responsible. In recent years, doctors and other health professionals in Ukraine have been prosecuted for divulging medical secrets. However, today, due to coronavirus disease in general in the world, and especially in Ukraine, many medical professionals are responsible for the disclosure of medical secrets. Therefore, the knowledge of lawyers and doctors about the moral and legal aspects of medical confidentiality is very important. In our opinion, the reasons for violating medical secrecy are ignorance of the law and misunderstanding of the harm caused by violating the principle of confidentiality. Vacancies for the training of doctors should be filled during the university, later renewal courses and scientific conferences.

It is necessary to agree with experts who seek to create and adopt a Ukrainian Medical Code, which will address in detail the problem of medical confidentiality. This would probably increase the efficiency of the institute without fear of future mistakes. Due to the effectiveness of judicial practice in our country, there are some shortcomings in the legislation, so we propose to improve the criminal law: to amend the laws of Ukraine, which include the definition of complete "medical secrecy" (Article 40 "Basic Principles of Ukrainian Law on Health" amendments to Article 145 of the Criminal Code of Ukraine, increase in the amount of the fine for illegal disclosure of medical secrets.

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EXPERIENTIAL APPROACH IN FUTURE TEACHER TRAINING FOR WORK WITH CHILDREN IN THE CONTEXT OF PRESCHOOL INCLUSIVE EDUCATION

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Abstract: The development of inclusive preschool education in Ukraine largely depends on the professionalism of preschool teachers. Research shows that their practical training for work with children in an inclusive environment is insufficient. One of the effective ways to solve this problem is an experiential approach in future teacher training for work with children in the context of inclusive preschool education. Therefore, the objective of our study is to empirically test the proposed experiential approach, which involved teaching students through practical experience according to the Pfeiffer's model. The experimental group received practical training according to the above experimental method; the control group was trained according to the traditional one.

Keywords: Experiential education, Practical training of teachers, Inclusive preschool education, Educational coaching, Learning styles and techniques
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1 Introduction

There has been a significant development of inclusive education in recent years. According to the data of the Ministry of Education of Ukraine, (Ministry of Education of Ukraine, 2020) 4,681 pupils with special educational needs receive education in preschool institutions of the country. This is not, however, enough to solve the existing problems of inclusive preschool education, given that there are more than 165,000 children with disabilities in Ukraine.

It should be noted that the uniqueness of the preschool period of education is the nature of development of children of this age, which should be reflected in approaches to their education, in the organizational structure of the educational institution, as well as in training educators and teachers (Odom et al., 1998).

Reforming the system of institutional care and education of children, especially in relation to inclusive education in Ukraine is based on European values and principles, and is recognized as one of the most important priorities of state development (European Association of Service providers for Persons with Disabilities, 2015).

Despite the organizational and practical efforts, inclusive education in preschool educational institutions of Ukraine requires adaptation of education and training programs to the needs and interests of children with special needs, as well as organization of opportunities for active participation of all children — both children with typical development and children with special needs — in classes that take place in their general kindergarten group.

Our observations indicate a low level of professional training of young specialists — teachers of preschool educational institutions. Especially in terms of their activities under the conditions of inclusion we note the weak practice orientation of graduates of higher educational institutions (HEIs) of III and IV levels of accreditation. When these specialists come to the preschool establishment, they are not ready to work, they are not familiar with the content of the new programs because too little hours are allocated for their practical training. Their learning style is overly theoretical, while training and internships are mostly formal, without sufficient systemic connection of their practical actions with awareness, analysis of achievements and mistakes, and creative search for ways to improve their competencies. These facts indicate the urgency of improving the training of teachers in Ukraine who are able to work in preschools in an inclusive environment.

Inclusive development in early childhood is one of the current problems. Its solution largely depends on the quality of training of teachers of preschool establishments. In this complex process, such issues as the quality of training of preschool teachers, the ratio of care and education in the structure of their activities, the importance of innate qualities (the ability to value children and interact with them), on the one hand, and competencies obtained during training — on the other, lack sufficient scientific justification. Researchers note that even developed countries allocate less financial and human resources for training of preschool teachers than for training of primary and secondary school teachers (Moran, 2014).

One of the significant factors that reduce the quality of training of preschool teachers at the Faculties of Pedagogy of Ukrainian HEIs is that they are taught by teachers who have no experience of educational work with preschool children. Given the urgency of this problem, on the one hand, and the lack of developed approaches to its solution, we set the objective to empirically test the proposed experiential approach in future teacher training for work with children in the context of inclusive education.

2 Literature Review

While developing the content of experimental methods of practical training of students for pedagogical activity under the conditions of inclusion, we carried out the analysis of the relevant references. This is about a general pedagogical approach with the conditional name "learning by doing" developed in, (Dewey, 1995) which was later called "experiential learning" in American pedagogy, i.e. learning through practical experience, or Kolb's (Kolb, 2015; Kolb, 2017) learning models.

We should note that experiential learning belongs to such a broader pedagogical approach as constructivism, which is based on the works (Vygotsky, 1960; Piaget, 1953). The essence of the constructivist approach is to create such learning conditions when students can independently construct the development of their own competencies based on gaining some practical experience directly in real professional activity or in specially created (simulated) quasi-professional activity. In this way, students internalize, i.e. practically acquire the necessary competencies, and not memorize them only theoretically (McLeod, 2019).

An important theoretical basis of our study was the work (Kolb, 2017) on the model of acquiring new experience, which is based on the assumption that the information in the educational process can be collected in two mutually exclusive ways: through particular experience, on the one hand, and abstract conceptualization — on the other. A reaction to information can be represented in a similar way. Reflexive observation at one pole, and active experimentation — at the other. The combination of the above variables makes up four stages of the learning process: 1) gaining experience; 2) observation and reflection; 3) abstraction and theoretical generalization; 4) experimental verification and application of the acquired knowledge in practice. The learning process can start at any stage and continue cyclically until the necessary competencies are developed. We should note that Kolb's (Kolb, 2015; 2017) model is based on the central principle: direct particular experience is the basis for observation and reflection. The four stages in this model are not a circle, but a spiral, where a particular personal experience leads to reflections, abstractions

and assumptions that require active experimentation and verification (confirmation or refutation), i.e. obtaining a new experience.

The development of ideas for building an optimal learning style is covered in the works (Li et al., 2016; Thorne & Mackey, 2007; Morrison et al.,2006; Hawk & Shah, 2007). In our opinion, the most adapted method of teaching students is the method of determining the learning style, (Honey & Mumford, 2006) where was argued that learning should be based on the development of the ability for each learning style to successfully pass all stages of the cycle.

It is important to note that active reflection and application of knowledge positively distinguish experiential learning from ordinary "practical learning". In this sense, we should pay attention to the characteristics of experiential learning, (Beames &Brown, 2016) which we used in the design and organization of our study.

3 Methods

The object of our study was students of 2nd and 3rd year of study majoring in 012 Preschool Education, who underwent internships in preschool inclusive educational institutions during the 2018-2019 school year. A total of 95 students were involved in the empirical part of the experiment. We determined the size of a representative sample using an online sample calculator. According to the results of calculations, for the general population of N=95, the level of confidence probability p=95% and with a confidence interval of error of Δ=±0.05, the sample should equal to n=75÷76 people. It is this number of students that formed the experimental and control groups of 38 people each.

Achieving group homogeneity was based on the following criteria of practical training of students: 1) the ability to identify special needs and abilities of children; 2) the ability to adapt and modify the content of curricula and programs to the special needs of children; 3) the ability to use auxiliary learning technologies, in particular differentiated teaching methods; 4) the ability to work in a team of diverse specialists; 5) the ability to interact with parents who have children with disabilities.

We determined the levels of practical training of students in both groups (experimental and control) after the experiment by summarizing two evaluations: scores of the internship supervisor from an inclusive preschool establishment, and scores for the students' defence of internship results by members of the Graduation Department.

We carried out the evaluation in the ECTS system, (European Commission, 2020) which was translated into a four-level quality scale. The high level of practical training corresponded to Level A — excellent (90-100 points); higher than medium — B and C (75-89 points), the medium level was correlated with D

and E (60-74 points), the low level corresponded to FX and F (1-35 points).

We carried out the experiment according to the scheme "Before-after with the control group", i.e. the evaluation was performed before and after the internship of both groups. The experimental group underwent practical training according to the experimental method, the control group — according to the traditional one.

We used the Pfeiffer's (Pfeiffer, 1998) model in the organization of practical training of students. We adapted this model taking into account the specifics of practical training of students in preschool educational institutions in the context of inclusion.

4 Results

To evaluate the results of the experiment, we conducted two sections of the levels of practical training of students for work with children in an inclusive environment: before the experiment and after the experimental actions, which allowed comparing the results and drawing appropriate conclusions.

Table 1 shows the results of evaluation of the levels of training of students of the experimental and control groups before the experiment.

Table 1. Levels of practical training of students before the experiment

Levels of training based on evaluation results	Experimental group		Control group	
	People	%	People	%
High level	6	15.79	5	13.16
Higher than medium	10	26.31	12	31.58
Medium	17	44.74	15	39.47
Low	5	13.16	6	15.79
Total:	38	100	38	100

According to Table 1, in the experimental group of 38 people we found 6 people (15.79% of the total number of groups) with a high level of practical training, 10 people (26.31%) had higher than medium, 17 persons (44.74%) had medium level, while 5 persons (13.16%) had low level.

The control group students had the following indicators: 5 students had a high level (13.16%), 12 students — higher than medium (31.58%), 15 students had a medium level (39.47%), while 6 students had a low level (15.79%). Comparison of the shares of students according to the levels of practical training of students of the experimental and control groups for the experiment showed no significant difference between them (Figure 1).

■ Experimental group   ■ Control group
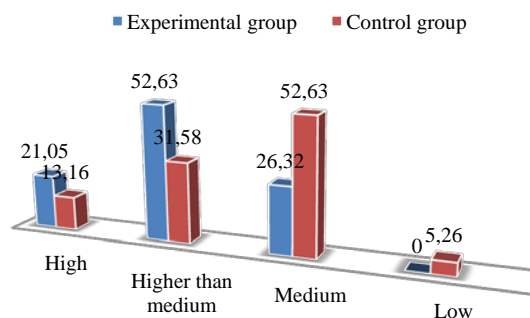
Figure 1. Comparison of the shares of students of the experimental and control groups with the relevant level of practical training

Since the results of the experiment are presented on an ordinal scale, it is advisable to use Pearson's χ2-test to determine a statistically significant coincidence or difference between the experimental and control groups.

Comparing the empirical and critical values of the χ2-test, we can conclude that there are no differences between the experimental and control groups before the experiment:

$\chi2\ emp. = 0.64 < \chi2cr0.05 = 7.82$

After the experiment, we carried out a re-evaluation of the levels of practical training of students of the experimental and control groups. Table 2 presents the results of this re-evaluation.

Table 2. Levels of practical training of students after the experiment

Levels of training based on evaluation results	Experimental group		Control group	
	People	%	People	%
High level	8	21.05	5	13.16
Higher than medium	20	52.63	12	31.58
Medium	10	26.32	16	52.63
Low	-	-	5	5.26
Total:	38	100	38	100

According to Table 2, we found 8 people (21.05% of the total group) with a high level of practical training, 20 people (52.63%) had a higher than medium level, while 10 people (26.32%) had a medium level after the experiment in the experimental group of 38 people. We observed high and higher than medium levels in a total of 28 students, which was 73.78%. In addition, there were no low-level students in this group (Figure 2).
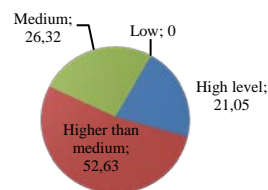
Figure 2. Levels of practical training of students of the experimental group after the experiment (in %)

The control group indicators were as follows: 4 students had a high level (10.53%), 12 students had a higher than medium level (31.58%), and the total high and higher than medium level was 42.1%. The medium level was found in 20 students (52.63%), 2 students (5.26%) had a low level (Figure 3).
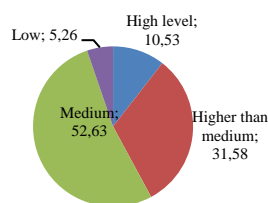
Figure 3. Levels of practical training of students of the control group after the experiment (in %)

Comparison of students' shares by levels of practical training of experimental and control groups showed a significant difference between them. The number of students in the experimental group with a high level is twice the number of students of the same level in the control group (Figure 4).
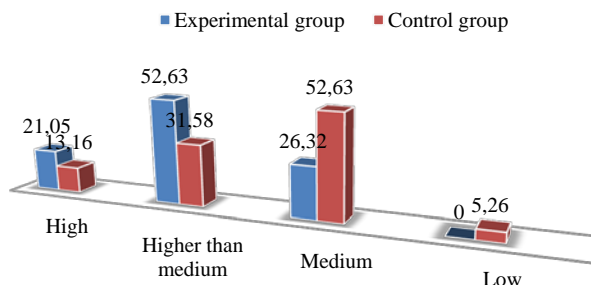
Figure 4. Comparison of levels of practical training of students of experimental and control groups after experiment (in %)

Calculations of the χ2-test after the experiment indicate a significant difference between the experimental and control groups:

$\chi2\ emp. = 16.03 > \chi2cr0.05 = 7.82$

To better understand the results of the experiment, we analysed the changes that occurred in the experimental group. Table 3 shows the results of assessing the levels of training of students in the experimental group before and after the experiment.

Table 3. Changes in the levels of practical training of students in the experimental group

Levels of training based on evaluation results	Experimental group (before the experiment)		Experimental group (before the experiment)	
	People	%	People	%
High level	6	15.79	8	21.05
Higher than	10	26.31	20	52.63
medium				
Medium	17	44.74	10	26.32
Low	5	13.16	-	-
Total:	38	100	38	100

Analysing the data in Table 3, we can describe the changes and find that the most significant changes occurred in a subgroup of students with higher than medium level of practical training as a result of the experiment. While this subgroup involved 10 people before the experiment, it doubled to 20 people after the experiment. In the subgroup with a high level of practical training the number of students increased by 2 people (8 vs. 6), i.e. by almost 6%. At the same time, the medium-level subgroup decreased by 7 students (by 18.42%) after the experiment, and all students of the low-level subgroup improved their level of practical training to the medium level. Figure 5 shows the dynamics of changes that occurred in the experimental group.

■ Before the experiment   ■ After the experiment
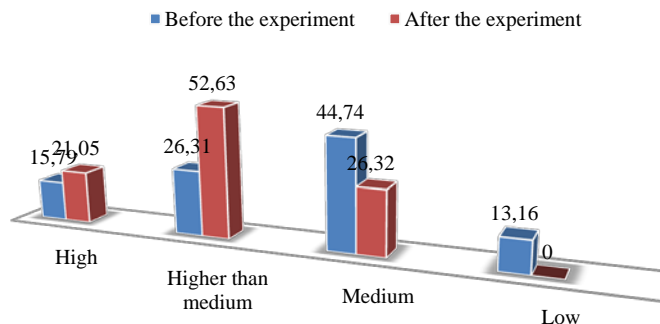
Figure 5. Changes in the levels of practical training of students in the experimental group as a result of the experiment

Thus, we can argue that our proposed experimental approach has significantly increased the effectiveness of practical training of future teachers for work in preschool institutions in an inclusive environment.

Next, let us consider the results of the experiment in two aspects. The first concerns the competencies acquired and developed by the students of the experimental group during the internship built on the basis of the experiential approach. The second aspect reveals the positive changes in the development of students' competencies related to the experiential learning cycle in connection with the involvement of students of the experimental group in reflection, analysis, generalization and finding ways to improve their professional skills as inclusive preschool teachers. The results of the experiment also relate to the development of students' skills in the educational coaching system.

Thus, the students of the experimental group (compared to the control group) had a significantly higher level of development of such competencies as:

- ability to determine special educational needs of pre-schoolers with psychophysical disorders, to monitor their development, and adequately assess the causes of difficulties in learning and different activities of these children;
- ability to detect deviations in the development of pre-schoolers, and participate in the provision of proper psychological and pedagogical support to children in need of correction of psychophysical development jointly with correctional teachers;
- ability to plan and implement an individual approach in all activities taking into account the diagnosis of children with disabilities: make up an adapted educational program, select pedagogical tools to achieve educational goals and objectives in accordance with the specifics of children's development by involving them in games in small subgroups, to general round and imitation games, pair assignments, and thus develop the interest of children with special educational needs to communicate with peers and enrich the experience of such children;
- experience in developing basic self-care and hygiene skills in children with disabilities (washing, wiping hands and face with a towel, putting on and taking off clothes, caring of clothes, sitting properly at the table and using cutlery, putting toys in place and maintaining order etc.);
- ability to prepare healthy pre-schoolers for positive interaction with peers who needed correction of psychophysical development, to help children through joint activities to learn new ways and techniques in practical matters (joint games, work assignments, care for animals, plants, etc.);
- the ability to develop manual dexterity, articulatory and general motor skills in children with special educational needs through finger, articulation exercises, speech,

massage, general developmental exercises, games, and assignments;
- skills to create a subject-development environment for the effective solution of educational problems taking into account the level of psychophysical development of each pre-schooler;
- experience of interaction with parents, providing them with the correct information and skills of raising children with mental and physical disabilities.

On the other hand, the students of the experimental group received and developed specific competencies related to reflection, analysis, generalization, and finding ways to improve their professional skills as inclusive preschool teachers:

- skills of preparing a report on each lesson with the presentation of photos, videos and other materials;
- ability to present materials on activities in an inclusive preschool establishment, share their experiences with colleagues, structure discussions;
- ability to determine the factors of success and causes of failure in their practical activities, exchange views, structure their experience according to the following criteria: "What parts of the lesson do you consider successful? What worked well and thanks to what? What elements of the lesson can be considered unsuccessful? What failed and for what reasons?";
- ability to generate and select ideas, as well as find ways to improve practical competencies in particular types of work with children in an inclusive environment;
- the ability to compare the discussed experience in an inclusive preschool establishment with generalizations of previous experience, i.e. classes conducted earlier;
- ability to develop and implement plans for personal development and improvement of professional skills as inclusive preschool teachers.

In the process of internship supervision during the experiment, teachers and internship supervisors from preschool educational institutions used the method of coaching, which was based on a cyclical sequence of stages of experiential learning (analysis of the level of student professional training and collection of necessary information; elaboration of personal and professional development plan; implementation of the plan using appropriate styles and techniques; evaluation of the success of the achieved results). Coaching techniques such as GROW, Structural Technique, 3D, Spiral of Practice were used (Parsloe & Leedham, 2009).

As a result, the role of the teacher, who created conditions and helped students to organize the process of gaining experience and personal development as future preschool teachers in an inclusive environment, radically changed in experiential education. This allowed considering the coaching skills acquired by students as a result of the experiment. It is worth noting that the educational coaching used in experiential learning was based

on the principles of equality, faith in people, holistic approach, monitoring and feedback (Code of Ethics, 2020; Whitmore, 2017). The principle of equality or partnership created favourable conditions for teacher-student cooperation. The results of this approach were experimental group students' gained confidence in their abilities and taking responsibility for the consequences of their actions in the learning process. Thanks to the principle of a holistic approach, students developed the competence of designing their own personal development. Through the application of the principles of monitoring and feedback, students developed their skills of assessing and recording their own achievements on the way to mastering the professional activities of teachers in an inclusive environment.

5 Discussion

Analysing the results of our experiment, we should note that the thesis (Kasyanenko, 2018) also covered improving the process of training future teachers for work with preschool children in an inclusive environment. The formative experiment conducted in her research involved the development of a model of training university students majoring in Pedagogy for work under the conditions of inclusion, determining the pedagogical conditions of its formation and generalization of experimental data.

Substantiating such a model, the author emphasizes the application of the contextual learning theory, activity learning theory, as well as the theoretical generalization of different experiences of using forms and methods of active learning. Kasyanenko (Kasyanenko, 2018) considers that the most important features of this type of training should be: the active position of the subject of study, when the subject of activity gradually transforms from purely educational to almost professional, as well as requirements of professional activity, setting the contextual principle of building and implementing specialist's training.

The main factor that ensured the achievement of the objective set (Kasyanenko, 2018) was involving future teachers in a special course Organization of Educational Work with Preschool Children with Mental and Physical Disabilities, which provided for quasi-professional activities aimed at learning ways and experience of particular professional actions in the process of inclusive education. The main forms of learning in this special course were problem lectures, lectures-discourses, seminar, business and situational-role games, modelling and analysis of pedagogical situations, practical classes, consultations, independent and educational research of students under the guidance of a teacher, pedagogical internship.

Without underestimating the importance of this study, we note that quasi-professional activity, although it brings students closer to understanding their future profession, cannot replace particular pedagogical activities in terms of inclusion. Instead, the focus of our experiment was the practical activities of students, which fulfilled real educational objectives as regards preschool children with special educational needs.

A significant difference of our study was the practice-centered approach, i.e. the first and main stage of training of future teachers was obtaining relevant practical experience. Instead, in her study Kasyanenko (Kasyanenko, 2018) set the objective to develop students' motivational, cognitive and reflexive competence in educational and cognitive activities.

It is important to note that in (Kasyanenko, 2018) were used questionnaires and assignments of a verbal nature ("describe", "analyse", "model", "answer the questions") to determine the operational component of the readiness of future teachers for work with preschool children in an inclusive environment. In our study, we gave preference to observation, expert evaluation and performance of practical assignments in real practice for a similar determination of the level of students' readiness.

In our experiment, we paid considerable attention to the justification and application of experiential learning styles

during the internship of students in preschool educational institutions in an inclusive environment. Internship supervisors from the university and from the place of internship used the methods of educational coaching, which gave a tangible effect in shaping the readiness of students for work in an inclusive environment. Kasyanenko (Kasyanenko, 2018) didn't study the above aspect in her thesis.

Thus, our experiment differs significantly from the thesis of (Kasyanenko, 2018) and contributes to the improvement of methods of training future teachers for work with children in an inclusive preschool environment.

6 Conclusion

The studies related to the improvement of future teacher training for work in preschool educational institutions paid insufficient attention to the experiential approach in the practical training of students for educational activities with children having special needs. Our research helps to eliminate this gap, and experimentally proves the effectiveness of the proposed approach, which significantly increases the level of readiness of future teachers for practical professional activities in the context of inclusion.

In the course of the research, we established that the proposed experimental approach contributes to a significant increase in the level of practical training of students — future teachers of preschool establishments — for work with children in an inclusive environment. The results of the experiment showed that the students of the experimental group as a whole showed a higher level of practical competencies under the conditions of inclusive education, such as the ability to identify special needs of children and adequately assess the causes of difficulties in the acquisition of knowledge and different activities of these children; the ability to conduct educational classes with them, adapting curricula to special needs. Besides, students showed the ability to work in a team of diverse specialists in the process of reflection on the experience gained; ability to form the readiness of healthy preschoolers for positive interaction with peers in need of correction of psychophysical development; skills to create a subject-development environment for the effective solution of educational problems taking into account the level of psychophysical development of each preschooler; experience of interaction with parents, providing them with the correct information and skills of raising children with mental and physical disabilities, etc.

In the process of internship supervision during the experiment, teachers and internship supervisors from preschool educational institutions used the method of coaching, which was based on a cyclical sequence of stages of experiential learning (analysis of the level of student professional training and collection of necessary information; elaboration of personal and professional development plan; implementation of the plan using appropriate styles and techniques; evaluation of the success of the achieved results), and provided for adhering to the principles of equality, faith in man, holistic approach, monitoring and feedback. Coaching techniques such as GROW, Structural Technique, 3D, Spiral of Practice were used.

The results of the study contribute to the development of inclusive preschool education, can be used to improve the educational process in higher educational institutions for students majoring in Preschool Education, as well as in the system of retraining and advanced training of preschool teachers.

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Primary Paper Section: A

Secondary Paper Section: AM

DISCUSSION IMPERATIVES AND INTERACTIVE LEARNING TECHNOLOGIES IN UNIVERSITY EDUCATION INSTITUTIONS OF UKRAINE: BASIC APPROACHES AND APPLICATION OF EUROPEAN EXPERIENCE

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Abstract: As a result of the adaptation of Ukraine's national education to European standards and the requirements of the Bologna Process, not only the traditional model of education has been improved in Ukrainian university education institutions, but also the transition to active and interactive learning technologies has taken place. Modernization of the university education system in Ukraine is due to the transition to the latest educational systems and technologies that have successfully proven themselves in European university education institutions. This study covered seven Ukrainian university education institutions that implement interactive learning strategies aimed at active interaction between student and teacher through the use of basic interactive technologies: learning in the game and training in discussion.

Keywords: latest technologies, educational disciplines, role-playing games, trainings, case methods, discussion

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1 Introduction

In the system of higher education in Western Europe, starting from the 1950s, innovative teaching technologies began to be introduced into the process of professional training of future graduates of universities. The transition from a purely traditional or classical model of learning to active and interactive was due not only to the fact that the classical form was not very efficient, but also due to the rapid development of the economy, which began to recover after a long decline and required experts with critical thinking skills and which would motivate them to develop such qualities as leadership, creativity, innovation, determination, willingness to undertake responsibility (Taleb, 2016; Zirawaga et al., 2017).

In Ukraine the universities began to develop a new model of learning management, introducing the latest educational technologies, only at the beginning of the XXI century. This process was stimulated by the European integration aspirations of Ukrainian society and the accession of the university education system of Ukraine to the Bologna Process on May 19, 2005, following the signing of the Bologna Declaration at the Bergen Conference of European Ministers of Higher Education. (Nikolaeva, 2015) The political, legal and organizational aspects of the process of forming a single European space of education and science are covered in the Lisbon Strategy, which aims to implement organizational, legal and methodological measures of the Bologna Process (Kwiek, 2013). Adaptation of Ukrainian legislation to the requirements of the Bologna Process, joint training of experts in European universities and exchange of graduates have accelerated the entry of the Ukrainian university education system into the European one, which is based on institutional autonomy, academic freedom, equal opportunities and democratic principles (Dakowska, 2017).

Among a number of European universities the oldest is Bologna, which was founded in 1088. Keeping the traditions of cultural institutions, which reflect the ethical aspects of education and research, European institutions of university education for a long time have played an important role in the development of critical thinking skills of students (Bratianu et al., 2011; Karbalaei, 2012). During the emergence of universities in medieval Europe, discussions developed significantly, because the main methods of teaching in universities were lectures and debates. Teachers

presented lecture material, giving explanations to it, after which debates continued, the purpose of which was to establish or substantiate the scientific postulate. Disputes had a clear organizational structure, they were always initiated by the rector of the institution, followed by the dean, masters and, finally, all who wished to speak. The ultimate goal of such debates was not to reveal the truth or to search for new scientific knowledge, but to demonstrate to the partner skilful dialectical techniques.

In modern realities, among the successful educational strategies in European university education institutions, discussions keep being one of the important means of cognitive activity of students (Bowen, 2013). The experience of using this strategy shows that it promotes the development of critical thinking and allows determining your own position, develops the skills of defending your own opinion and deepens the acquired knowledge (Dakowska, 2017).

It should be noted that currently most European universities have developed a powerful system of educational activities with adequate material and technical base and thorough methodological implementation of innovative learning technologies in the training of future professionals. Interactive learning technologies, which involve active interaction between student and teacher through the use of simulation of life and professional situations, role-playing games and methods that create situations of search, empathy and risk have become an integral part of curricula in European university education institutions (Kwiek, 2013).

If we analyze the innovative activity in university education institutions in Ukraine, it is only on the way to its formation. The main idea of modernization of the higher education system is certainly based on the introduction of the latest educational systems and technologies that have successfully proven themselves in European university education institutions (Kwiek, 2012; Report to the European Commission on New Modes of Learning and Teaching in Higher Education, 2014). Particular attention is paid to the development of interactive teaching methods: interactive business games, role-playing games, trainings, case-methods, which allow students to effectively absorb a huge amount of information and further to use the acquired knowledge in future practice.

This study covered university education institutions of Ukraine in which interactive technologies have been developed in some disciplines and are successfully implemented in educational programs. For analysis we selected disciplines represented by such sciences as: humanitarian, juristic, mathematical and medical. This made it possible to show the diversity and effectiveness of educational strategies that are implemented by Ukrainian teachers during the educational process.

2 Methods

2.1 Data Sources

To study the implementation of innovative approaches in university education institutions of Ukraine over the past decade, seven universities were selected (Table 1), which successfully practice interactive learning technologies: Dragomanov National Pedagogical University, Kyiv; Institute of Philology of Taras Shevchenko National University, Kyiv; Borys Grinchenko Postgraduate Education University, Kyiv; State University of Internal Affairs, Lviv; National University of Culture and Arts, Faculty of Information Policy and Cyber Security, Kyiv; Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia; Ukrainian Medical Dental Academy, Poltava. For the completeness of the study, university education institutions were selected in such a way as to cover different areas of science, in particular: humanitarian, juristic, mathematical and medical.

Information on interactive teaching methods in the above-mentioned university education institutions of Ukraine was obtained from the following sources (Demkiv et al., 2018; Skrypnyk et al., 2012; Mospan, 2012; Borysovych, 2015; Petruk et al., 2012). In this study the classification of interactive technologies (Pometun & Pyrozhenko, 2004) has been chosen,

which most fully reflects the learning technologies used by teachers in compiling curricula in university education institutions of Ukraine (Fig. 1). The following sources were developed for comparative analysis of the main approaches to interactive learning technologies and the application of the European experience (Taleb, 2016; Dakowska, 2017).
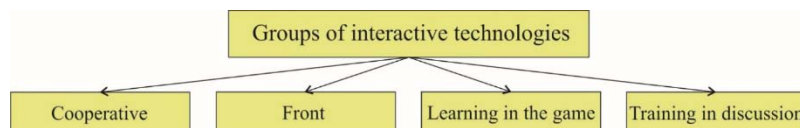
Fig. 1. Groups of interactive technologies used in university education institutions of Ukraine (17)

Table 1. The list of researched institutions of university education of Ukraine and the interactive methods applied by them for studying of separate educational disciplines

Institution of university education	Science/ *Specialty*	Educational discipline	Interactive methodology
▪ Dragomanov National Pedagogical University, Kyiv ▪ Taras Shevchenko Institute of Philology, National University, Kyiv ▪ Borys Grinchenko University, Kyiv	Humanitarian / *Philology (Foreign languages)*	English	Cooperative: - "Three-step interview", - "We exchange problems", - "Working in pairs: predictions"; Training in discussion: - "Reading aloud from the author's chair"
▪ Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia ▪ National University of Culture and Arts, Faculty of Information Policy and Cyber Security, Kyiv	Mathematical/ *Mathematics*	Higher mathematics	Learning in the game: - Reproductive games, - Problem-searching generalized games, - Creative games
▪ State University of Internal Affairs, Lviv	Juristic / *Law*	Civil law and legal proceedings	Cooperative: - " Roundabout"; Front: - Case method; Learning in the game: - "Simplified court hearing"; Training in discussion: - The Oxford Debate
▪ Ukrainian Medical and Dental Academy, Poltava	Medical/ *Pediatrics*	Clinical	Front: - Case method

2.2 Analytical Approach

Our research is based on a number of data collected by studying the curricula of higher education institutions of Ukraine, necessary for the analysis of the success of the implementation of interactive learning technologies for students to study certain disciplines. A number of theoretical research methods were used and combined in this study: historical and logical methods, analysis, synthesis, classification, generalization and analogy, juxtaposition and comparison, induction and interpretation. Modern educational technologies and fundamental statements of university education pedagogy make the methodological basis of this study.

3 Results

3.1 The Results of the Implementation of Interactive Learning Technologies for the Study of English: Dragomanov National Pedagogical University, Kyiv; Institute of Philology of Taras

Shevchenko National University, Kyiv; Borys Grinchenko Postgraduate Education University, Kyiv

In the researched institutions of university education at the Department of Foreign Languages, in addition to traditional basic methods of teaching a foreign language (English), interactive learning technologies are implemented, which are aimed at the transition from informational-explanatory to practical-developmental learning. For this purpose, teachers have developed a number of approaches that allow the implementation of new technologies for successful learning of English in a consistently organized environment. Figure 2 schematically shows the most common interactive learning technologies that are used in practice in the studied universities. The most common is cooperative technology, which involves building a learning process based on a short group strategy. This strategy includes: "Three-step interview", "We exchange problems", and "Working in pairs: predictions".
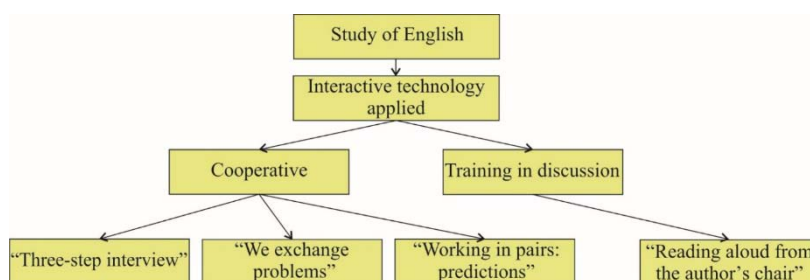
Fig. 2. A diagram showing the applied learning technologies for the study of English

Let's take a closer look at these strategies and what positive results they can get. "Three-step interview" – the teacher sets a topic for discussion and a group of three students must try themselves in different roles: interviewer, the one who gives the interview and the one who writes it down. This strategy allows improving not only language skills but also writing.

Strategy "We exchange problems" – the teacher asks to read the cognitive text. Students who have formed pairs highlight the key points of the text and have to retell it in their own words. Then, each pair of students identifies the questions that arose while reading the text, which should be answered by another pair of students. This learning strategy is designed to develop and improve students' speaking skills.

Teaching methods "Working in pairs: predictions" allows developing both conversational skills and reading. Students are divided into pairs. They are offered to exercise with a work of art unknown to them. The teacher reads the key words from the work of art. The students write down these words and after discussing them in pairs have to express their assumptions about the possible plot of the work. After this discussion, students begin reading the work of art to compare the plot with their predictions.

An important strategy that is often used after the above methods is "Reading aloud from the author's chair". The student is asked to present his thoughts on paper in the form of ideas or essays, and then he is offered to take the so-called "author's chair", which is located in the middle of the classroom and read the written text aloud. Then students are invited to discuss what they have heard. This technique allows improving a number of skills: writing, reading and communication.

3.2 The Results of the Implementation of Interactive Learning Technologies for the Study of Higher Mathematics: Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, and National University of Culture and Arts, Faculty of Information Policy and Cyber Security, Kyiv

To effectively master the Higher mathematics by the students of the studied university education institutions, teachers implement interactive technologies in the learning process, which are based, as shown in Figure 3, on learning technologies in the game, including the use of reproductive games designed to form the student's necessary knowledge and skills, problem-searching generalized games, that involve a search element and creative games that develop cognitive qualities.
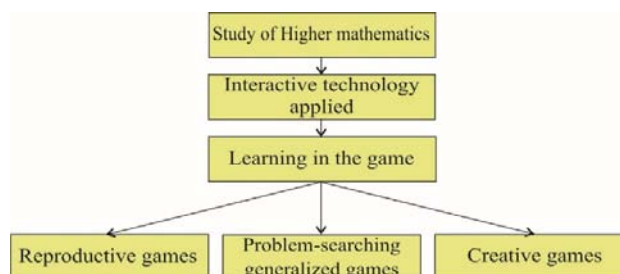
Fig. 3. A diagram showing the applied learning technologies for the study of Higher mathematics

Let's focus on the analysis of these learning technologies in the game. Reproductive games allow the teacher to deepen and improve the already acquired knowledge of students. Lottery games are often practiced. For example, "Mathematical lottery on the boundary theory". Each student is offered to buy a lottery at a symbolic price. The ticket price is an answer regarding the equivalence of a certain infinitesimal function. The student receives a lottery ticket with the task to calculate the boundary. After the calculation, students have the opportunity to compare the answers. Those who have a "lucky ticket" receive a prize in the form of solving a problem with automatic calculation on this topic. Students who have "unlucky tickets" receive points for each correctly solved task.

Problem-searching generalized games are aimed at the implementation of logical operations by the student, provide an element of search and are based on the knowledge acquired by the student. The teacher forms two groups of students and suggests solving two different exercises related to the same object. The teacher then calls a representative from each group, who reports on the progress of the task and gives answers to any questions from the teacher. According to the results of the presentation of each of the representatives from the groups, the whole group of students is evaluated. This technology allows the teacher to form the student's organizational skills, decision-making skills and skills of undertaking responsibility.

Creative games that develop the student's cognitive abilities are also quite common educational technology, in particular, such tasks are often offered in analytical geometry. The teacher divides students into two groups and describes a very realistic life situation, where students in an imaginary area by solving problems in analytical geometry by calculations should build a certain infrastructure: bridges, roads, buildings, calculate distances to them, the size of buildings. Time is limited, it is important to do everything quickly and correctly. Two groups

competing with each other try to show their professional creative thinking, to understand the visual application of acquired knowledge. Students from passive listeners become participants in the educational and creative process.

Thus, the game approach to the study of Higher mathematics sharpens students' interest in studying or mastering the material, encourages them not only to properly assess their capabilities, but also to implement them and visualize the results of their activities.

3.3 The Results of the Implementation of Interactive Learning Technologies for the Study of Civil Law and Legal Proceedings: State University of Internal Affairs, Lviv

The researched university education institution successfully implements interactive learning technologies, which allow future lawyers to significantly improve the amount of mastered material and give the opportunity to acquire practical skills that are essential for the future expert. As it is shown in Figure 4, all four interactive technologies are used to study civil law and legal proceedings: cooperative, front, learning in the game and training in discussion. In this study we will focus on some of them in more detail.

One of the methods that is being successfully implemented is "Roundabout". Divided into two groups, students form two circles. In the inner circle, students play the role of listeners and can ask clarifying questions, while the participants sitting in the outer circle express their thoughts on the topic suggested by the teacher. All the students are divided into pairs and those sitting in the outer circle move every one or two minutes. Then the participants from the inner circle change with the participants from the outer one. Thus, law students learn to quickly express their opinions, to be able to listen to the opponent and to ask short meaningful questions.
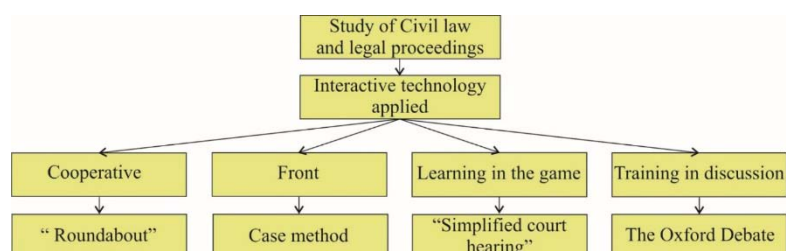
Fig. 4. A diagram showing the applied learning technologies for the study of Civil law and legal proceedings

The case method, which is formed on the basis of a theoretical course and meets the professional needs of the student, is introduced quite successfully for the study of Civil law and legal proceedings. The teacher offers students a situation that is closely related to real cases that have occurred in the practice of legal professionals, the solution of which required immediate legal decisions. Dialogues, remarks of participants of a situation are presented. Both positive, and negative examples of the solution of the set task are analyzed. To solve the situational exercise, the teacher provides clear instructions, but without hints on which way to solve the problem. This learning technology is quite successful because it allows connecting the law and factual situations, teaches students to look for the right answers and make balanced legal decisions by analyzing current legislation.

Among the game methods the educational technology "Simplified court hearing" is widespread. Students have the opportunity to get an idea of the simplified procedure of court proceedings and court decisions. The teacher distributes roles within the group: prosecutor, barrister, plaintiff, defendant, judge, witnesses and other members of the trial. Students stage a trial, discuss it, and gain decision-making skills to better understand their actions in real life.

An important role in the process of teaching law students is given to interactive technologies "Learning in discussion". One of the most common, but at the same time the most complex educational technology practiced in the researched university education institution is the Oxford Debate. The teacher conducts

preparatory work, teaches students to work in groups, to master the technology of studying problems and to make public speeches of keynote speakers. Then each group must convince opponents of the need to change their point of view, being able to express their opinion, to listen to the opposite side and to find a common solution. In addition, this technology of interactive learning envisages after the presentations of the keynote speakers to conduct debates that continue until everyone has spoken. The debates are structured so that speakers from each group take turns speaking and defending their points of view, while others oppose them. The debates end with a vote, during which all participants have the right to speak based on the position that everyone has taken. All voters vote on the basis of arguments provided by both parties.

3.4 The Results of the Implementation of Interactive Learning Technologies for Medical Students to Study Clinical Disciplines: Ukrainian Medical and Dental Academy, Poltava

In the researched university educational institution at the Department of Internal Medicine teachers actively use the case method as an interactive technology of teaching students (Fig. 5). The most common is the practice of using this technology during clinical and clinical-pathological conferences, as well as during medical practice. This method allows teachers, together with a group of students, to analyze the situation that may arise in a particular clinical case and to indicate to participants what plan it is necessary to choose for patient examinations, what practical solution to develop for diagnosis, treatment and further disease prevention.
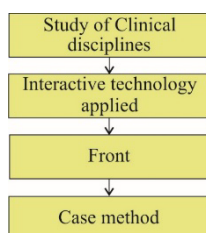
Fig. 5. A diagram showing the applied learning technologies for the study of Clinical disciplines

Often students are asked to analyze various pathologies at no apparent reason. Participants should independently analyze the symptoms to determine the probable causes of this pathology. Then they should make and substantiate their diagnosis and the optimal treatment tactics. The case method during its application has shown its effectiveness in the acquisition of knowledge and in the ability of medical students to make independent decisions.

4 Discussion

According to results of investigations in a number of European university education institutions, students at all academic levels study on programs with in-depth strategies and practices of analytical thinking (Peters, 2017; Sawaya, 2012). Innovative programs are developed taking into account the points of view of students. Annual seminars are organized for teachers, where they have the opportunity to learn about new educational technologies. (20) At the same time, the practice of interactive

technologies has long been widespread in school education (Zirawaga et al., 2017).

Important role in European university education institutions is given to funding, which encourages teachers to create effective innovative curricula on a competitive basis (Auranen & Nieminen, 2010; Bratianu & Orzea, 2013; Hicks, 2012). In addition, considerable attention in the development of teaching methods is paid to the development of analytical thinking, which is characterized by clarity of algorithm, chronological considerations, convincing reasoning and efficient steps (Darmawan, 2020). For this purpose, various technologies of interactive learning are used, in particular: cooperative, front, learning in the game, training in discussion, (Ennis, 2011; Lincoln & Kearney, 2019) which, as shown in this research, have been successfully implemented in Ukrainian universities.

In Ukraine, the school education system differs significantly from the approaches to university education. It is difficult for

first year students to adopt new approaches to the acquisition of knowledge in university education institutions, because, as research has shown, the skills they acquired at school were not sufficiently directed to develop independent work. The results of investigations (Table 2) show that their ability to work independently with educational literature and theoretical material as well as compilation of compendium are quite insignificant. (Petruk et al., 2011)

Table 2. The indicators of skills of independent work for first year students of university educational institutions of Ukraine (Petruk et al., 2011)

Indicators of skills of independent work	Rank rating	Number of students in %
Learned a compendium of lectures	0	23.2
	1	24.3
	2	52.5
Found educational literature on the advice of a teacher	0	12.2
	1	18.4
	2	69.4
Independently selected literature on the studied topic	0	41.3
	1	27.1
	2	31.6
Learned theoretical material and compiled a compendium	0	39.1
	1	36.3
	2	24.6

Therefore, special importance is given to innovative learning technologies that in search of improving the educational process are successfully developed by teachers in a number of university education institutions in Ukraine (Demkiv et al., 2018; Skrypnyk et al., 2012; Petruk et al., 2012). Efficient implementation of interactive teaching methods was facilitated by Ukraine's entry into the Bologna Process, which led to the use of credit-modular system of learning in university education (Garben, 2010). It improves the quality of training of future professionals, enables teachers to better manage students' cognitive activities, while students can study more independently, if necessary receiving the consultation of teachers, to learn the material themselves when working with the recommended main and additional literature. The modular approach has led to the transition from passive to active forms of learning and achieving the necessary professional competence through independent activity.

The results of analysis of seven institutions of university education of Ukraine, presented in this study, namely: Dragomanov National Pedagogical University, Kyiv; Institute of Philology of Taras Shevchenko National University, Kyiv; Borys Grinchenko Postgraduate Education University, Kyiv; State University of Internal Affairs, Lviv; National University of Culture and Arts, Faculty of Information Policy and Cyber Security, Kyiv; Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia; Ukrainian Medical Dental Academy, Poltava, showed that for the development of skills of self-education, self-improvement and formation of professional competencies of students, efficient approaches have been developed for various branches of science, covering all basic interactive technologies: cooperative, frontal, in-game learning and discussion. The implementation of interactive teaching methods in the professional education in the fields of humanitarian, juristic, mathematical and medical disciplines allow the teacher to change the attitude of the student to the object of study, turning it into a subject of study. With this approach to learning, the student becomes a co-author of lectures, seminars and practical classes.

5 Conclusions

Summarizing this study, it should be noted that the implementation in Ukrainian universities of the latest educational technologies, which are successfully working in European university education institutions is on the way to its establishment. This is due to the fact that innovative technologies began to be used in the system of university

education in Western Europe in the 50s of the XX century, while in Ukraine only at the beginning of the XXI century.

Basic interactive teaching methods, such as discussions, interactive business games, role-playing games, trainings, case methods, which allow students to efficiently absorb a huge amount of information and further to use the acquired knowledge in their practical activities, have been especially developed.

Investigation of seven university education institutions of Ukraine covered in this study, in which interactive technologies have been developed on certain subjects, allowed to show the diversity and efficiency of educational strategies that are implemented by Ukrainian teachers during the educational process. The disciplines represented by such sciences as humanitarian, juristic, mathematical and medical have been selected for this study.

This research has shown that for various analyzed disciplines teachers have selected educational technologies that are most efficient for mastering certain subjects. In particular, group strategy and discussion learning are successfully used to study English. They develop all the basic skills, such as writing, reading and communication. To study mathematics learning in the game technologies are used, which not only contribute to the acquisition of the necessary knowledge and skills, but also develop the cognitive qualities of students. To master the refinement of civil law and legal proceedings the university students are offered a number of efficient learning technologies that allow not only to study real cases that occur in the practice of lawyers, but also to have the opportunity to get an idea of simplified litigation and judgment. In order to study clinical disciplines by students, teachers have developed successful learning strategies that allow to analyze the situation that could arise in a particular clinical case and to indicate to participants what plan they need to choose for patient examination and what practical solutions to develop for diagnosis, treatment and follow-up disease prevention.

Thus, based on the described above investigations, it should be noted that the interactive technologies, successfully implemented in university education, have all the prospects for their further development in the curricula of all leading universities in Ukraine.

6 Acknowledgements

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THE ROLE OF INTERACTIVE METHODS IN BUILDING PROFESSIONAL IDENTITY OF FUTURE MUSIC ART TEACHERS IN THE CONTEXT OF ONLINE LEARNING

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Abstract: The article presents the results of an experimental study of the impact of using interactive methods on building professional identity of future music teachers in the context of online learning. The professional identity of a music teacher is interpreted as an integral property of the individual, which combines a positive perception of the subject of his belonging to the profession and motivational activity to realise themselves in the chosen profession. The aim of the study was to empirically verify the effectiveness of interactive methods for building professional identity of future music teachers in online learning. The object of the study were second-year students majoring in Music Art. The level of building professional identity of students was diagnosed using the method of J. Marcia.

Keywords: Music Art teacher, interactive teaching methods, online learning, professional identity, motivation for music and pedagogical activity, academic performance.

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1 Introduction

In the modern world there are new requirements to the system of teacher training, in particular music teachers, able to form a vision of their professional future, to master the latest educational technologies, to succeed in their professional and pedagogical activities. It is a question of building professional identity of the future musical art teacher that is integral property of the person endowed with ability to conscious self-regulation and self-development in the professional activity.

The rapid development of digital technologies is leading to changes in traditional perceptions of education. The established concepts of education are being replaced by the fourth generation of education, which is the result of the implementation of technological solutions in Industry 4.0, the key factors of which are the spread of wireless communication, increasing the availability of artificial intelligence and other smart technologies.

However, the conservative part of professors who train music teachers in higher educational institutions is prejudiced about the possibilities of modern online learning. In this case, the main argument is the caution that such training increases the distance between the student and the teacher, and thus does not provide direct contact, which is essential for the transfer of pedagogical skills.

This statement is questionable, as online learning through the widespread introduction of interactive methods creates new opportunities for free exchange of ideas and interaction, both between teacher and students, and between students. Services, platforms and programs of the latest concept of education help to minimize routine in the work of the teacher and help each student to pay more attention to mastering pedagogical skills, prepare for the challenges of the modern world, as well as form flexible thinking and ability to learn quickly. These include the use of online resources such as Digital Audio Workspaces (DAW) and Soundation and SoundTrap cloud applications, which provide an opportunity to creatively organize the process of training music teachers.

The analysis of the educational process in Ukrainian higher educational institutions shows a number of contradictions between: active introduction of the latest network technologies in professional training and lack of in-depth analytical and theoretical generalizations in the spectrum of processing and adaptation of empirical data in accordance with the specifics of professional training of students of art specialties; rapid development of computer and multimedia support of the educational process and low efficiency of its use in the practice of professional training of future teachers of music; the general orientation of the educational process and insufficient development of methodological support for building their professional identity, in particular, in the process of distance learning.

This allows formulating the purpose of the study, which is to empirically verify our proposed approach to the use of interactive methods in building professional identity of future music teachers in the context of online learning. Accordingly, the following tasks were formulated: develop a program for building professional identity in students-future music teachers; experimentally test the impact of interactive methods of online learning on building professional identity of students in this specialty.

2 Literature Review

The development of the program of our research was based on the analysis of the world practice of using interactive methods in the context of online learning when building professional identity in future music teachers. First of all, we took into account global trends in changes in learning technologies according to the concept of Education 4.0, which provides for the use of interactive methods and the introduction of online learning. In this regard, the materials of the report "Schools of the Future" presented at the World Economic Forum held in January 2020, (Schools of the future report – world economic forum, 2020) as well as the OECD Future of Education and Skills 2030 were valuable (OECD future of education and skills 2030, 2018).

It was also important to study the experience of the United Kingdom in realizing the potential of modern information technology in education and training. In particular, the strategy developed by the British government to support the education sector and educational technologies, as well as promote innovation in accordance with the needs of the education system (Realising the potential of technology in education: A strategy for education providers and the technology industry, 2019) deserves particular review. In our opinion, this strategy needs further specification in the local conditions of world regions and countries, as well as certain areas of professional training. Therefore, we believe that our study contributes to the development of this aspect of the above conceptual projects.

Studying the experience of the University of Southern California's Thornton School of Music, we analysed the use of web technologies in the educational process, including Digital Audio Workspaces, Soundation and SoundTrap applications, etc (Four effective music teaching strategies for today's diverse classrooms, 2019).

In the course of the research, scientific publications related to various aspects of music teacher training in higher educational institutions were analysed. Among the many relevant scientific studies, attention should be paid to the research of A. Karaolis, G.N. Philippou, whose object was the identity of teachers. Using the original measurement tools, the authors found that there are three groups of teachers with different characteristics of professional identity: positive, negative and neutral. This technique can be used to study the professional identity of music teachers (Karaolis & Philippou, 2019). Our attention was also drawn to the thesis of the professional identity of a music teacher conducted by Elizabeth Reed at the School of Music, University

of South Carolina (USA). Using a special method, the author interviewed graduates of this higher educational institution for the last 20 years. The results of her research showed that experience, self-knowledge, adaptability to their environment and reflection are the main components in the development of the professional identity of a music teacher at different stages of his career. In addition, all graduates had a combination of three aspects of professional identity: subject, didactic and pedagogical (Reed, 2018).

S. L. Chua considered the problem of personality development of a music teacher, driving factors and inhibitors of this process is considered in the thesis. The author substantiates the concept of transformational learning in the professional development of music teachers (Chua, 2018).

An important factor in building professional identity of music teachers is their interpersonal relationships, in particular, in public life, which became the subject of Michael Benn's doctoral research. The author explored the role characteristics of primary school music teachers, as well as studied how participation in learning communities affects accumulation of the experience by these specialists (Benn, 2017).

Studyng the pedagogical conditions for building professional competence of future music teachers, R. Chulpan, Ch. Gromova and L. Saitova put forward the idea of the multifunctional nature, complexity, integration and personal orientation of the professional competence of music teachers. This allowed the authors to define the professional competence of a future music teacher as a professional and personal quality, characterized by a high level of integration of common cultural, professional, special, interdisciplinary competencies, mastery of modern technologies and techniques of music education (Chulpan et al., 2016).

N. Inoue examines the role of subjectivity in teacher development research. Referring to Japanese culture, he emphasizes the organic and true integration of thinking with one's feelings, denoted by the term "omoi", which combines deep-rooted feelings, one's integrated thinking, and personal experience. According to the author, this approach allows a better understanding of the role of subjectivity associated with the development of teacher experience (Inoue, 2016).

One aspect of the study was to examine the international experience of training music teachers. In this regard, a useful source was the work of T. Lindskog, A. Renberg and T. Tegler, which analysed the information and training programs for music teachers in Denmark, Finland, Latvia, Poland, Slovakia and Sweden. Based on the study of data from the web pages of educational institutions that train music teachers, the researchers found that the curriculum does not pay enough attention to music subjects (Lindskog et al., 2007).

It is worth paying attention to the article by E. Boone, which presents the results of a study of self-regulated learning of future music teachers in Turkey. It is important that the author in his study proves significant differences in the self-regulation of learning depending on gender: female students had a clearer planning and goal setting compared to male students. This study increases the relevance of the study of gender issues in the training of music teachers (Boon, 2020).

During the outbreak of the COVID-19 (coronavirus) pandemic, in the situation of closures of educational institutions, the problems of training music teachers in the context of online learning become relevant. This prompted an information search and analysis of publications on this topic. In particular, E. Caldwell, a member of the National Association of Music Education, reviewed relevant online resources and recommendations for using Zoom and Nearpod, as well as general tips for organizing virtual learning, including general music subjects, individual lessons, and ensemble rehearsals (Caldwell, 2020).

Besides, the focus of our study were publications on methodological issues of curriculum development, in particular the work of M. Bialik and Ch. Fadel. According to the authors, the goal is to rid the curriculum of outdated, irrelevant information, while modernizing it, systemically distributing the sequence and introducing content into the competence. The authors explain their ideas on the example of an analogy with teaching to play a musical instrument. (Bialik & Fadel, 2018). This conceptual approach was concretized by J. Gonsalez, (Gonsalez, 2015) as well as M. Giorgadze and M. Dgebuadze. (Giorgadze & Dgebuadze, 2017). In their publications, they described the introduction of interactive teaching methods, as well as the use of online resources in training music teachers (Gonsalez, 2015; Giorgadze & Dgebuadze, 2017).

3 Methods

Three groups of methods were used in the study. The first group included interactive methods used to form the professional identity of students of future music teachers: problem-oriented discussions; case-study, that is collective consideration of a real case when there is a need to solve one or more problems and there may be many solutions; simulations; work in small groups, when students of 3-5 people performed an assignment for which they were responsible together as a team.

The second group of methods concerned diagnostic procedures, which allowed determining the levels of built professional identity, motivation for the profession of music teacher, and student success before and after the experimental work.

The level of professional identity of students was diagnosed using the method of J. Marcia, who identified four levels of professional identity: blurred (diffuse) identity; premature identity; moratorium; acquired identity.

The level of motivation for future professional activity of students was diagnosed using Rean's method adapted by the author. The questions of the questionnaire concerned specific intentions regarding the content of the future profession (see Appendix).

The academic performance was evaluated according to the ECTS system (European Credit Transfer and Accumulation System (2020), which was generalized into a four-level quality scale: a high level of practical training corresponded to grade "A" excellent (90-100 points); "B" and "C" (75-89 points), medium level — grades "D" and "E" (60-74 points), low level — grades "FX" and "F" (1-35 points). Academic performance was determined by the results of the current certification and final control.

The third group of methods ensured the reliability and representativeness of the data obtained during the experiment: the development of the experiment plan, sampling, formation of experimental and control groups, statistical methods for evaluating the results. The object of our study were second-year students majoring in 025 "Musical Arts", who took a university course during the second half of the 2019-2020 academic year (the Primary Education Department of the Pedagogical Institute of Borys Grinchenko Kyiv University, the Department of Pedagogy of Art and Piano Performance of Anatolii Avdievskyi Faculty of Arts of National Pedagogical Dragomanov University, Department of Art Subjects and Methods of Their Teaching of the Faculty of Social and Pedagogical Education and Arts of Taras Shevchenko Regional Humanitarian and Pedagogical Academy of Kremenets.

The sampling procedure consisted of the gradual selection of students to participate in the study from the general population, which amounted to 257 people aged 20 to 25 years, by gender — 90% of women and 10% of men. At the first stage, a sample of 154 people was formed by random sampling. The second stage was the formation of experimental and control groups. The selection procedure was randomized at this stage, with 73 students in the experimental group and 84 in the control group.

The groups were equalized according to the following criteria: higher musical education, musical instrument skills, and computer technology.

In the experimental work, the plan "Before-after with the control group" was used, according to which the first (experimental) group of students applied interactive methods using online technologies, while the second (control) group studied with the use of traditional (lecture and practical) methods.

4 Results

To test the effectiveness of the proposed method for building professional identity of future music teachers using interactive methods in the online learning process, we surveyed students for their motivation for music teaching, and recorded levels of academic success. In order to compare the effect of the experimental technique, these procedures were performed twice: before the experiment and after. First of all, let us analyse the performance of students in the experimental and control groups before the experiment (Table 1).

Table 1. Student academic performance rates (before the experiment)

Academic performance levels	Experimental group		Control group	
	People	%	People	%
High	10	13.70	12	14.28
Medium	20	27.40	23	28.58
Sufficient	33	45.20	36	42.86
Low	10	13.70	12	14.28
Total:	73	100	84	100

According to Table 1, the distribution of student performance indicators in the experimental group allowed determining that 10 (13.70%) of them had a high level, 20 (27.40%) had medium, 33 (45.20%) — sufficient, and 10 (13.70%) — low. Similar calculations in the control group showed that there were 12 students (14.28%), with a high academic performance, 23 (28.58%) had medium, 36 (14.28%) — sufficient, and 12 (14.28%) — low (Figure 1).

Since in Table 1 levels of student academic performance are presented on an ordinal scale, this allows using Pearson's chi-squared test to test the statistical hypothesis of the difference between the experimental and control groups. Calculation of the empirical value of the $\chi 2$ criterion according to Table 1 is 0.063 at the level of confidence p=0.996, which gives grounds to reject this hypothesis:

$$\chi 2_{\ emp} = 0.63 < \chi 2_{cr0.05} = 7.815.$$

Therefore, it can be argued that there were no differences between the experimental and control groups before the experiment. Figure 1 demonstrates comparison of student performance indicators in the experimental and control groups.

■ Experimental group   ■ Control group
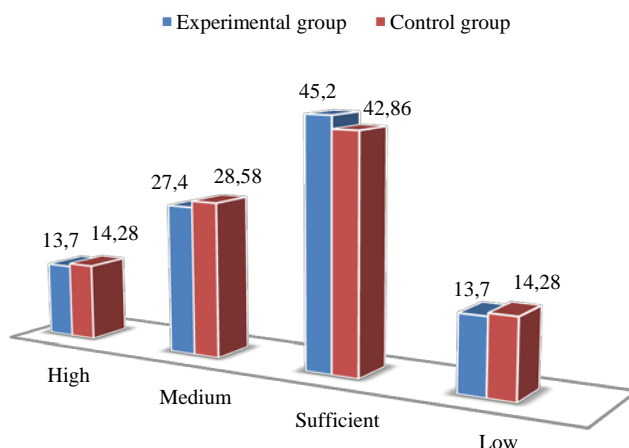
Figure 1. Distribution of students by levels of academic performance in the experimental and control groups before the experiment (in %)

An essential component of the professional identity of future music teachers is their motivation for music-pedagogical activity. Table 2 presents survey data conducted in the experimental and control groups before the experiment.

Table 2. Motivation of students to music-pedagogical activity (before the experiment)

Levels of motivation according to the survey results	Experimental group		Control group	
	People	%	People	%
High	7	9.59	10	11.90
Medium	24	32.88	25	29.76
Sufficient	29	39.72	32	38.10
Low	13	17.81	17	20.24
Total:	73	100	84	100

Table 2 data show that in the experimental group a high level of motivation was recorded in 7 (9.59%), a medium level in 24 (32.88%), a sufficient level in 29 (39.72%), and a low level in 13 (17.81%) students. Accordingly, in the control group similar data were as follows: 10 students (11.90%) had high level, 25 (29.76%) had medium, sufficient was found in 32 people (38.10%), and low - in 17 students (20.24%).

Having calculated empirical value of the $\chi 2$ criterion according to Table 2, and comparing it with the critical indicator ($\chi 2_{emp} = 0.462 < \chi 2_{cr} 0.05 = 7.815$) at the level of confidence p=0.928, we can conclude that there are no statistically significant differences between the experimental and control groups on the criterion of student motivation to music and pedagogical activity. Figure 2 shows the distribution of students by levels of motivation for musical and pedagogical activities.
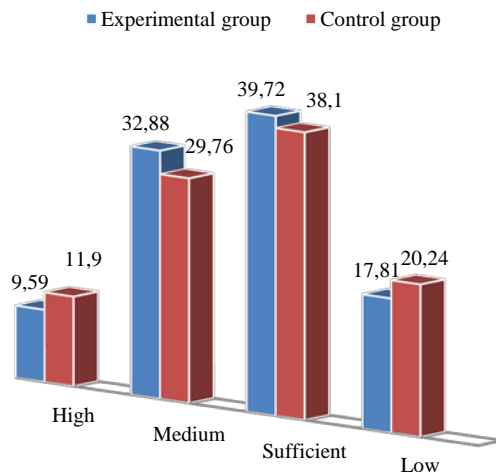
Figure 2. Distribution of students by levels of motivation for music and pedagogical activity (in %)

The evaluation of the results of the experimental work was carried out using the tools described above. Table 3 provides empirical data of the re-design of the academic performance of students in the experimental and control groups.

Table 3. Student performance indicators (after the experiment)

Academic performance of students	Experimental group		Control group	
	People	%	People	%
High	18	24.66	15	17.86
Medium	32	43.83	25	29.76
Sufficient	21	28.77	34	40.48
Low	2	2.74	10	11.90
Total:	73	100	84	100

Table 3 shows that 18 (24.66%) students had a high level of success in the experimental group, 32 (43.83%) had a medium level, and 21 (28.77%) had a sufficient level. Typically, 8 students who had a medium level before the experiment raised it to a high level, as well as 8 students who had a low level moved to a group with a sufficient level. The generalization of student

performance indicators in the control group showed that 15 (17.86%) students had a high level, a medium level was recorded in 25 students (29.76%), 34 students (40.48%) had a sufficient level, and 10 (11.90%) had a low level.

Calculations in the situation "after the experiment" showed that the value of the $\chi2$ criterion is 8,811 with a critical value of 7.815 at the level of confidence probability p<0.05, that is $\chi2_{emp.}$ = 8.811> $\chi2_{cr}$0,05 = 7.815, which indicates a statistically significant difference between the experimental and control groups after the experiment, gives grounds to conclude about the significant positive impact of experimental methods on the academic performance of students in the experimental group. Comparison of the levels of academic performance of the experimental and control groups showed that the share of students in the experimental group with high and medium level significantly exceeded that in the control group — 68.49% vs. 47.62%, instead, the corresponding comparisons of students with sufficient and low levels only confirmed the trend of prevailing in the experimental group (Figure 3).
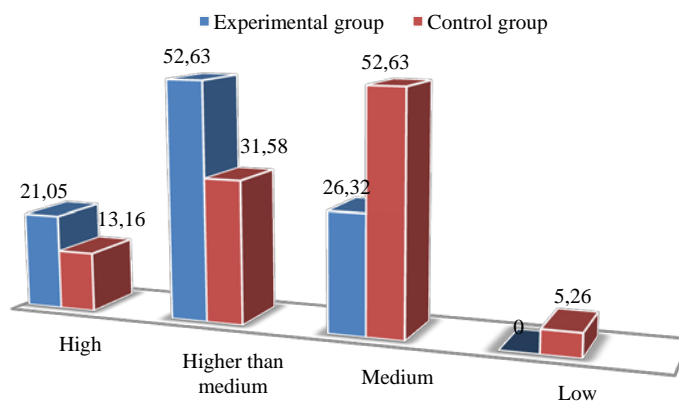
Figure 3. Comparison of student academic performance rates of the experimental and control groups after the experiment (in %)

Further analysis of the data obtained was to determine changes in student achievement under the influence of experimental factor. Table 4 contains data on the academic performance of students in the experimental group before and after the experiment for comparison.

Table 4. Changes in the success of students in the experimental group

Levels of academic performance	Before the experiment		After the experiment	
	People	%	People	%
High	10	13.70	18	24.66
Medium	20	27.40	32	43.83

Sufficient	33	45.20	21	28.77
Low	10	13.70	2	2.74
Total:	73	100	73	100

According to Table 4, a high level of academic performance after the experiment was recorded in 18 students, which is 8 people or almost 11% more than before the experiment. The most significant increase in academic performance was observed in the subgroup with an average level: from 20 to 32 students or

more than 16%. This was due to the fact that the level of academic performance of 12 students increased from sufficient to medium. It is worth noting that 8 students increased their level of academic performance from low to sufficient. The dynamics of academic performance give grounds to conclude about the significant positive impact of experimental methods on the academic performance of students in the experimental group. Figure 4 illustrates these changes.
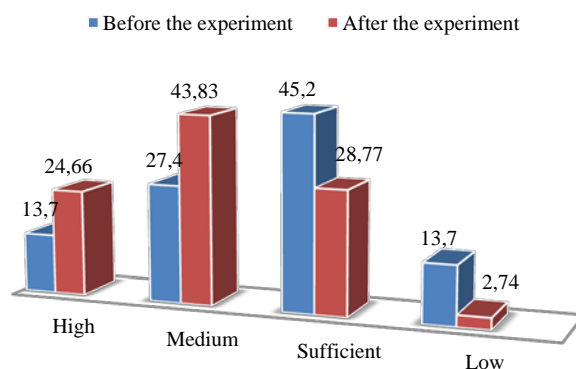
Figure 4. Changes in student achievement levels as a result of the experiment (in %)

One of the tasks of the experiment was to form students' motivation for music and pedagogical activity as a component of the professional identity of future music teachers. In order to record changes in this indicator after the end of the experimental work, it was re-designed (Table 5).

Table 5. Motivation of students to music and pedagogical activity (after the experiment)

Levels of motivation by the results of survey	Experimental group		Control group	
	People	%	People	%
High	19	26.03	9	10.71
Medium	35	47.94	21	25.00
Sufficient	15	20.55	33	39.29
Low	4	5.48	21	25.00
Total:	73	100	84	100

Analysis of Table 5 shows that in the experimental group the share of students with a high level of motivation is 19 (26.03%), and significantly exceeds the same indicator of the control group 9 (10.71%). The same trend is observed with respect to the average level: 35 (47.94%) in the experimental group as opposed to 21 (25.00%) in the control group. Instead, due to the increase in the level of motivation there was a decrease in the share of students with a sufficient level in the experimental group (15, 20.55%)) compared to the control group (33, 39.29%)), where the number of students at this level has not changed. According to the calculations of changes in the situation "after the experiment", it was found that the value of $\chi2$ reached 24.732, while the critical value of $\chi2$ at a significance level of p=0.01 is 11.345. This gives reason to conclude that the indicators of motivation in the experimental group significantly exceed those in the control group.

To establish the effectiveness of the influence of experimental methods on the formation of professional identity of students, the task was to compare the motivation of students to music and

pedagogical activities in the experimental group before and after the experiment. Table 6 shows the corresponding comparative data.

Table 6. Changes in students' motivation for music and pedagogical activity of students of the experimental group

Levels of motivation by the results of survey	Before the experiment		After the experiment	
	People	%	People	%
High	7	9.59	19	26.03
Medium	24	32.88	35	47.94
Sufficient	29	39.72	15	20.55
Low	13	17.81	4	5.48
Total:	73	100	73	100

According to Table 6, it can be found that the share of students with a high level of motivation after the experiment increased by 12 people, or more than 16% more than before the experiment. There was also a significant increase in the number of students with a medium level of motivation: from 24 to 35 people or 15%, which was due to an increase in students' level of motivation from sufficient (before the experiment) to a medium level (after the experiment). Similarly, in 9 students who had a low level of motivation before the experiment, this figure rose to a sufficient level.

Using the $\chi2$ criterion, a significant increase in motivation for music and pedagogical activities of students in the experimental group was established. The value of this criterion calculated according to Table 6 was $\chi2=16.809$, provided that its critical value at the level of significance p=0.01 is 11.345. This gives grounds to conclude that the experimental method has a significant positive effect. Figure 5 shows the dynamics of indicators of motivation for music and pedagogical activities in the experimental group before and after the experiment.

■ Before the experiment   ■ After the experiment
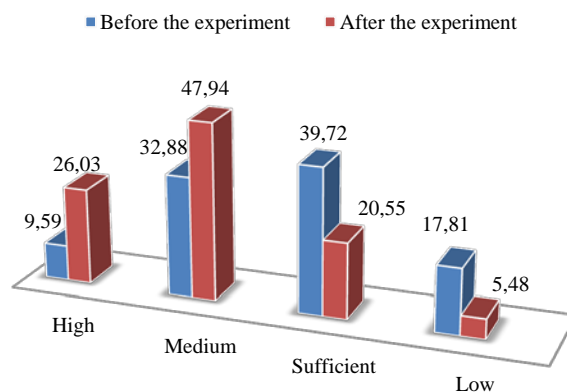
Figure 5. Dynamics of indicators of motivation for music and pedagogical activity in the experimental group before and after the experiment (in %)

The analysis of the results of the conducted experimental research gives grounds to claim that the proposed interactive methods in the context of online learning are effective in building professional identity of future music teachers. Changes in building professional identity were recorded using indicators of student motivation for music and pedagogical activities (motivational component) and academic performance (activity component). The reliability of the obtained data was ensured by the elimination of factors of possible influence, except for the experimental factor.

Analysing the results of the experiment, it should be noted that the students of the experimental group built a system of competencies for the use of interactive methods of online learning, as well as competencies related to reflection, analysis, generalization and finding ways to improve their professional skills as future music teachers:

- develop an outline plan of an online lesson of musical art;
- present materials on their musical and pedagogical activities, exchange their experience with classmates, structure discussions;
- use musical-didactic, plot-role and problem-modelling games and methods of involving students in playing in the process of online teaching of musical art in the future;
- conduct creative online music lessons using the e-learning system Moodle;
- use various types of web-quests in their future music pedagogical activity, for example, such as essay-rendering, quest-compilation (concert, virtual museum, music portfolio), development of a creative project, etc.;
- master a method of using blended learning models: Station Rotation Model, Lab Rotation, Flex, Flipped Classroom to combine traditional classes and on-online lessons;
- introduce an inclusive approach in the study of music, that is involve participants in the study of various musical genres and styles, adapting classes to different levels of abilities, interests and needs of participants, as well as establishing cooperation between them;
- use Internet resources to master production and composition with GarageBand for iOS, cloud applications Digital Audio Workspaces (DAW) Soundation and SoundTrap;
- organize distance learning communication and exchange of relevant information between participants who have common musical interests using the tandem method and the PeerToPeer method;
- determine the factors of success and the reasons for failures in their future teaching activities, structure their experience according to the criteria: "What parts of the lesson were successful? What succeeded and thanks to what? What elements of the lesson can be considered unsuccessful? What failed and for what reasons?";
- ability to generate and select ideas, as well as find ways to improve competencies in teaching Music Art;
- ability to develop and implement plans for personal development and improvement of pedagogical skills as Music Art teacher in secondary school.

These competencies, along with indicators of learning success and motivation for music and pedagogical activities, indicate an increase in the level of professional identity of students in the experimental group and gives grounds to conclude about the effectiveness of interactive methods in online learning of future music teachers.

5 Discussion

Comparing the results of our study, it is worth paying attention to the publications of E. Caldwell, who provides an overview of the experience of music education in the United States using a variety of online resources and practices for the development of musical creativity. (13) However, in our opinion, the focus of these articles on technology can lead to excessive enthusiasm for the technical side of the learning process. Therefore, the primary attention was paid in our experimental study to building professional identity of students as future music teachers, and a variety of web technologies were an effective means of this process.

We obtained Valuable methodological material for the development of the experimental program from the article by T. Ilieva, which provides examples of various interactive techniques for learning in a virtual classroom. (17) However, in our opinion, this work is theoretical and descriptive. Instead, in our study, preference is given to the experimental verification of the interactive methods we have developed in the context of online learning. Similarly, we can evaluate the publication of M. Gvyazdovskiy, which expressed ideas about peer-to-peer (P2P) platforms for knowledge exchange, learning in the format of games, Scheller's teacher training program developed at the University of Massachusetts Institute of Technology, services aimed at learning in the game format. However, the author does not provide experimental data that would indicate the effectiveness and conditions of application of the above methods. (18)

The work of K. Yee is worth noting, which collected 289 interactive teaching methods related to classroom-based, distance and online learning. These methods are classified according to the areas of the teacher's activity; student activities (individual, in pairs and groups), testing technology, use of social networks, mobile and tablet devices, game technologies, student presentations; brainstorming, interactive teamwork in chat, etc. (19) However, these materials are not accompanied by critical analysis and can only serve as a guide for further use in research and proving their didactic value.

The materials of the article by J. Gonzalez, which were tested in our study, are more practical in the context of our study. We are

talking about conducting various formats of structured discussions in teacher training. It is important that the author classifies these formats as those that require careful preparation, as well as those that can be used "with a rush" without preparation, as well as those that can be integrated with other learning strategies. (15)

Comparing our experimental research, it is worth paying attention to the thesis of Z. S. Dubovyi, concerning the development of independence of future music teachers in the context of distance learning. The author developed a comprehensive methodology for studying professional subjects by future music teachers in a distance environment. (Dubovyi, 2019) It should, however, be noted that the general approach to the training of music teachers prevails in Z. S. Dubovyi's thesis, while our research focuses on building competencies in the methodology of teaching music, which are the core for future music teachers.

Thus, it can be argued that our experiment differs significantly from similar studies on the training of future music teachers in terms of the originality of the approach, and reveals the potential of interactive methods for the training of future music teachers in online learning.

6 Conclusions

The experiment helped to prove that interactive methods of online teaching of future music teachers contribute to building their professional identity, which is manifested in a significant increase in motivation for music teaching and improving academic performance. The students of the experimental group developed competencies in the use of interactive methods of online learning, in particular, such as: development of outline plans for online music lessons, use of game methods in the e-learning system Moodle and online music resources, introduction of an inclusive approach in studying music, organizing distance learning communication and exchanging relevant information between peers using the tandem method and the Peer-to-Peer method.

It was found that students showed increased interest in interactive online learning methods during the first two months of the semester, while in the second half they preferred blended learning models such as Station Rotation Model, Lab Rotation, Flex, Flipped Classroom, etc. The topic of using Internet resources for production and composition using DAW cloud applications was of particular interest to students.

The results of the research can be used by teachers of higher educational institutions to improve methods of teaching professional subjects in training music teachers. In the future, it is planned to deepen the study of this topic in terms of the formation of students' competencies related to reflection, analysis and finding ways to improve their professional skills as Music Art teachers.

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Appendix

Methods of diagnosing learning and professional motivation of students

Test instruction

Rate the motives of educational and future professional activity on a 5-point scale according to the significance for you: 1 point corresponds to the minimum significance of the motive, 5 points — to the maximum.

Item No.	Motivational statements	Points				
		1	2	3	4	5
1	I study because I like the profession of Music Art teacher					
2	I study to ensure the success of my future professional activity as Music Art teacher					
3	I study to give answers to urgent questions related to the teaching music					
4	I want to make full use of my available talents, abilities and inclinations to the chosen profession — Music Art teacher					
5	I like to develop outline plans of Music Art lessons					
6	I like to choose methods of teaching Music Art					
7	I like to improve my pedagogical skills as Music Art teacher					
8	I like to teach Music Art at school					
9	I like to find interesting materials to motivate students					
10	. I like to test and evaluate students' knowledge and skills in Music Art					
	The sum of points for each option:					
	Total points:					

The answers to the questionnaire were rated on a five-point scale. The results of the survey were generalized by translating the quantitative scale into a qualitative one, that is according to the respondents the sum of 41–50 points corresponded to a high level of motivation, 31–40 — to an average level, 21–30 — to below medium level, and 10–20 — to low level.

INNOVATIVE TECHNOLOGIES AS A MEANS OF OVERCOMING SPEECH DISORDERS IN PRESCHOOL CHILDREN

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Abstract: The purpose of the present research is to evaluate innovative technologies in overcoming speech disorders in preschool children through the practice of using a mobile application as a tool for correcting speech defects. The research methodology is based on the concept of visual and phonological deficits in children with speech disorders. Individual and adaptive integrated approaches to reading and teaching children with speech disorders have been used. Corrective therapy has been conducted with application of interactive technologies in order to improve reading skills and perception of the material through better recognition. Meister Cody-Namagi - an adaptive multicomponent reading program, based on digital games, has been used in the research. The results demonstrate the difficulty in developing reading.

Keywords: children's speech disorder (disturbance), correction and therapy of speech disorders, digital environment of correction of disorders, innovative technologies of speech correction.
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1 Introduction

The health care and rehabilitation system requires the use of innovative technologies because of such problems, as: disability, aging, population growth, including children with various types of disorders that need correction. Despite the achievements of medicine in the sphere of the development of technologies for diagnosis and correction of defects in order to reduce the burden on medical staff and rehabilitologists, there is a shortage of language rehabilitologists who provide assistance to people with disabilities. The use of telemedicine technologies has partially solved this problem over the last ten years (Mashima & Doarn, 2008).

Innovative technologies are playing an increasingly important role in the development of new means of communication and language correction, especially for children with speech disturbances and disorders. Technological solutions provide a more effective organization of correctional work with children, ensuring the formation of new visual approaches and the use of alternative communication in order to improve everyday communication and integration of children into the society (Shane et al., 2012).

The integration of technologies into the correctional work of the teacher contributes to the formation of a new era of linguistic pathology, which will provide innovation and diversification of tools in the practical activities of the rehabilitation therapist. E-therapy resources and devices are increasing rapidly; consequently, they are making the therapeutic process more flexible and fun for children (Theodoros, 2012). Mobile applications as an element of e-therapy, a component of the mHealth concept and correction are increasingly used by teachers in their work with children with speech disorders. The basic problems faced by health care professionals include the lack of full knowledge of high-quality programs and technologies that provide the highest level of therapeutic benefit and effect. The dynamic growth of mHealth necessitates the development of effective systems for evaluating programs and their therapeutic benefits (Furlong et al., 2018).

The purpose of the present research is to evaluate innovative technologies in overcoming speech disorders in preschool children through the practice of using a mobile application as a tool for correcting speech defects.

2 Literature Review

The potential and effectiveness of technologies used in various strategies for the treatment and correction of children with speech disorders are actively discussed in the scientific literature. The following technologies should be highlighted, namely: Internet communities, robotics, assistive devices, interactive metronomes, automated instructions, video modeling, DVD instructions, and video instructions, biological probing, virtual reality, voice output devices, telecommunications, computer games, machine learning and algorithms for diagnosing children's speech disorders (Bölte et al., 2010). In the work of Chui et al. (2017), the issue of disease diagnosis through the tools of the intelligent health care system has been considered. Chui et al. (2017) identify new typical optimization algorithms and machine learning algorithms for the diagnosis of speech disorders (evolutionary, stochastic and combinatorial optimization) (2017).

The World Association of Speech Therapists (The World Association of Speech Therapists (WASLP), 2020) defines speech therapy as a science that develops prevention, supervision, diagnosis and rehabilitation of voice problems in conversation and writing based on a balance of theory and practice. The main goal is the rehabilitation of language disorders and communication process, development of tools of communication and interaction. Speech and language therapist diagnoses, prevents, evaluates, treats and studies speech and communication disorders (comprehension processes, expression of spoken and written language, nonverbal communication). Speech and language therapy of developed countries has been using information and communication technologies (ICT) for over 30 years in the diagnosis and treatment of children with speech disorders (Knight et al., 2013). In the early 1990s, therapists and speech therapists used innovations in order to create their own computer programs based on the specifics of the language. Virtual reality is one of the basic innovative technologies, which have begun to develop since the 1990s, including for improving the quality of life of people with speech impairments (Wainer & Ingersoll, 2011). "Use of Augmentative and alternative communication (AAC) technology has been shown to enhance the highest quality of life (QOL) for children as young as 32 months, … 3,4 children with autism spectrum disorder… The evidence base indicates that the life experience of people who use AAC is determined by their ability to achieve the highest performance communication possible" (Hill, 2010).

The development of the Internet has led to the emergence of speech therapy platforms. Jatkowska (2020) studies the improvement of articulation of children with speech disorders based on technology in the practice of speech and language therapy. The conducted pedagogical experiment testifies to the effectiveness of such practice in speech therapy for children (Jatkowska, 2020). Along with this, Newbutt, Sung, Kuo & Leahy (Newbutt et al., 2017) highlight the following challenges of technology, namely: immersion, escape from reality, environmental soundness and ethics of technology use, transfer of technology from laboratories to the real context. Knight, McKissick & Saunders (Knight et al., 2013), based on the analysis of studies on the practice of using technology in the work of speech disorders for 1993-2012, pay attention to caution in the use of technology in the practice of rehabilitation therapists because of low quality of experimental researches on efficiency of this component of therapy. Ploog, Scharf, Nelson & Brooks (Ploog et al., 2013) draw similar conclusions based on the analysis of multimedia computer technologies as a tool for the treatment of speech disorders and communicative, linguistic, social development.

Consumers of technologies and programs for the correction of speech disorders face the problem of finding high-quality products in speech and language therapy for children. Furlong, Morris, Serry & Erickson (2018) have evaluated the quality of 5000 programs and found that only 3% of products meet the quality evaluation criteria. The main disadvantages are as follows: (i) the unavailability of logical operators and the ability to use only one search term when using the program; (ii) constant change of the order of applications' lists in the online store; (iii) software products in the online store are placed according to popularity, not efficiency; (iv) high cost and unavailability of the program with low therapeutic quality (Furlong et al., 2018).

Speech impairment commonly occurs in children with hearing and speech impairments, autism (Bölte et al., 2010) and Parkinson's disease (Ramig et al., 2007). This disorder requires a large amount of practice and speech therapy, different approaches to therapy (medical, surgical, behavioral). "The common perceptual features of reduced loudness (hypophonia), reduced pitch variation (monotone), breathy and hoarse voice quality and imprecise articulation, together with lessened facial expression (masked facies), contribute to limitations in communication in the vast majority of these individuals" (Ramig et al., 2007). As a result, the pressure on speech therapists and rehabilitation specialists increases and requires the use of tools that will simplify the treatment process. Involving children in the therapeutic process increases the stress and the need for additional rehabilitation tools. Consequently, games are often used in practice; they give an impetus to children's correction during the game. Automation of the game process of correction is one of the effective innovative tools of the therapist. In the study of Nasiri, Shirmohammadi & Rashed (2017), a serious game has been developed and practically implemented, in which children can learn to speak specific words that they, according to the expectations of speech therapists, should know by the age of 7. The game contains an avatar controlled by a child using a language that moves in the game environment, for which the user is credited with coins. The constant reward, integrated into the world of fantasy games, seems to be the most attractive for children with special learning needs (Ke & Abras, 2013). An avatar is controlled by voice commands (Go, Back, Forward, Right, Left). The game reduces the level of involvement of the therapist or a teacher through a series of automated actions. The practice of using the game indicates an increase in the amount of time for correcting speech disorders, compared with the clinical approach; it is more effective due to the limited time of a speech and language specialist, a therapist (Nasiri et al., 2017).

Selouani, Sidi Yakoub & O'Shaughnessy (2009) have proposed speech support systems in the correction of French-speaking and English-speaking people with various speech disorders. The proposed supplementary systems are based on automatic speech recognition (ASR) and speech synthesis in order to improve the quality of communication. The systems are aimed at improving the intelligibility of pathological speech, providing maximum naturalness and closeness to the original voice of the person. New basic units, a new binding algorithm and grafting technique is used in the statements in order to correct feebly-marked phonemes. ASR responses are pronounced by applying a new speech synthesis system to convey a clear message to listeners. In order to confirm the effectiveness of this method, experiments

have been performed with four American speakers with severe dysarthria and two Acadian French speakers with speech sound disorders (SSD). The experiment proves 5% improvement in Perceptual Speech Quality Score (PESQ); more than 20% improvement is achieved thanks to speech synthesis systems that deal with SSD and dysarthria (Selouani et al., 2009).

3 Methodology

The concepts of visual and phonological deficits in children with speech disorders have been used in the present academic paper. The concept of visual deficit explains the emergence of dyslexia with impaired visual synthesis and analysis, difficulties in spatial and visual perception and reduced efficiency and visual attention. The concept of phonological deficit explains disturbance of speech as a consequence of oral speech disorders. Within the framework of this concept, in dyslexia, the difficulties of separating words into sounds are distinguished. Dyslexia is also studied as an oral speech and visual deficit, due to which reading impairments occur as a result of imperfect processes of words' formation in row and speech formation in row. Along with this, the psychological component of the reading structure is often omitted in the scientific literature. In this case, Esposito, Esposito, Likforman-Sulem, Maldonato & Vinciarelli (Esposito et al., 2016) prove the influence of cognitive and psychomotor functions on speech disorders. For instance, the process of diagnosing speech disorders is selective; it takes into account certain components of speech disorders, which leads to gaps in the correction of writing and spoken language defects. Therefore, a comprehensive approach to the correction and treatment of children with speech disorders has been used in the present academic paper forasmuch as it takes into account not only the external manifestations of such disorders, but also the psychological and physiological characteristics of the child. Technologies are used as a tool of methodology for diagnosing and correcting disorders. Previous investigations on the effectiveness of interventions in the education of children with special needs, based on technology, emphasize that approaches to reading should be individual and adaptive (Jamshidifarsani et al., 2019; Perelmutter et al., 2017). This can be achieved by applying advanced technologies, such as smartphones and tablets, which have so far been largely neglected (Jamshidifarsani et al., 2019). According to Sweetser and Wyeth's proposed GameFlow model, engaging reading approaches for children with speech impairments should contain challenges, rewards, and visible signs of progress that need to be integrated, but not simply added to learning content (Jamshidifarsani et al., 2019).

Psycholinguistic approach takes into account the study of dyslexia in children, their physiological, neuropsychological, psycholinguistic features. This approach considers the structure of reading both in terms of the physiology of disorders (analysis system, nerve conduction pathways responsible for reading of the cerebral cortex area) and the psychology of disorders (psychological functions and operations). Psycholinguistic approach is the basis of a new technology for the correction of speech disorders in children and diagnoses the deep mechanism of disorders. The reading structure based on this approach has been used as a method of diagnosis and correction of disorders in the present research (Figure 1).
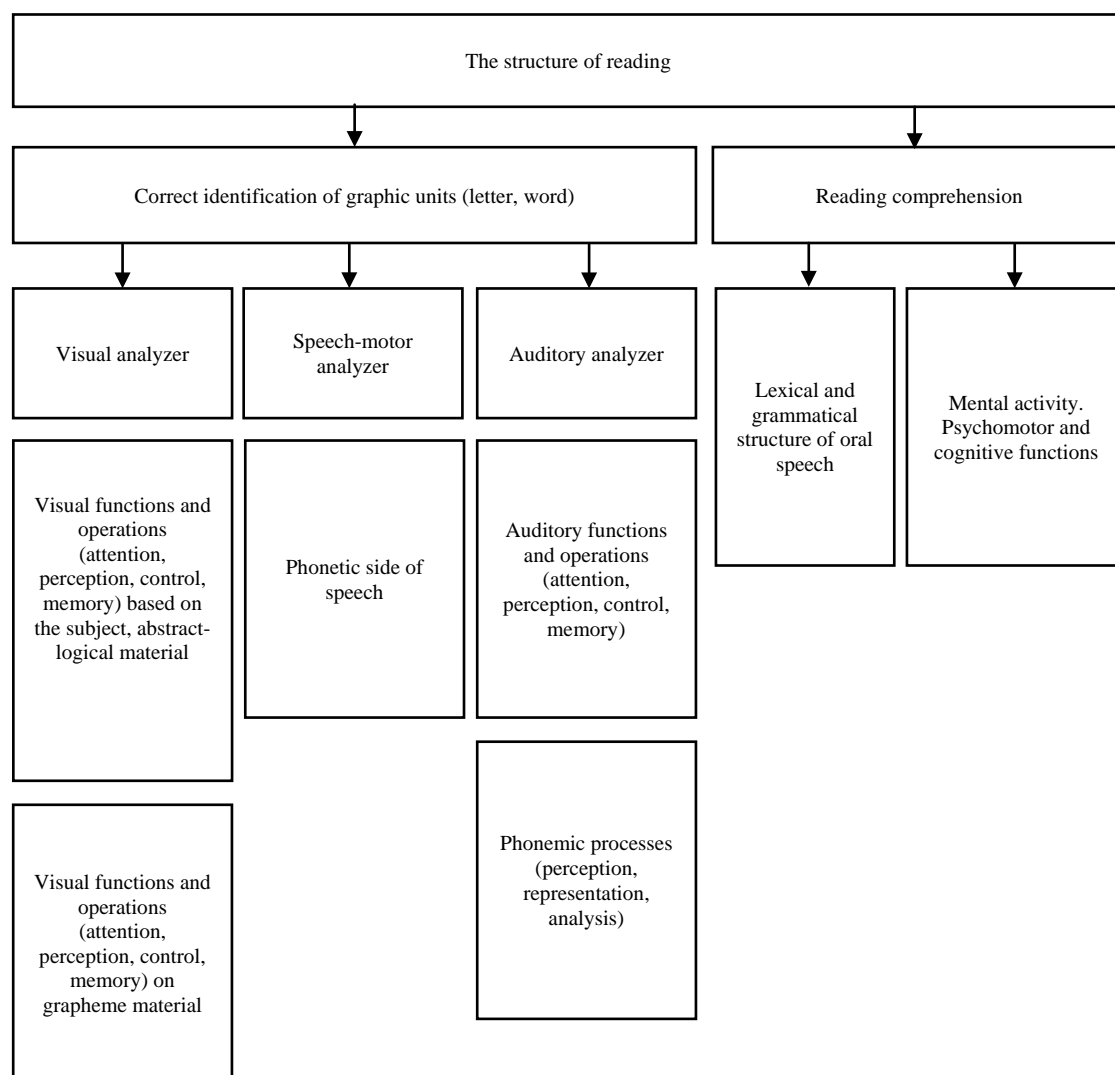
Figure 1. Psycholinguistic structure of reading
Source: compiled by the author.

Based on the proposed structure, an algorithm for identifying the mechanisms of dyslexic errors in children with speech disorders has been developed, namely:

1. Identification of errors, their amount, features of manifestation under different reading conditions.
2. Analysis of the detected errors according to the classification in the scientific literature.
3. Identification of different types of errors, the state of direct and inverse links.
4. Identification of the state of oral speech, taking into account the structure of defects in severe speech disorders, which are characterized by different levels of underlying pathology (primary disorder).
5. Analysis and investigation of features of analyzer systems' functioning which take part in reading through determining development of functions and operations of revealing.
6. Analysis of the status of the way of thinking.
7. Determining the level of correlation of dyslexic errors with the development of oral speech when comparing the specific manifestations of errors in reading and speaking.
8. Determining the level of correlation of dyslexic errors with the implementation of functions and operations of analyzer systems that provide reading processes based on the analysis of errors at different stages of the psychological structure of diagnostic tasks and comparison of the results obtained.

9. Identification of the complex structure of deviations as a mechanism of reading disorders in children with speech disorders.

Diagnosis of dyslexic errors and correction of speech disorders has been conducted based on methods of monitoring the learning process of children of 2-4 grades with various speech pathologies (dysarthria, alalia, rhinolalia, severe forms of stuttering). Children have been previously diagnosed with dyslexia, difficulties with reading skills. Quantitative and qualitative methods of statistical processing have been used to assess the effectiveness of correction by applying new therapy technology. Children have been divided into control (without speech and reading disorders) and experimental groups (with speech and reading disorders). The experiment was conducted at the boarding school №7 in Kyiv for children with speech disorders.

The object of research is the process of reading by junior students with severe speech disorders (SSD). The subject of the research is a methodical system of overcoming dyslexic errors in primary schoolchildren with SSD.

At the first stage of the research, children's speech disorders were studied, an experimental technique was formed, which included the identification of reading skills, reading errors, the nature of errors, stability and prevalence. Different reading conditions were used to identify a set of disorders, namely: with

the use of interactive technologies and without the use of interactive technologies. This affected the speed of reading, reading specially selected words in random and alphabetical order. The assessment of the quality of reading skills was carried out according to the criteria of awareness, correctness, speed, expressiveness, way of reading. At the second stage of the research, therapy was performed using interactive technologies in order to improve reading skills and perception of the material through better recognition. For this purpose, Meister Cody-Namagi program was used. It is an adaptive multicomponent digital game-based reading educational program developed by Meister Cody GmbH and the Dyslexia Research Group at the Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, University Hospital LMU M, Germany. This software develops phonological awareness, phonemic and grapheme coherence and word reading skills in primary schoolchildren with speech impairments. The program consists of three different modules (phonological awareness, phonemic display and reading of words) with a total of 22 tasks. The first module (phonological awareness) focuses on exercises aimed at improving basic phonological skills (for instance, segmentation and counting of syllables, phoneme identification, mixing and segmentation of phonemes, and differentiation between long and short vowels). The second module aims to display phonemes-graphemes and grapheme-phonemes. The third module consists of exercises on reading accuracy (for example, lexical solutions and word building exercises), as well as reading speed (for example, semantic display of words and display of words - images for a limited time period).

The training consisted of 30 training sessions; herewith, each session consisted of three predefined exercises. In the first half of the training schedule, three exercises consisted of one exercise from each module (phonological awareness, phonemes-graphemes matching and word reading accuracy). The second half of the training schedule centered much more on word reading activities; therefore, each session consisted of one exercise of one or two modules and two exercises of a word reading module, including reading accuracy exercises and reading speed exercises.

4 Results

The study of speech disorders in children indicates an insufficient level of established children's reading skills on all criteria of reading, namely: speed, type and correctness, intonation and expressiveness, perception of the material. Children with speech disorders are characterized by insufficient awareness and perception of the material, recognition and identification of words and images. From among children, 20,4% have read correctly, 44,9% have read 43% of the material with errors, 34,7% have made 80% of mistakes or omissions while reading.

Children with speech disorders are characterized by a slow pace of reading, mostly syllables and words, low intonation and high monotony, making errors during reading (replacement of letters, words, not reading all the phrases or words, adding letters, permutation of letters, semantic errors). The most pronounced disorders are replacements, additions or omissions, characterized by a small level of reduction.

In the course of the experiment it has been revealed a high level of correlation between the quality of reading comprehension and the number of the above mentioned errors; as a result, insufficient level of awareness of the written message is a consequence of incorrect reading. Situations of inaccurate recognition of individual printed characters, which have been recorded during the research, prove the insufficient level of the formed representation and relationships between graphemes and phonemes due to impaired speech development. Such reading skills of children with speech disorders require the development of an integrated method of correction.

Insufficient level of formed visual and auditory operations of children with speech disorders and dyslexia is closely correlated

with errors of different types during reading in accordance with disturbances of the analyzer system. Specific errors in dyslexia correspond to specific speech disorders.

Deficiencies in the functioning of speech and motor analyzers in some situations and in the presence of concomitant disorders, for instance, insufficient level of auditory control and phonemic processes, leads to the appearance of specific errors, which account for 14% of total dyslexic errors. Disorders of the articulatory system affect and cause approximately 58% of systematic specific errors during reading (when children concentrate on the sounds that are automated at this time, blocking of the sensory effect on the sounds nearby occurs, which is a mechanism of simultaneous heterosensory comparison). From among children, 28% with speech disorders have no pronunciation deficiencies. The analyzed dyslexic errors can be divided into the following three groups, namely: 1) directly related to sound disorders (high correlation); 2) indirectly related (average correlation); 3) have no connection with the pronunciation (no correlation).

Replacement of graphically similar phonemes during reading is due to lack of attention, visual perception and memory, control. Different levels of development of visual functions should be taken into account in the diagnosis and correctional therapy of children. The mechanisms of errors have been the basis for the division of children into two groups: the first group is characterized by a reduction in the quality of the visual analyzer system when performing tasks with application of easy-to-understand material; for the second group, the insufficient level of development of visual functions and operations has been observed at a higher level of perception (on the grapheme material). When analyzing these types of errors with basic speech disorders and pronunciation of sounds, the presence of such a mechanism in children with severe stuttering and clear phonetic speech has been revealed.

Impairments of sound and syllable analysis cause the replacement of acoustic-articulatory similar phonemes with the correct pronunciation at the time of the experiment. Additions or omissions in reading occur due to impaired sound and syllable analysis, reduced visual attention, control and memory to the provided grapheme material, which may be accompanied by reduced hearing control. Severe forms of stuttering and dysarthria in children most often cause these types of errors.

The feature of the dyslexia mechanism was found in younger schoolchildren, whose primary speech disorders were sensorimotor and motor alalia. The phonetic side of the oral speech of these pupils was characterized by a significant number of errors (replacement and distortion of sounds). During reading of primary schoolchildren with SSD, substitutions of letters were observed, the sounds of which were similar in acoustic-articulation characteristics, and letters that were graphically similar. The results of the research showed the so-called dual mechanism of disorder. On the one hand, the low level of auditory functions and operations prevents the formation of a sufficient level of phonemic processes, which causes replacements on the basis of acoustic articulation. On the other hand, this mechanism is complicated by a significant reduction in visual functions and operations (on types of material of various complexity), which leads to errors in graphic similarity.
Studying the features of the manifestation of dyslexic disorders during the performance of special tasks by pupils, developed taking into account the complex nature and interaction of visual, speech and auditory analyzers, complex psychological structure and level organization of phonemic functions, has made it possible to establish that different types of dyslexic errors may be based on different mechanisms. It should be noted that the most illustrative tasks that have been selected for processing by statistical methods can be used in practice by speech and language therapists as an express method of diagnostics of studying the disturbance mechanisms. The research has confirmed that the nature of dyslexic errors (replacements, omissions, additions) is connected with the lack of different levels of visual functions, auditory functions and phonemic

processes, the reduction and features of which reveal the peculiarities of dyslexia in younger schoolchildren with SSD. The author's corrective technique has been developed on the basis of the differentiated mechanisms of dyslexic errors revealed in young schoolchildren with SSD.

Considering that some errors occur due to systemic impairment of auditory functions and operations in children, the method of correctional therapy is aimed at the formation of these functions and operations during the performance of specially designed tasks. The main feature of the work lay in the fact that the implementation of auditory functions and operations was a priority, and did not take place at the background level of therapy (as provided by traditional methods). Ensuring the formation of auditory functions is determined by the indicator of transition from the leading to the background level of training and correction. In cases of reduced level of vision as a fundamental disorder, correctional training has involved the implementation of tasks aimed at their development on a similar principle. The flexibility of the methodology was provided by the ability to start correction from the existing level of formation of the psychological structure's components of reading in each individual case.

Experimental and formative training contained three correctional stages (for each class). The content of the work on each stage was correlated with the gradual load (complication) and the relevant analyzers which were used as a leading support. The individual level of reading skills (according to the class) and the specific mechanism of dyslexia inherent in individual groups of pupils (each pupil) were taken into account). In case of difficulties, the teacher - speech therapist had the opportunity to repeat the task in subsequent lessons or individual lessons with the pupil, using other material aimed at developing those functions and operations that have not reached the required level. The content of the experimental methodology consisted of tasks that were divided into two directions, namely: the development of auditory functions and operations and visual functions and operations.

The first correctional stage involved performing tasks without reliance on the child's own speech as a prerequisite for the development of hearing and vision. The material consisting of letters and elements of letters was the main condition for the implementation of tasks for the development of auditory functions and operations and tasks for the development of functions and operations of vision. Corrective work was aimed at: hearing development - perception, attention, memory and control (at individual lessons, if possible, the speech therapist excluded words that contain sounds that are pronounced incorrectly by the child from the tasks); development of phonemic processes using the standard pronunciation of a speech therapist and software products (phonemic perception, analysis and synthesis); development of the general level of visual functions and operations on simple abstract logical pictorial material (perception, attention, memory, control); development of the highest level of visual functions and operations (perception, attention, memory, control) on the material of letters and their elements. At the second correctional stage (medium level of difficulty), the work was aimed at: the development of auditory functions and operations - perception, attention, memory, control (the material contained sounds that are pronounced incorrectly by the pupil); development of phonemic processes - perception (based on the reference pronunciation of the teacher), analysis and synthesis (based on the child's own pronunciation) and imagination; development of hierarchically higher level of visual functions and operations (perception, attention, memory, control) on the material of elements of words (syllables) and individual words with addition of reading aloud. At the third correctional stage (the highest level of complexity) work was carried out aimed at improving auditory functions and operations); improvement of phonemic processes - imagination, analysis and synthesis only by imagination (excluding auditory, articulatory analytical systems) and the development of visual functions and operations (perception, attention, memory,

control) on the material of phrases, sentences and passages from the text.

5 Discussion

In the course of the experiment, complications have been revealed in developing reading skills and differences between children, despite the positive effect of digital game. Children were characterized by different levels of success. In 52,8% of children, speech and reading correction provided the fastest results, no dyslexic errors were revealed. 33,3% of children were characterized by the success of correctional therapy, however, with the need to continue learning in a game-based environment. 13,9% of children with speech impairments, diagnosed with the need for correction of acoustic-articulatory disorders due to insufficient level of development of hearing functions, required the maximal time for learning. Similar graphic signs of the letter required more time to correct due to a decrease in the level of visual functions (perception, attention, memory). A particularly difficult task was to increase the level of these functions based on the graphic material.

Thus, the digital environment as a whole has significantly improved speech and reading disorders, however, 13,9% of children need to continue their training activities. Correction of dyslexic errors should begin with the tasks of visual and auditory perception. In this case, the game environment, which significantly improves the level of attention and perception, provides a high level of involvement and motivation.

The results of the experiment also confirm the effectiveness of an integrated approach and taking into account the psychological component for the correction of speech and reading disorders. The approach outlined ensures the consistency of the educational process and control of the learning process.

The results of the study correlate with the conclusions of German scientists concerning problems with children's reading skills: "around 4–8% of children do not master the challenge of learning to read adequately and are diagnosed with a reading disorder, typically characterized by deficits in reading accuracy, fluency and/or comprehension" (Görgen et al., 2020).

The main purpose of this research is to evaluate innovative technologies in overcoming speech disorders in preschool children through the practice of using a mobile application as a tool for correcting speech defects. Digital game-based training has significantly improved the reading skills of children with speech disorders.

The present research correlates with the conclusions of Ronimus et al. (2019), and the data confirm that children with reading disabilities receive a number of benefits and advantages from digital learning based on games. The results also show that training can be conducted independently at home. This is important because of the difficulty of refreshing reading skills in children with speech disorders (Galuschka et al., 2014; Ronimus et al., 2019). Our results confirm the effectiveness of a comprehensive approach to improving reading skills using digital games, which is also discussed in the study of Jamshidifarsani et al. (2019). Jamshidifarsani et al. (2019) use a holistic approach to reading; it combines various components identified as effective ones for improving reading skills through digital game-based learning. It is important that the training has ensured the success of learning, which has been confirmed experimentally with the help of a computerized test that displays images of words. This test shows an increase in the fluency of reading words by children with speech disorders. The effects of transfer to non-digital text materials can be partially confirmed. Although the skills of reading simple and short words did not differ significantly between the training and control group after training, skills of reading complex and long words improved significantly for children who use a digital game-based reading program compared to children in the control group. The difference between two groups of children can be explained by the fact that fluency in reading words for high-frequency short

words develops faster than fluency in reading for low-frequency words, which are less common (Berends & Reitsma, 2006). As a result, the influence of such simple and short words took place in both groups, regardless of training. Thus, it should be assumed that reading of simple words was already relatively free to learn, while there were more opportunities for improvement for complex and long words (Heikkila et al., 2013). Significant improvement in reading complex words is especially important, given that children with reading disabilities process complex language units less efficiently (Spinelli et al., 2005); consequently, such complex language units are more difficult to learn to read.

This research correlates with the results of Görgen, Huemer, Schulte-Körne, & Moll (2020) on the potential to support reading skills in children with speech disorders through technological tools. Digital game trainings are useful for children with special educational needs, which provide improved productivity of reading verbal material and transferring effects to previously untrained words. Digital games motivate children to do their homework, and the use of a multi-component approach together with the flow principle is the most effective. The use of advanced technological tools in a therapeutic or educational context is also known as edutainment, learning, based on digital games or serious games (Ramig et al., 2007), which means the integration of motivational game features for educational purposes. Digital games increase the level of attention, concentration, motivation and involvement of children in learning.

6 Conclusion

Despite the positive effect of digital game, the difficulty in developing reading skills and the differences between children has been proved in the study. It has been determined that the digital environment as a whole has provided a significant improvement in speech and reading disorders, however, 13,9% of children need to continue their training. The game environment significantly improves the level of attention and perception; it provides a high level of involvement and motivation. The results of the experiment also confirm the effectiveness of an integrated approach and taking into account the psychological component for the correction of speech and reading disorders. Such approach ensures the consistency of the educational process and control of the learning process. Digital game-based training has significantly improved the reading skills of children with speech disorders. Children with reading disabilities receive a number of benefits and advantages from digital learning based on games. The digital learning environment can be organized independently at home, which is important because of the difficulty of refreshing reading skills in children with speech disorders. The results confirm the effectiveness of an integrated approach to improving reading skills using digital games. A holistic approach to reading combines different components identified as effective for improving reading skills through digital game-based learning. Such approach ensured the success of training, which was confirmed experimentally with the help of a computerized test.

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Primary Paper Section: A

Secondary Paper Section: AN

FOREIGN LANGUAGE PROFESSIONAL COMPETENCE OF STUDENTS IN THE PROCESS OF LEARNING ENGLISH FOR VOCATIONAL PURPOSES

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Abstract: In a globalized world, the need for foreign multilingual professionals in various fields of activity is constantly growing. The research methodology is based on a qualitative and quantitative analysis of the results of assessing the professional competence of students - future English teachers. The formative experiment was conducted in the research. A special set of exercises was performed, built on the basis of studying subsystem developed in England and Scotland. The results demonstrate a significant increase in the professional competence of students in various components and assessment criteria, namely: social and pedagogical conditions of activity, social-practical sphere of activity (English proficiency and practical readiness of students), social-psychological sphere of activity.

Keywords: professional competence of students, learning English for vocational purposes, communicative competence, professional communication skills.
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1 Introduction

In a globalized world, the need for multilingual professionals in various fields of activity is constantly growing, (Ho, 2020) and the development of professional competencies has recently become one of the basic educational areas (Gong et al., 2018). In the training systems of EU countries, the orientation of the educational process towards practical professional activity is localized, while a significant part of the study time is devoted to the practical training of specialists, as well as the individual work of students. This means a change in approaches to learning foreign languages for vocational purposes in the context of the formation of foreign language professional competencies.

The formation of foreign language professional competencies of students is a relevant subject of research in the scientific literature (Hamidova & Ganiyeva, 2020). Competence approach is becoming increasingly popular (Krupchenko et al., 2015). By the way, professional competencies are the basis for the formation of curricula in universities in order to develop the specialist, improve the skills of teachers (Gong et al., 2018). The basic competencies are as follows: communicative professional, (Sergeeva, 2014; Bezukladnikov et al., 2014; Valeeva et al., 2016) intercultural, (Nazarenko, 2015; Kostikova et al., 2018; Yang et al., 2018) sociocultural, (Vetrinskaya & Dmitrenko, 2017) as components of a set of competencies. For example, communicative-based learning provides the development of students' communicative competence (Ho, 2020). Along with this, the definition of language competence is among the main discussions in the scientific literature (Rydell, 2018).

In order to form professional competencies, new methods of learning English for vocational purposes are used. This is due to the significant impact of methods, education system and educational process, institutions on the competence of students. Skills formation is one of the basic learning objectives, while knowledge is not a top priority (Gong et al., 2018).

2 Literature Review

In the theory of the nineteenth century, competence was considered as a focus on abstract knowledge of linguistic structures (Gong et al., 2018). The first models of learning and testing contained such cognitive linguistic components, as: grammar, discourse, sociolinguistic knowledge; (Chomsky, 2014; Hymes, 1972; Canale & Swain, 1980; Bachman, 1990) however, cognitive non-linguistic, volitional and affective factors weren't taken into account. Cognitive skills involve the use of knowledge in solving real practical problems in professional activities. Herewith, these factors determine the ability of the individual to develop professional competencies. The following models took in consideration the social component: the socially oriented model of interactive competence (Kramsch, 1986; Jacoby & Ochs, 1995; Young, 2008; Hutchins, 1995) takes into account complex social processes and practices (Gong et al., 2018). These models explained in detail the numerous components of language features and became the basis for the construction of special and universal tests for determining the level of language proficiency. Thus, since the 1970s, the concept of competence has been expanding by outspreading universal grammar, grammatical knowledge through the use of language in social, cultural and communicative, strategic aspects (Cloudia Ho, 2020).

Globalization, the development of the concept of multiculturalism, the growing need for multilingual professionals led to a discussion concerning the concept of "competence". The same trends require the development of new models for the formation of foreign language professional competencies in learning English. Sociolinguistic theory understands this concept as grammatical and sociolinguistic knowledge, the ability to use them in practice in the process of socialization. R. M. Epstein and E. M. Hundert (Epstein & Hundert, 2002) define professional competence as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and the community being served". Professional competence among foreign speakers is an obstacle to accurate and effective communication. This leads to the risk of losing the right to hold certain positions in professional activities. For this very reason the assessment of professional competencies is an important element in determining the level of students' skills for practical activities.

Table 1. Measurements of professional competence

Measurement	Components
Cognitive	Key knowledge Basic communication skills Information management Use of knowledge in real situations Use of knowledge and practical experience Abstract problem solving Self-directed integration of knowledge Recognition of gaps in knowledge, lack of some knowledge Question generation Use of resources Learning through experience
Technical	Physical examination skills Procedural skills and abilities
Integrative	Use of standards and principles, strategies of professional activity Use of professional and basic knowledge Uncertainty management in a professional environment
Contextual	Working conditions Time efficiency
Relationships	Communication Conflict management

	Teamwork Teaching others
Ethical	Tolerance Emotional intelligence Respect towards other participants Responsibility to participants
Mental attitudes	Understanding of own attitudes, way of thinking, emotions Attentiveness Critical thinking Recognition and respect for the shift in emotionality and cognitive skills The desire to correct mistakes

Source: R. M. Epstein and E. M. Hundert (Epstein & Hundert, 2002).

The communicative professional competence is the key concept in theory and language education. In the scientific literature, the concept of communicative competence is defined as "a relational construct shaped by intersubjective processes" (Rydell, 2018). The success of the formation of professional competencies is considered as a consequence of personal responsibility and achievement of goals, leveling the processes of relationships as a basis for building communications (Rydell, 2018).

The discrepancy of developed principles of standards for the formation of professional competencies with existing skills, knowledge of professionals in working situations is also discussed in the scientific literature. Unforeseen circumstances arise in various areas of human activity, which significantly affect the professional competence and use of knowledge acquired in obtaining a foreign language proficiency (Kim & Elder, 2015). As a result of lack of professional skills, communication becomes insufficiently defined and ambiguous; it leads to misunderstandings and conflicts. Limited vocabulary and intelligibility of language is an obstacle to comprehension; the responsibility for misunderstanding is shared between the participants of communication. Therefore, the development of standards and adaptation strategies for foreign professionals as a decisive factor in the accuracy, efficiency and ease of communication is discussed in the scientific literature (Kim & Billington, 2018). Herewith, language skills, cognitive and non-cognitive abilities of the individual are important.

3 Methodology

The qualitative-quantitative methodology has been used in the present academic paper based on the method of structured interviews of students of control and experimental groups of universities. The experimental group included graduate students, future teachers of English: 1,2,3 groups - in total 60 persons. The control group consisted of graduate students, future teachers of English: 4,5,6 groups - in total 62 persons. The stages of the experiment have been divided into the following ones: 1. Ascertaining. 2. Formative. 3. Control. After the ascertaining assessment of professional competence, an experiment (formative stage) was conducted in order to increase the level of future competence; it lasted 9 weeks. In the framework of the formative experiment, students were invited to attend a special course "Teaching English teachers in England and Scotland" (Appendix A) and undergo teaching internship according to an experimental scheme, taking into account the ideas of the English and Scottish experience.

The ascertaining experiment made it possible to explore the competence of future English teachers, based on the best practices of England and Scotland.

The diagnostic technique consisted of three assessments:

- assessment of students' knowledge, skills and professional qualities;
- assessment of pedagogical skills;
- assessment of psychological characteristics and readiness of future teachers to work in a team of children.

The questionnaire "Model of an effective teacher" was used to conduct the survey. The results were processed in Statistica 22.0 software in order to compare the professional competence of group members prior and after the integration of tutoring and innovative methods of learning English. Innovative methods included the level of application of technical means in practice, the use of student-oriented approach in learning English.

Evaluation criteria included assessment of social-pedagogical conditions of activity (testing of pedagogical knowledge, abilities and level of innovation), social-practical sphere of activity (English proficiency and practical readiness of students), social-psychological sphere of activity (assessment of communicative competence and psychological readiness, maturity to professional activity). Based on the evaluation criteria, the level of professional competence of students - future English teachers has been determined. The evaluation criteria have been formed in accordance with the "Professional Standards for Qualified Teacher Status and Requirements for Initial Teacher Training in the United Kingdom"; they are divided into professional attributes, professional knowledge and understanding, professional skills.

The results of the assessment of professional competence's criteria have been classified using the following scale:

- 90-100 points – a very high level of qualification of an English teacher;
- 80-90 points – a high level of qualification of an English teacher;
- 70-80 points – an intermediate level of qualification of an English teacher;
- 60-70 points – a sufficient level of qualification of an English teacher;
- less than 60 points – insufficient qualification of an English teacher.

Determining the initial level of knowledge and professional competence of students in two groups has been assessed by using the coefficient:

$$KN = A/N \qquad\qquad (1)$$

where, KN - learning rate; A - the number of correct answers; N - the maximum possible number of points.

4 Results

Models of organization of students' internship in the universities of England and Scotland are arranged around the establishment of close ties during the practice between the head of internship from school - student - teacher.

The organization of training is carried out on an individual educational trajectory and a significant number of elective courses of academic disciplines. In the universities of England and Scotland, tutoring is widely used as a form of mentoring future professionals. Herewith, tutors are responsible for organizing the conditions for the formation and implementation of the individual educational trajectory of the student.

The results of the general average values of professional competence's criterion and the coefficient of training for the experimental and control groups are presented in Table 2.

Table 2. General average values of professional competence's criterion and the coefficient of training for the experimental and control groups of graduate students, future English teachers

No.	Study groups	Average values, points	Characteristics of the group's teachers	Coefficient of training, average value	Characteristics of the group's teachers

1	Experimental group	64,4	Sufficient level of qualification of an English teacher	0,62	Sufficient level of training
2	Control group	64,5	Sufficient level of qualification of an English teacher	0,63	Sufficient level of training

Source: compiled by the author.

Analyzing the results of the ascertaining experiment, it can be concluded that the qualification levels of students of the experimental and control groups are almost the same and need to be adjusted. If we analyze the structure of qualification levels in the experimental and control groups, we observe that 7 students have a high and very high qualification level (11,6% – of the total) in the experimental group; in the control group – the figures are similar – 6 students have a high and very high level of qualification (9,6% – of the total).

Furthermore, 28 students of the experimental group (46,6% – of the total) and 38 students of the control group (61,3% – of the total) possess pedagogical knowledge and skills for teaching at the intermediate and sufficient levels. Among the graduate students there are also students with insufficient qualifications - 25 persons – in the experimental group (41,8% – of the total) and 18 persons in the control group (29,1% - of the total), see Table 3.
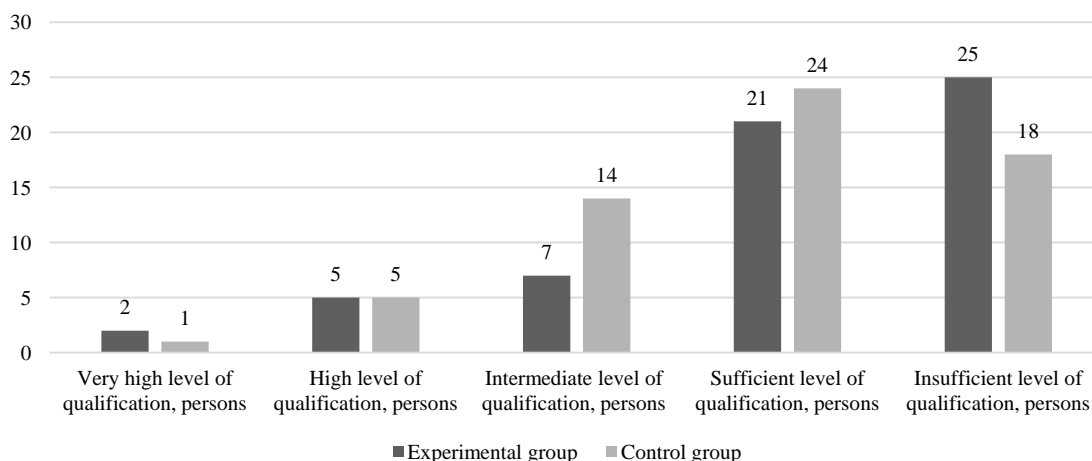
Table 3. The structure of qualification levels of graduate students, future teachers of English - experimental and control groups
Source: compiled by the author.

The average values of professional competence of the respondents prior the experiment (Table 4) differed in each group of participants. The professional competencies of the experimental group averaged 21,57 with different values for social-pedagogical, social-practical and social-psychological competencies. In particular, the lowest level of competence was observed in the context of the development of communicative competence and psychological readiness, maturity for professional activity. The most difficult level of competence has been identified in terms of social-pedagogical competencies of students: pedagogical knowledge, abilities and level of innovation. Actually, this means a gap between knowledge and communication practices and a willingness to use knowledge in professional activities.

Table 4. Average values of professional competence of respondents prior the experiment

		K_1	K_2	K_3	K
EG 1	Mean	26,941	23,659	21,171	71,771
	Standard deviation	5,839	4,920	5,480	9,513
EG 2	Mean	21,636	19,700	20,186	60,950
	Standard deviation	4,476	9,888	4,069	9,096
EG 3	Mean	20,607	22,097	18,134	60,838
	Standard deviation	7,099	5,343	6,934	11,093
CG 1	Mean	19,894	23,706	22,381	66,000
	Standard deviation	6,092	3,186	6,197	4,479
CG 2	Mean	20,304	23,385	21,500	65,200
	Standard deviation	8,660	5,295	6,197	11,305
CG 3	Mean	21,665	23,045	21,595	66,205
	Standard deviation	6,274	4,200	10,277	13,732

Source: compiled by the author.

At the 2nd stage of the research a formative experiment has been carried out and a special set of exercises has been performed, built on the basis of developed in the study of the education subsystem in England and Scotland. Experimental training has been conducted in natural conditions, based on the training material prepared by the author (guidelines and portfolio), simultaneously with learning foreign language program material; it lasted 9 weeks during the training course, and 8 weeks during the internship.

The basic goals of experimental training and internship of graduate students, future teachers of English were as follows:

1) To confirm the adequacy and effectiveness of the proposed teaching methods and practices of graduate students;
2) To confirm the effectiveness of learning English by graduate students who participated in the experiment and increase their pedagogical competence.

The methodical experiment was vertical - horizontal. The vertical nature of the experiment made it possible to draw a conclusion about the overall effectiveness of teaching methods in Britain, to compare the level of knowledge (qualifications of graduate students, future English teachers) prior and after the

experiment, to determine the level of formation of professional competence of the experiment's participants, after the experimental training.

The horizontal nature of the experiment centered around comparing two variants of sets of exercises for learning in order to increase the level of professional competence.

Invariable values were as follows:

1) the level of training of the experiment's participants;
2) composition of experimental groups (3 experimental groups - 60 persons);
3) duration of training (9 weeks);
4) assistant - the author of the developed methodology.

Experimental schemes have been used in planning the experiment, according to which the order of presentation of conditions (qualitative forms), or levels (quantitative variants) of the independent variable has been determined. The level of the independent variable is higher corresponded to its more complete representation.

The average values of professional competence of respondents after the experiment (Table 5) indicate an increase in professional competencies of students, in particular, in terms of the following skills, namely: social-practical, social-psychological.

Table 5. Average values of professional competence of respondents after the experiment

		K_1	K_2	K_3	K
EG 1	Mean	26,941	23,659	21,171	71,771
	Standard deviation	5,839	4,920	5,480	9,513
EG 2	Mean	21,636	19,700	20,186	60,950
	Standard deviation	4,476	9,888	4,069	9,096
EG 3	Mean	20,607	22,097	18,134	60,838
	Standard deviation	7,099	5,343	6,934	11,093
CG 1	Mean	19,894	23,706	22,381	66,000
	Standard deviation	6,092	3,186	6,197	4,479
CG 2	Mean	20,304	23,385	21,500	65,200
	Standard deviation	8,660	5,295	6,197	11,305
CG 3	Mean	21,665	23,045	21,595	66,205
	Standard deviation	6,274	4,200	10,277	13,732

Source: compiled by the author.

After the completion of the formative stage, a control has been performed to identify the level of professional competence of students after the experiment. The average values prior and after the experimental dimension - EG-1, EG-2, EG-3 and CG-1, CG-2, CG-3 are presented in Table 6. The results of the survey are given in Appendix E.1., E.2.

Analysis of the results of pre-experimental testing in the experimental groups has revealed that the control group prior the experiment has a more pronounced level of social-professional working conditions: K_1 EG – 23,0, less pronounced social-practical sphere of activity – K_2 EG – 21,8. In the control group, on the contrary, the social-practical sphere of activity has been the most pronounced one – K_2 CG – 23,1 and social-psychological sphere of pedagogical activity – K_3 CG – 21,8.

After conducting the formative experiment, there were significant changes in the subgroups of the studied graduate students. In the experimental group, the indicators of competence in the social-practical sphere of activity increased significantly – K_2 EG - + 8.6; much lower indicators of the social-psychological sphere of pedagogical activity – K_3 EG - +2.7.

In the control group, the growth of competence was much smaller than in the experimental, in particular, the social-psychological sphere of pedagogical activity – K_3 CG – +2,7, and indicators of the level of social-professional conditions of activity and social-practical sphere of activity increased slightly – K_1 CG – +1,9, K_1 CG – +1,6. The results of the survey are given in Appendix E.1., E.2. The average indicators of the students' learning rate prior and after the experimental dimension - EG-1, EG-2, EG-3 and CG-1, CG-2, CG-3, presented in Table 6.

Table 6. Average values of the coefficient of students' learning of the experimental and control groups according to the results of the formative experiment

Groups	Prior the formative experiment (X1) indicators			After the formative experiment (X 2) indicators			Increase in indicators indicators		
	KN_1	KN_2	KN_3	KN_1	KN_2	KN_3	KN_1	KN_2	KN_3
EG-1	0,71	0,67	0,62	0,95	0,93	0,72	+0,24	+0,26	+0,10
EG-2	0,63	0,57	0,61	0,85	0,85	0,63	+0,22	+0,28	+0,02
EG-3	0,6	0,65	0,59	0,78	0,88	0,74	+0,18	+0,23	+0,15
CG-1	0,59	0,69	0,65	0,62	0,73	0,78	+0,03	+0,04	+0,08
CG-2	0,59	0,68	0,63	0,66	0,76	0,68	+0,07	+0,08	+0,02

CG-3	0,63	0,68	0,63	0,69	0,73	0,74	+0,06	+0,05	+0,1

Source: compiled by the author.

The increase in the values of the learning coefficient raised as well as the indicators of the criterion of students' competence in the 2 analyzed subgroups. Accordingly, the increase in the competence of future English teachers in the experimental groups is: EG-1 + 17,4, EG-2 + 17,9, EG-3 + 20,7, and in the control groups the growth dynamics is three times less – CG -1 + 6,2, CG -2 + 5,9, CG -3 + 6,9. The results of the survey are given in Appendix E.1., E.2. The increase in the average values of the indicators of the criterion of students' competence of the experimental and control groups is observed, according to the results of the formative experiment. Accordingly, the increase in the proficiency of future English teachers in the experimental groups is as follows: EG-1 + 0,20, EG -2 + 0,17, EG -3 + 0,19, and in the control groups the growth dynamics is three times less – CG -1 + 0,07, CG -2 + 0,07, CG -3 + 0,08, see Table 7.

Table 7. Average values of the coefficient of students' proficiency of the experimental and control groups according to the results of the formative experiment

Groups	Prior the formative experiment (X1)	After the formative experiment (X 2)	Increase in indicators
	indicators	indicators	indicators
	KN	KN	KN
EG-1	0,66	0,86	+0,20
EG-2	0,60	0,77	+0,17
EG-3	0,61	0,8	+0,19
CG-1	0,64	0,71	+0,07
CG-2	0,63	0,7	+0,07
CG-3	0,64	0,72	+0,08

Source: compiled by the author.

The growth of all indicators of competence criteria contributed to the increase of the general indicator of competence in the experimental group of students. This indicates the distribution of students as a percentage, according to K_1, K_2, K_3 of the experimental and control groups, prior and after the experiment.

Percentage analysis of the level distribution of students in the experimental group, according to all indicators of the criterion of competence, revealed that after the experiment there were changes, namely: the largest number of students in the experimental group increased the indicators of competence in the social-practical sphere – K_2 EG - + 8,6, the social-psychological sphere of pedagogical activity – K_3 EG - +2,7 and the level of social-professional working conditions – K_1 EG - + 6, 3.

5 Discussion

The results of the study indicate the effectiveness of the methodology for the development of professional competence and integration of student-oriented approach to learning a foreign language. Similar conclusions are contained in the work, (Cloudia Ho, 2020) where it has been proven that due to this approach the level of productivity of foreign language learning increases. An English language course, focused on the result in the form of the formation of professional skills and an increase in the level of professional readiness, should contain communicative tools for the development of students' knowledge and abilities (Cloudia Ho, 2020). Participants are

generally positive concerning increasing the level of professional competence.

This research proves the importance of integrating methodology in order to increase the level of professional competence. B. Kuosuwan (Kuosuwan, 2016) also proves the importance of courses based on modern innovative technologies, which involve the use of authentic materials in accordance with the student's profession, contain topics related to professional activities. Curricula should include practical tasks and cases in accordance with the daily experience of a specialist in the subject area (Li & Lin, 2017). Materials should be as practical as possible; (Chen et al., 2016) they should provide stressful situations to test knowledge and the effectiveness of this knowledge in practice, forming a professional psychological readiness. Along with this, communication within groups should contain the maximum number of professional phrases. Testing provides an increase in the level of professional competence of students (Cloudia Ho, 2020).

The modern practice of learning a foreign language presupposes, to a greater extent, the formation of knowledge and skills (grammatical, linguistic ones); however, our study proves the importance of professional psychological readiness, which determines the effectiveness of communication in the professional activities of the future specialist. Similar findings are contained in the investigation of Yang, Xiang and Chun; (Yang et al., 2018) the scholars have revealed the importance of relationships and intercultural communication in professional activities. These components of professional competence are determined by the level of psychological readiness, which is formed during the use of the methodology of learning a foreign language in order to develop the level of foreign language competence. The development of competence involves the integration of the appropriate methodology into the educational process (Sergeeva, 2014). Competence in the sphere of professional activity is formed and developed through this methodology; however, support requires active use in practice.

Professional competence integrates the following competencies, namely: communicative professional, (Sergeeva, 2014; Bezukladnikov et al., 2014; Valeeva et al., 2016) intercultural, (Nazarenko, 2015; Kostikova et al., 2018; Yang et al., 2018) sociocultural, (Vetrinskaya & Dmitrenko, 2017) psychological. Testing future specialists for the level of knowledge and skills of these competencies is an important methodological stage towards ensuring the development of foreign language professional competence.

Focus on skills and knowledge, the possibility of their practical use in professional activities should be the ultimate goal of competencies' development. Herewith, it is necessary to take into account such contextual factors, (Gong et al., 2018) as: social, institutional, cultural ones; they determine the level of competence of the teacher, and accordingly - the effectiveness of learning English. Taking into account the factors of the working environment is especially important to reflect the differences in various methods of teaching a foreign language.

Competence should be considered as a relational phenomenon of social practice of interaction. Consequently, interaction forms professional competence. Foreign language proficiency means the possibility of independent use of knowledge acquired at the university, in practice, independent management of interaction in the society (Rydell, 2018). This research confirms the importance of independent use of knowledge for professional and psychological readiness of students for practical activities.

6 Conclusion

This research proves the importance of various components of students' professional competence in learning English. Psychological professional readiness, which determines the effectiveness of communication in stressful situations and the practice of the specialist is among the priority components. The use of innovative teaching aids and tools contributes to the

development of a set of competencies, namely: social-pedagogical (professional), social-practical (knowledge in professional activities, level of innovation) and social-psychological (communication and students' readiness).

The student - oriented approach provides not only the highest level of efficiency of the acquired knowledge in the course of use in practical activity, but also formation of communicative competence. As a result, it provides a higher level of productivity of learning foreign languages.

The basic purpose of learning a foreign language should include the formation of skills in order to use knowledge in stressful situations, especially in complex areas of human life (medicine, construction, shipping). Defining the purpose of learning is an important strategic aspect of disciplines related to learning foreign languages. The formation of professional skills is one of the basic strategies for learning English. Cognitive and non-cognitive skills are important additional goals in the language learning process.

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Appendix A
Criteria for assessing the formation of professional competence of future teachers in the United Kingdom, in accordance with the "Professional Standards for Qualified Teacher Status and Requirements for Initial Teacher Training in the United Kingdom"

Criteria	Criteria characteristic
Professional attributes	
Communications	
Relationships with children and youth Q1	Placing great hopes on children and young people, in particular ensuring their full educational potential and establishing fair, respectful, trusting, support and constructive relationships with them
Q2	Demonstration of the positive attitudes and behaviors they expect from children
Framework Q3	Be aware of the professional responsibilities of teachers and the statutory framework in which they work, as well as be aware of policies and practices in the workplace
Communication work with others Q4	Communicate effectively with children, youth, colleagues, parents and educators
Q5	Recognize and adhere to the contributions of colleagues, parents and educators in the development and well-being of children and adolescents, to increase their level of performance
Q6	The obligation of cooperation and business cooperation
Personal professional development Q7	Understand and improve their practice, and be responsible for identifying and meeting their professional needs
Q8	A creative and constructively critical approach to innovation; it needs to be adapted in practice when benefits and improvements are identified
Q9	Act on advice and feedback and be open to learning and mentoring
Professional knowledge and understanding	
Teaching and learning Q10	Possess knowledge and understanding of the range of teaching, learning and behavior management strategies, and know how to use and adapt them, in particular how to personalize learning and enable all students to realize their potential
Evaluation and monitoring Q11	Know the requirements for evaluation and mechanisms of the curriculum, including those related to state exams and, in particular, qualifications
Q12	Be aware of a number of approaches to evaluation, in particular, the importance of formative evaluation
Q13	Know how to use local and national statistics to assess the effectiveness of their training, to monitor those they teach, and to increase achievement
Subjects and curricula Q14	Possess the knowledge and understanding of children and provide their effective learning
Q15	Know and understand relevant legislative and non-governmental curricula
Literacy Q16	Pass a professional test on skills, literacy and information and communication technologies (ICT)
Q17	Know how to use literacy, ICT skills to support their learning and broad professional activities
Achievements and diversity	Understand how children develop: both students' progress and well-being depend

Q18	on development, social, religious, ethnic, cultural and linguistic influences
Q19	Adopt practical accounts of diversity and the promotion of equality, and the inclusion of special educational needs in their learning
Q20	Know and understand the role of colleagues with specific responsibilities, in particular - with responsibility for students with special educational needs and disabilities, and other individual learning needs
Health and well-being Q21	Be aware of the requirements of current legislation, national policies and guidelines for preserving and promoting the well-being of children and youth
Professional skills	
Planning Q22	Designing an effective learning sequence within lessons
Q23	Design opportunities for students in order to develop their ICT literacy and skills
Q24	Homework plan or other extracurricular activities in order to support students' progress as well as expand and consolidate their knowledge
Education Q25	Use a number of learning strategies and resources, including e-learning, demonstrate the ability to manage people's learning
Evaluation, monitoring and feedback Q26	Effective use of evaluations, monitoring and recording of strategies
Q27	Ensure timeliness, accuracy and constructive feedback from students to achieve progress and direction of development
Q28	Support and guide students, analyze their learning outcomes, identify their progress and identify their new learning needs
Review of teaching and learning Q29	Evaluate the impact of their teaching on all students and change their planning and school practices, if necessary
Learning environment Q30	Establish a focused and safe learning environment
Q31	Establish a clear framework for discipline to manage students' behavior constructively, promote their self-control and independence
Teamwork and cooperation Q32	Work as a team member, and identify opportunities to work with colleagues, which allows you developing effective practice with them
Q33	Make sure that colleagues who work with them are properly involved in learning support, and understand the role they will play

MODERN METHODS AND INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE SYSTEM OF TEACHERS' TRAINING FOR VOCATIONAL EDUCATION INSTITUTIONS

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Abstract: Various innovative methods and information and communication technologies (ICT) are used in the process of professional training of future teachers for vocational educational institutions. In the process of learning, students should not only master modern methods and ICT technologies, but also be able to apply them in their future training activities. This issue is also relevant for vocational educational institutions, where students acquire knowledge, skills and abilities in their chosen field of professional activity. As practice reveals, in vocational education institutions there is a significant discrepancy between the actual level of mastery and practical application of ICT by most teachers and the requirements for the level of their ICT competence.

Keywords: methods, information and communication technologies, higher educational institution, vocational education, teacher (educator), student, online learning.
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1 Introduction

The priority objective of pedagogical higher educational establishments lies in the formation of the personality of a specialist capable of implementing modern teaching technologies in practice in the modern information and educational space. Various innovative methods and information and communication technologies (ICT) are applied and used in the process of professional training of future teachers in order to transfer information and ensure interactive cooperation of the educator and the student. The training method is a general well-ordered activity of the teacher and student aimed at achieving the learning outcome. Educational technologies include specific procedures for the interaction of a teacher and students (psychological, general pedagogical, didactic, etc.), aimed at achieving the intended goals, taking into account the abilities and inclinations of students. From the standpoint of the information approach, the content of the learning process lies in the movement and transformation of educational information. Educational technologies, based on the teacher's use of personal computers, computer networks and other information and communication means to transmit educational information, are called information and communication technologies (ICT). Such technologies differ in the number of procedures, the variety of subject and subject-object relations, almost limitless ability and high speed of obtaining and processing information per unit of study time. Intensive implementation of ICT in the educational process requires the development of appropriate methodologies.

In the process of learning, students should not only master modern methods and ICT technologies, but also be able to apply them in their future training activities. This issue is also relevant for vocational educational institutions, where students acquire knowledge, skills and abilities in their chosen field of professional activity. Training of highly qualified and sought-after specialists directly depends on the level of competence of the educator, his ability to organize the educational process and

teach students the profession. Such a person should have strong fundamental knowledge and skills, use interactive teaching methods and ICT technologies in their professional activities. However, experience has proven that in vocational educational institutions there is a significant discrepancy between the actual level of mastering and use in practice of ICT by most teachers and the requirements for the level of their ICT competence.

Teachers' training for vocational educational institutions remains a complex research issue. A teacher in the field of vocational education should be a specialist who combines the qualities of a highly qualified worker and a professional educator. The relevance of the research is determined by the importance of solving the issue of training a teacher of vocational educational institution, who is able to organize educational activities at a high professional level, use modern methods and ICT technologies in the educational process in order to train highly qualified personnel.

The purpose of the academic paper lies in studying modern training methods and ICT, which are used by higher educational institutions in the process of training teachers for the vocational education system.

The research objectives are as follows:

1) to analyze modern methods used by higher educational institutions during training of future educators (including teachers of vocational educational institutions);
2) to reveal the features of ICT application in the course of specialists' training;
3) to study the features of distance learning using ICT in a pandemic COVID-19.

2 Literature Review

In order to reveal the theoretical aspects and features of the use of various educational methods and ICT by pedagogical universities, we will consider the scientific achievements of scholars who conduct their research on the subject of the academic paper.

I. M. Naumuk emphasizes the need for active use of ICT at higher educational institutions, which organically "fit" into the case-study method. She notes that the future computer science teacher should teach students to perceive and synthesize information from various sources, develop critical thinking, form skills, find, process and interpret information by using technical tools that require targeted training of such a teacher (Naumuk, 2018).

L. R. Kayumova and others classify the method of leadership formation and the method of extreme psychology as important methods of teachers' training. They note that communication and the proper emotional state of students - future teachers are the basic criteria for their behavior in conflict situations (Kayumova et al., 2020).

O. V. Razumova, E. R. Sadykova and R. R. Zamaliev consider the didactic model as one of the methods of training future teachers. According to scientists' viewpoint, the use of didactic methods by higher educational institutions along with information and communication technologies and metacognitive reflexive technologies for the training of future professionals will help expand their subject thinking (Razumova et al., 2018).

N. S. Bidabadi and others note that the mixed method is one of the modern methods used by higher educational institutions in the students' training. The essence of this method lies in the simultaneous orientation of the educational process on teachers and students. Based on the investigations on new training methods conducted in Iran, they argue that pure lectures have

lost their effectiveness, and the problem-oriented approach, in addition to improving the communication skills of students, not only enhances their critical thinking, but also contributes to the formation of educational skills and interest in learning (Bidabadi et al., 2016).

M. T. Floress, S. L. Beschta and K. L. Meyer, based on the results of the conducted studies, have come to conclusion that the praise method is one of the most effective methods that positively affects students' performance. This unconventional method is manifested through verbal praise, gestures, stimuli (Floress et al., 2017).

S. Assar notes that learning by using ICT will contribute to the deepening of knowledge and the formation of practical skills not only among students, but also among teachers, as they also improve their knowledge, skills and abilities (Assar, 2015).

K P. Hepp, M. À. Prats Fernández and J. Holgado García note that partner network is one of the types of ICT used by higher educational institutions. Relationships are established through partnerships between teachers of different higher educational institutions. In the course of the investigations conducted, scientists have come to the conclusion that ICT contribute to the transformation of education, in particular vocational education, updating the methodology and methodology of the educational process and increasing the digital competence of teachers (Hepp et al., 2015).

J. Pearson, based on the study of the role of ICT in teachers' training in Australian higher educational institutions, notes that information and communication technologies increase the training of potential teachers in the context of their vocational education, expand learning and improve their academic performance as a result of mastering special educational programs (Pearson, 2003).

S. Usun, considering the strategies used by higher educational institutions in Turkey in teachers' training programs, emphasizes the crucial role of ICT, which are implemented for: 1) Computer Assisted Education; 2) Distance Education (Usun, 2009).

T. Wang recognizes the importance of ICT for the training of teachers who receive professional education in the sphere of design, architecture and engineering. In this context, the use of ICT, according to the scientist's viewpoint, is aimed at creativity, social relevance, cooperation and communication (Wang, 2011).

N. Benitt, T. Schmidt and M. K. Legutke note the importance of digital media application in training students, thanks to which it is possible to manage educational platforms and participate in video conferencing, effectively use software for educational purposes (Benitt et al., 2018).

According to the results of the studies conducted, S.-K. Wang and others consider ICT as a cognitive tool that is used in the educational process of training teachers of vocational educational institutions, affects the level of their technological skills, the duration of professional development and features of the educational process (Wang et al., 2016).

D. Modelski, L. M. M. Giraffa and A. de O. Casartelli emphasize the importance of using digital technologies in the educational process, thanks to which teachers have the opportunity to share experiences on the specifics of vocational education (Modelski et al., 2019).

B. Bhattacharjee and K. Deb, note that the role of ICT in the educational process centers around gaining new knowledge by students and the development of new digital tools. From the point of view of scientists, higher educational institutions actively use such information and communication technologies as laptops, desktops, memory sticks, personal projectors to train students (Bhattacharjee & Deb, 2016).

O. Komochkova and O. Dorofeyeva on the examples of higher educational institutions of the UK identify key information methods used to train students - linguists, (Komochkova & Dorofeyeva, 2019) namely:

1) multimedia presentations of applications, web pages, websites, etc.;
2) conducting online discussions;
3) conducting web quests;
4) visual behavioral experiment;
5) development of computer projects;
6) cyber guide.

O. A. Khalabuzar in training of future linguists proposes to use the method of personality-oriented learning, which will create appropriate conditions for their professional growth, the ability to self-determination, self-realization, self-education and independence (Khalabuzar, 2016). In addition, O. Khalabuzar emphasizes the importance of using modern information technologies in the educational process, including Internet resources. Thanks to innovative technologies, future linguists acquire the necessary knowledge and expand their own thinking when obtaining professional education (Khalabuzar, 2019).

According to the results of the review of scientific sources, it can be claimed that the problem of teachers' training for vocational education institutions is insufficiently studied and requires more thorough research.

3 Methods

Realization of the purpose of the academic paper provides use of such research methods, as: method of experiment, descriptive method, method of abstraction, method of explanation, method of classification, method of analysis, method of generalization, method of comparison, method of modeling, method of observation.

The information base of the research is as follows:

1) Eurostat data, the use of which has made it possible to show the dynamics of the use of the Internet by students from European Union member states for online learning, searching for educational material, communicating with teachers or students through special educational websites, educational activities;
2) regulations and training programs for educators of vocational educational institutions, in particular Teacher subject specialism training, UCAS Teacher Training programs (for the training of teachers of vocational educational institutions in the United Kingdom).

4 Results

Currently, much attention is paid to the introduction of innovative training methods and ICT in the educational process in modern higher education.

The Organization for Economic Co-operation and Development (OECD), which brings together 35 countries, has conducted the International Survey on Teaching and Learning (TALIS).

In report, Teachers and School Leaders as Lifelong Learners, it has been stated that attracting the best and brightest to the profession will be essential to ensure that young people are given the skills they will need to thrive in tomorrow's world of work.

About 260,000 teachers and school leaders at 15,000 primary, lower and upper-secondary schools from 48 countries and economies took part in this third edition of the survey. This aims to help strengthen the knowledge and skills of the teaching workforce to support its professionalism.

Figure 1 shows the level of ICT use in the educational process in OECD member countries.
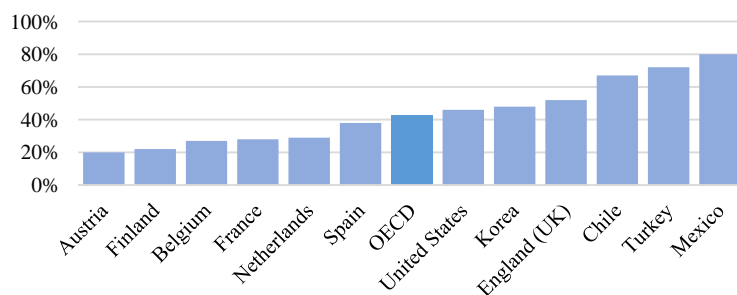
Figure 1. The use of information and communication technologies in OECD member countries
Source: TALIS 2018 Results Teachers and School Leaders as Lifelong Learners (Teachers, Teaching & ICTs. infoDev, 2020)

Table 1 shows data on the attitude of teachers to the use of ICT
in the educational process.

Table 1. The use of ICT in the educational process

Countries/economies where the indicator is **above** the OECD average
Countries/economies where the indicator is **not statistically different** from the OECD average
Countries/economies where the indicator is **below** the OECD average

	Percentage of teachers for whom the "use of ICT for teaching" has been included in their formal education or training	Percentage of teachers who felt "well prepared" or "very well prepared" for the use of ICT for teaching	Percentage of teachers for whom "use of ICT for teaching" has been included in their recent professional development activities	Percentage of teachers reporting a high level of need for professional development in ICT skills for teaching	Percentage of teachers who "frequently" or "always" let students use ICT for projects or class work	Percentage of principals reporting shortage or inadequacy of digital technology for instruction
	Chapter 4	Chapter 4	Chapter 5	Chapter 5	Chapter 2	Chapter 3
Alberta (Canada)	71	42	56	8	66	12
Australia*	65	39	67	11	78	12
Austria	40	20	46	15	33	18
Belgium	51	28	40	18	29	29
Flemish Comm. (Belgium)	56	34	45	9	38	16
Brazil	64	64	52	27	42	59
Bulgaria	58	50	63	23	44	26
CABA (Argentina)	53	50	61	20	64	39
Chile	77	67	51	17	63	13
Colombia	75	59	78	34	71	64
Croatia	47	36	73	26	46	25
Czech Republic	45	28	41	13	35	24
Denmark	47	40	47	11	90	13
England (UK)	75	51	40	5	41	15
Estonia	54	30	74	19	46	12
Finland	56	21	74	19	51	20
France	51	29	50	23	36	30
Georgia	45	47	67	33	53	29
Hungary	51	66	69	20	48	36
Iceland	46	26	63	21	54	5
Israel	58	47	69	29	52	40
Italy	52	36	68	17	47	31
Japan	60	28	53	39	18	34
Kazakhstan	75	69	90	30	66	45
Korea	59	48	61	21	30	24
Latvia	55	48	77	23	48	41
Lithuania	45	57	69	24	62	30
Malta	70	49	48	14	48	6
Mexico	77	80	64	16	69	44
Netherlands	49	29	61	16	51	16
New Zealand	59	34	73	14	80	18
Norway	46	36	58	22	m	11
Portugal	47	40	47	12	57	55
Romania	70	70	52	21	56	50
Russian Federation	69	72	75	15	69	32
Saudi Arabia	73	72	76	28	49	61
Shanghai (China)	79	63	77	30	24	10
Singapore	88	60	75	14	43	2
Slovak Republic	62	45	60	17	47	25
Slovenia	53	67	59	8	37	4
South Africa	62	54	53	32	38	65
Spain	38	36	68	15	51	21
Sweden	37	37	67	22	63	10
Turkey	74	71	61	7	67	22
United Arab Emirates	86	86	85	10	77	31
United States	63	45	60	10	60	19
Viet Nam	97	80	93	55	43	82
OECD average-31	**56**	**43**	**60**	**18**	**53**	**25**

* Participation rate of principals is too low to ensure comparability for principals' reports and country estimates are not included in the OECD average.

Source: TALIS 2018 Results Teachers and School Leaders as Lifelong Learners (Teachers, Teaching & ICTs. infoDev, 2020)

The findings show that little more than half of teachers across participating OECD countries received training in the use of technology for teaching, and less than half felt well-prepared when they joined the profession.

By the way, two-thirds of teacher's report that the most useful professional development they took part in focused on innovation in their teaching.

Schools appear to be recognizing the value of innovative teaching in responding to the challenges of the 21st century, according to the survey.

The vast majority of teachers say their schools are open to innovative practices and have the capacity to adopt them. On average across OECD countries in TALIS, 78% of teachers also report that they and their colleagues help each other implement new ideas. However, teachers in Europe are less likely to report such openness to innovation.

Only just over half of teachers (56 %) across the OECD received training in the use of ICT for teaching as part of their formal education or training. ICT training is lowest in Sweden (37%) and Spain (38%) and most common in Chile (77%) and Mexico (77%).

About 18% of teachers across the OECD still express a high need for professional development in ICT skills for teaching.

One in four school leaders report a shortage and inadequacy of digital technology as a hindrance to providing quality instruction.

The proper combination of traditional and innovative training methods helps develop cognitive interests and creative abilities of students - potential teachers of vocational educational institutions, prepare them for practical activities. It should be noted that the use of information and communication technologies in the educational process is more a means of learning than a means of computer literacy.

In the context of disclosing the practical aspects of training teachers for vocational educational institutions by relevant universities, it should be noted that the choice of a specific training method depends on the principles and specifics of obtaining education, the characteristics of educational approaches, including the orientation of the educational process and the nature of the use of educational materials.

In different countries, vocational education is based on different models: at the level of secondary or further education, in-service or as advanced training courses. With increasing frequency, higher educational institutions consider vocational education as a preliminary training, which makes it possible to reduce the curriculum at higher educational institution by partial transfer of academic subjects. Students can acquire the necessary skills and competences both in the workplace and in vocational schools. These features should be taken into account when choosing training methods by higher educational institutions in order to prepare future educators for the vocational education system.

In the practice of higher education, the following methods are the most common, namely:

1) Direct Instruction, which belongs to the standard strategy of training future teachers and involves the presentation of educational material through lectures. It is considered a low-tech method due to the passive form of knowledge acquisition by students.
2) Flipped Classrooms is a variant of blended learning, according to which the teacher provides material for self-study at home, and in the classroom there is a practical consolidation of the material The flipped class is characterized by the use of podcasts, vodcasts, and pre-vodcasting.
Podcast is a sound file (audio lecture) that a teacher sends to students over the Internet. Students can download podcasts to

their devices, both desktop and mobile, or listen to lectures online.
Vodcast is the same as a podcast, only with video files.
Pre-Vodcasting is appled when the teacher creates a vodcast with his lecture for students to get acquainted with the material prior the lesson, where the topic will be discussed.
Work in the classroom consists in clarifying questions that have arisen among students, performing practical and research tasks, tests and consolidation of the material passed.
This method is aimed at developing students' skills of critical analysis of information, effective implementation of new ideas and the formation of the future specialist's intercultural communicative competence.
3) The method of Kinesthetic Learning involves the acquisition of new knowledge by students or the expansion of existing through physical activity (role-playing games, competitions, excursions, projects, laboratory research, business cases) instead of listening to lectures. The information is better acquired due to physical interaction.
4) The method of Differentiated Instruction lies in creating different learning conditions for various groups in order to take into account the features of their contingent. In differentiated training, the teacher takes into account the individual psychological characteristics of students, forms differentiated tasks, uses the individual and group organization of educational activities.
5) In the Inquiry-based Learning method, the process of constructing knowledge by students takes place through the formulation of their own questions and the search for answers to them The method includes the following aspects:
A) encouraging future teachers to ask questions that are important to them;
B) finding ways to solve a specific problem;
C) identification of ways to solve the problem on the basis of self-conducted research.
6) Expeditionary Learning methods involves the personal participation of potential teachers in solving a problem by assessing the real situation and comparing it with the situation that should occur under normal conditions.
7) The method of Personalized Learning involves personalized training of potential teachers of vocational educational institutions in accordance with personalized curricula that meet their individual interests and skills.
8) The method of Game-based Learning aims to enhance the learning process through the use of special software (including computer games), which allows to interest students and increase the efficiency of the process of acquiring knowledge in general.

The case-study method (the method of specific situations) has proved itself positively in the training of teachers of vocational educational institutions. Case studies are events that actually have taken place in a particular field of activity and are described by the author in order to provoke discussion in the classroom, encourage students to discuss, analyze the situation and make relevant decisions. As a rule, the case contains not just a description, but also a certain problem or contradiction; respectively, in order to solve the case you need to analyze the proposed situation and find the best solution.

The advantages of the case-study method compared to traditional training methods are as follows:

- practical orientation - case-study makes it possible to apply theoretical knowledge to solve practical problems;
- interactive format - case-study provides more effective assimilation of material by students, as the main emphasis is not on mastering ready-made knowledge, but on their development;
- specific skills - case-study makes it possible to improve the soft skills that are needed in a real workflow.

Pedagogical innovations are related to interactive learning, which, first of all, is a dialogic learning, during which the interaction of teacher and student is carried out. The use of interactive training methods in the training of teachers of vocational educational institutions affects the efficiency and

effectiveness of the educational process; it is an integral part of all educational technologies.

The term ICT covers radio, television, the Internet, satellite and Wi-Fi systems, mobile communications, computer hardware and software, audio and video conferencing, virtual reality, social media, 3D printers, and more. All these technologies make it possible to find, analyze and transmit information, knowledge, skills, ideas and experience.

In order to provide quality education, higher educational institutions use the following information and communication technologies, namely: Distance Learning, Open Learning, Blended Learning, Flexible Learning, Mobile Learning, Open Educational Resources and Open Courseware, Massive Open Online Courses, Digital Repositories, Virtual Reality, Simulations, Games and Role Plays, Augmented Reality, 3D Printing.

Distance learning is a set of modern technologies that provide information transfer using ICT in an interactive mode from a teacher to a student. With increasing access to the Internet, computers, portable devices, and social networks, distance learning is virtually synonymous with e-learning or online learning.

Open learning uses distance learning methods and technologies and provides open access to knowledge to anyone. Open Universities (The UK Open University) operate on the principle of "quality of output" and not "quality of input", that is, they allow anyone to enter the university and then, if students meet the required standards, issue them a certificate or a diploma.

Blended learning is a combination of traditional forms of classroom learning with elements of e-learning using special information technologies (computer graphics, audio and video, interactive elements, etc.).

Flexible learning gives students the right to choose the term and means of study according to their needs and circumstances (traditional or blended learning, full-time or part-time education, accelerated or slow pace of the course).

Mobile learning means learning with use of mobile technologies. With laptops, MP3 players, laptops, mobile phones and tablets, learning is available from virtually anywhere with a mobile signal. Mobile learning includes the exchange of multimedia learning materials, web search and teacher - student interaction and student - student interaction.

Open Educational Resources (OER) and Open Training Programs (Curricula) (OCW) are educational materials, course modules, and entire courses in digital formats that are publicly available or on the Internet and have an open license. Teachers and students can legally and freely copy, use and share these resources for their own purposes. OER and OCW promote pedagogical innovations, avoid unnecessary duplication, and reduce the cost of production and distribution of educational materials.

Massive Open Internet Courses (MOOC), as a later stage in the development of OER and OCW, include online courses that are freely available on the Internet, video lecture notes, and materials from Internet forums, self-assessment and external assessment assignments.

Digital repositories provide a convenient way to store and reuse digital materials for educational purposes. They are typically used to store OER, OCW, and MOOC.

Virtual reality (VR) makes it possible for students to learn accurate and realistic 3D models of machines, equipment in safe, convenient and better controlled environments.

ICT-based role-playing games are used in the learning process to simulate certain situations and involve students in imaginary or real situations that require the application of acquired knowledge and skills to solve the problem.

Augmented reality (AR) visually connects the world of real objects and the virtual world reproduced on a computer. It involves the implantation of barcode objects that open web pages on students' tablets and smartphones to superimpose these objects on digital information. This technology has significant potential in distance, independent and blended learning.

3D Printing technology makes it possible for students to download 3D projects and print them on 3D printers or, if necessary, create designs, print and recycle them.

Students use ICT in higher educational institutions to achieve educational goals, increase digital literacy and competence, and teachers apply them for administrative, communicative and educational purposes (Figure 1).

The purposes of using ICT in the educational process are as follows:

1) assessment of students' academic achievements;
2) conducting individual training for particular students, or for all students, in the case of distance learning;
3) providing access to Internet resources;
4) ensuring cooperation and relationships between higher educational institutions, between teachers, between teachers and students, between students.

The use of ICT is effective when the teacher transparently challenges students - future teachers, conducts a variety of discussions and debates in order to develop their critical thinking skills. In this context, the role of ICT lies in ensuring the transition from traditional methods of organizing the educational process, focused on the teacher, to methods focused on students - future teachers of specialized educational institutions.

Interactive digital boards, information and electronic devices designed for the educational process, personal computers, tablets and laptops, etc. are actively used in the educational process. The creation of e-learning resources is due to the need to use video and audio images in order to illustrate the content of sections of special disciplines, rapid change of content in accordance with new advances in science and technology.

Information and communication technologies are used by higher educational institutions in order to strengthen the practical component of training future teachers of vocational educational institutions. In today's changing world, where the competition is getting stronger every day, the lack of practical experience and skills of students can be a serious obstacle to their employment and career growth. In this regard, modern training methods aimed at developing certain students' practical skills are becoming increasingly popular. Therefore, an important component of the educational process at the university is pedagogical practice, which develops the teaching abilities of students, brings the process of professional training of future teachers of vocational educational institutions to real training activities, positively affects their professional development, motivation to learn, forms professional consciousness.

Information and communication technologies used in the educational process by higher educational institutions also influence the formation of digital literacy of students - future teachers. The use of special applications helps improve thinking, development of original and creative abilities and skills.
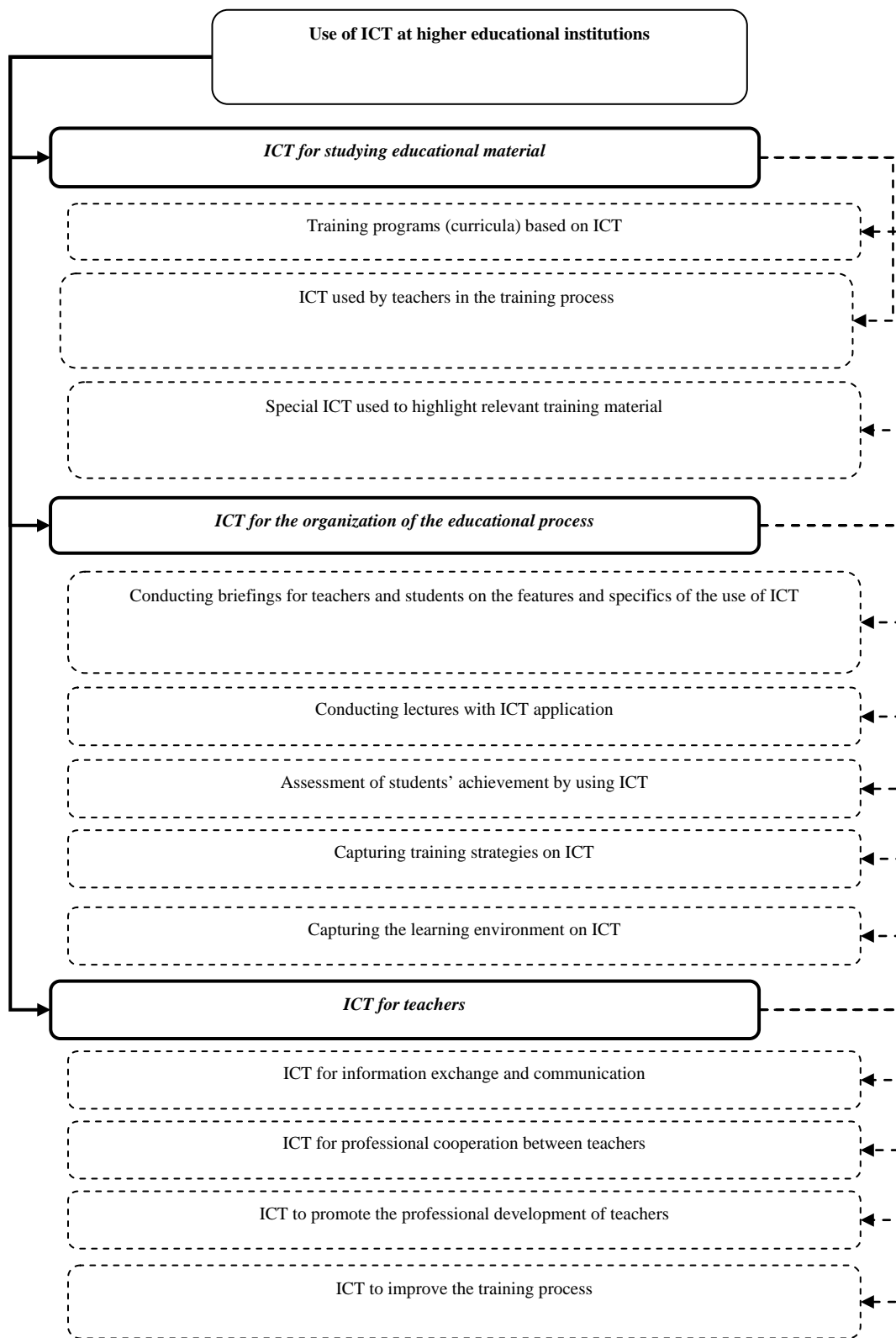
Figure 1. Objectives of the use of ICT by higher educational institutions in the training of teachers for vocational educational institutions (Source: Compiled by authors based on the data of PISA 2021 ICT Framework. Organisation for Economic Cooperration and Development (PISA 2021 ICT Framework, 2019).

It should be noted that higher education has undergone drastic changes in connection with the COVID pandemic. Under the conditions when the whole world is gripped by a pandemic, it is modern ICTs that allow students and teachers to stay connected and support the educational process. ICTs make it possible to transfer learning into electronic format, replace traditional classroom learning with distance learning, and, thus, minimize physical contact between people and reduce the likelihood of infection transmission.

Learning has been transformed into a hybrid form: classrooms are replaced by video broadcasts; teachers record their own

lectures or use courses and other online resources to which access is open. For instance, Coursera has made all its courses free of charge for the pandemic period, as well as numerous online platforms and individual universities.

During distance learning and using ICT tools, it is advisable to use the following forms of organization of the educational process, namely: synchronous online learning, in which the teacher and the student use digital platforms to communicate in real time, and asynchronous online learning, where students master the material at their own pace and can access the recorded content of multimedia courses when it is most convenient for them. Synchronous online learning should be carried out in the format of:

▪ online lectures (webinars), which provide one-way broadcast of video images, content of digital documents and the desktop of the teacher's computer;
▪ online seminars (video conferencing), which make it possible to provide two-way communication and ensure the same technical opportunities for all participants (a teacher and students).

Despite the convenience of asynchronous learning for students, synchronous learning is considered more effective, forasmuch as it provides feedback, increases the level of a student's motivation and obliges him to attend the lesson.

The massive emergency introduction of distance learning technologies was the result of force majeure due to the fact that the reproduction of even familiar forms of education in a digital environment requires special skills as teachers (acquaintance with digital solutions, a new format of interaction with students, etc.) and from students (additional efforts on self-organization, orientation in information flows, etc.).

The transition to online learning was carried out in the shortest possible time. However, as practice shows, the development of an online course takes an average of 6-9 months, and the skills of teachers using online platforms are formed during the first two courses. Therefore, one should not expect high results in higher educational institutions from the forced introduction of distance learning.

In the course of training future teachers of vocational educational institutions in the distance mode, higher educational institutions should take into account the practical orientation of the main vocational training programs (curricula). Training and production internship conducted in production conditions at enterprises, demonstration exams (the main form of final tests) are contact forms of training, and they are quite difficult to be transferred into online mode. Therefore, distance learning technologies under quarantine conditions should provide the use of specially equipped premises or their virtual counterparts, which would enable students to acquire general and professional competencies; work in "virtual groups", including using systems - conference - communication.

In contrast to secondary schools, where the structure of basic educational programs is limited to a narrow list of disciplines, curricula of vocational educational institutions that provide training in a wide range of professions and specialties include several hundred didactic units. Consequently, the objective of the higher educational institution is to develop quality training materials for the system of vocational education and their implementation in the educational process.

5 Discussion

In the process of training teachers for vocational educational institutions, higher educational establishments use a variety of innovative teaching methods, namely: the case-study method, the method of implementing a dual education system, the method of leadership formation, method of extreme psychology, traditional lecture method, method of inverted class, method of training on the basis of requests, method of expeditionary training, method of individual training, method of training on the basis of games.

B. R. Joyce and B. Showers, in addition to the traditional lecture method, distinguish the method of coaching, which is applied by higher educational institutions in the training of future professionals (Joyce & Showers, 2002). Coaching in the educational process is used to provide help for students, support their intention to acquire knowledge independently, promote maximum use of students' potential, develop skills, better perform their learning responsibilities and, as a result, achieve the desired outcomes.

S. Udartseva and others prove the advantages of dual learning, which involves parallel study at the university and practical consolidation of theoretical material in the workplace. The authors note that educational institutions that have experience in introducing a dual form of education, confirm that this training method helps get a decent education; it provides both knowledge and skill and guarantees employment; it helps graduates adapt at the enterprise and self-actualize in their professional activities. In turn, the company receives qualified experienced professionals after graduation (Udartseva et al., 2018).

A. Lorenceau, C. Marec and T. Mostafa emphasize that ICT literacy and the ability to use these technologies in the knowledge-based economy is a key skill of the 21st century. A successful student is the one who can use technology as a tool for research, management, analysis and transmission of information, being flexible and able to apply new technologies as they arise (Lorenceau et al., 2021).

S. A. Varela-Ordorica and J. R. Valenzuela-Gonzalez have conducted a survey to determine the attitude of future teachers to the use of ICT in the educational process. The results of the survey have revealed that the use of ICT promotes self-regulatory learning, social interaction between future teachers, the development of educational networks (Varela-Ordorica & Valenzuela-Gonzalez, 2020).

An educator of a vocational educational institution should be proficient in possessing methods of enhancing the communicative and cognitive activity of students; he should be able to use information and communication technologies to create information products and organize information processes related to solving professional tasks for training mid-level specialists and skilled workers in an information society.

It should be noted that although many teachers use ICT in the educational process, however, the problem lies in the fact that it is carried out unsystematically, that is, depends on the mastery of a technology by the teacher. At the same time, a high information culture of the teacher is a necessary condition for professional pedagogical activity, which involves the use of modern technical means of teaching and educational technologies, and if necessary, e-learning, use of distance learning technologies, ICT, e-learning and information resources.

In order to provide quality training to students of vocational educational institutions, it is necessary to train and retrain teachers in terms of their use of modern ICT in the educational process.

While studying the issue of teachers' training, H. Sari and R. Konuk Er note that the Applied Master's Degree Program has been developed in Turkey, according to which a comprehensive qualified training of future teachers of vocational (professional) educational institutions is carried out. Teachers who have passed this program, in the future will be able to carry out qualified professional activities in vocational educational institutions (Sari & Konuk, 2016).

There are programs for the training of teachers of vocational educational institutions in each country; various teachers' training courses have been developed and practiced.

In particular, there is the Teacher subject specialism training program in the UK; it trains teachers of vocational educational institutions in the following areas: mathematics, physics and modern foreign languages. Subject knowledge under this program is acquired only by non-specialists, that is, potential teachers who do not have higher education in the specialization provided for in Teacher subject specialization training and / or teachers who have decided to return to professional activity (Teacher subject specialism training (TSST), 2020).

In the United Kingdom, in addition to Teacher subject specialization training, UCAS Teacher Training is also provided; it offers a number of training programs in accordance with the educational regulations of England, Wales or Scotland. UCAS Teacher Training also offers postgraduate teachers' training. Upon completion of the curriculum, applicants receive the status of a qualified teacher - QST (UCAS).

There are ample opportunities for gaining practical experience for the development of ICT competence of teachers of vocational educational institutions. The teacher can improve their skills through self-education, as well as full-time and distance training courses. Programs (curricula) of such courses, as a rule, are focused on formation of positive motivation to use ICT in educational process; mastering the methodological bases of preparation of didactic materials by means of applied programs; use of the Internet and electronic educational resources in pedagogical activities.

Thus, the feasibility of using innovative teaching methods and ICT in pedagogical higher educational institutions is beyond doubt; it justifies its main pedagogical goals. If the use of modern technologies is not episodic, but is carried out systematically, the effectiveness of training will increase. The use of ICT in the educational process allows maintaining a high level of motivation of students - future teachers of vocational educational institutions and developing their professional, intellectual, creative abilities, as well as contributing to the development of communication skills in working with information.

6 Conclusions

According to the results of the study, it has been determined that higher education institutions use a significant number of innovative methods and modern ICT in the training of potential teachers of vocational education institutions in the educational process. The use of innovative training methods improves the process of learning the material; these methods teach students to think and apply in practice the knowledge gained in lectures.

Investigations prove that the maximum efficiency of the use of information and communication technologies is to a great extent ensured by the high qualification of teachers who conduct the educational process.

It has been established that information and communication technologies are used by universities in the context of training teachers of vocational educational institutions for educational, administrative and communicative purposes, for studying educational material and for conducting the learning process.

The results of the conducted analysis indicate that the Internet in the educational process is used to carry out online learning, search for educational material, communicate with teachers or students through special educational sites, and educational activities.

A review of the dynamics of Internet use by students of European Union member states has revealed that students in Finland, Estonia and Sweden use the Internet most of all to search for educational material, communicate with teachers or students through special educational sites and for learning activities. It should be noted that the Internet activity of students is growing in dynamics. It has been found that in 2019 the highest rate of students' use of the Internet for educational

activities was in Finland (94% vs. 89% in 2015) among the member states of European Union. It has been determined that high rates of Internet use by students were in Austria, Estonia, Spain, Latvia, Lithuania, Malta, the Netherlands, Portugal.

It has been found that students use the Internet least of all for online learning, especially in such countries as Latvia, Malta, Poland and Slovenia. Herewith, the highest rate of Internet use for online learning was in Finland (55% in 2019).

It has been proven that the use of ICT in the educational process of higher educational institutions has benefits for both students and teachers. In particular, systematic use of ICT gives the opportunity to form students' ability to work with information; future teachers of vocational education develop their communication skills, creativity, independence, the ability to make optimal decisions. Active use of modern ICT makes it possible for the teacher to optimize the time spent on the educational process, increase the level of general culture in working with information, technological tools and students. In addition, the quality of the educational process increases, which makes learning and communication more comfortable and interesting for the student. The use of ICT allows increasing the motivation of students to educational and cognitive activities. The availability of almost any information makes it possible to search and obtain the necessary information when performing various educational tasks.

It has been noted that in the context of a pandemic, when preparing future teachers of vocational education institutions, it is advisable to use such forms of organizing the educational process using ICT tools: synchronous online learning and asynchronous online learning. Synchronous online learning should be carried out in the format of online lectures (webinars) and online seminars (video conferencing systems).

When training teachers for vocational educational institutions, universities should take into account their specifics and special requirements for distance learning technologies in quarantine, in particular, the use of specially equipped premises or their virtual analogues, which would make it possible for students to learn general and professional competencies; work in "virtual groups", including the use of video conferencing systems.

Despite the fact that modern training methods and ICT are actively implemented by higher educational institutions in the training of students, the issues of training for the vocational education system are insufficiently covered. Taking into account its features and the fact that vocational education plays an important role in the social and economic development of states, further research can be aimed at studying the world experience in training teachers for institutions of the vocational education system, advanced training of teachers in the field of ICT in accordance with international standards and the development of special recommendations and training courses aimed at certain groups of subjects of the educational process - administration, teachers of general disciplines, educators of professional disciplines, masters of industrial training, etc.

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Primary Paper Section: A

Secondary Paper Section: AM

EUROPEAN EXPERIENCE OF PROFESSIONAL TRAINING OF PRIMARY SCHOOL TEACHERS

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Abstract:At the present stage of the society development there is a reform of education at the global level, unification of national educational standards, diversification of educational models, improvement of learning technologies.At the same time, each country seeks to enrich its historically accumulated educational potential by actively studying the innovative experience of organizing and content of education in other countries.The purpose of the research:to study the features and trends of professional training of primary school teachers in Great Britain, Sweden and Germany.The methods of the research: theoretical analysis of scientific literature, analysis, synthesis, generalization, grouping, description, comparison. Results. It has been revealed that there is a two-stage structure of professional training of a future primary school.

Keywords: professional (vocational) training, primary school, education system, bachelor, master, education, teaching internship (practice).
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1 Introduction

Analysis of the state and dynamic development of European educational systems shows that the current stage of social advancement is an era of global education reform on a world-wide basis. The unification of national educational standards, diversification of educational models, improvement of learning technologies is carried out. However, at the same time, each country seeks to enrich its historically developed educational potential by actively studying the innovative experience of the organization and content of education of other countries.

In this context, the issue of professional training of primary school teachers is raised in a new way; forasmuch as it is the primary school that guides not only students' basic knowledge, but also moral and personal qualities. The primary school teacher teacheschildren, organizes their leisure, recreation and creative development. It often depends on the primary school teacher how the child will study in the future and how he / she will be socialized in the children's team. Therefore, the quality of education of the future primary school teacher and the level of his professionalism are criteria for the effectiveness of the process of higher pedagogical education, its compliance with the needs of modern society for the formation and development of professional and personal competence of the specialist.

European countries are facing the issue of modernizing the training of teachers, including the training of primary school teachers, in accordance with the challenges of the time; consequently, each of the countries is taking certain steps in this direction.

The purpose of the research is as follows: to investigate the features and trends of professional training of primary school teachers in the UK, Sweden and Germany.

The research objectives are as follows:

1) to get acquainted with the structure of the national education systems of Great Britain, Sweden and Germany

and the peculiarities of the functioning of primary school in these countries;
2) to consider the basic principles of professional training of primary school teachers in Great Britain, Sweden and Germany.

2 Literature Review

The study of theoretical aspects of professional training of primary school teachers shows that this issue is extremely diverse and relevant; it is investigated by numerous scientists.

P. Mussetnotes: "Initial teacher's education is the first entry point to the teacher's professional career, it plays a fundamental role: the way it is organized determines both the quality and the quantity of teachers. Its content allows giving to all teachers in a particular context (the national one for the majority of the OECD countries) a set of characteristics and skills, that they will need in order to perform their work correctly. To give the same initial education to all teachers is the way in a country to achieve uniform level of qualification between all school teachers, and to control the overall provision of education in this country" (Musset, 2009).

Villegas-Reimers E. considers the positional and functional elements of the teacher's development. Positional development is a process of modification of the teacher's attitude to his work, functional one means a process of improving his professional activity. Positional development combines intellectual and motivational aspects, and functional development combines procedural and productive aspects (Villegas-Reimers, 2003).

L. S. Shulmanstudies the sources of knowledge on which the future teacher's professional activity is based: the content of the discipline he will teach; materials necessary for the organization of training; investigation of various social-cultural phenomena that affect the educational process; practical experience (Shulman, 2005). J. L. G. Ortega and A. R. Fuentesbelieve that of all the skills that a teacher must possess, soft skills (communication skills) are particularly important (Ortega & Rodríguez, 2015). A. A.Syahid, I. I. Isrokatun and D. Nugrahanote that primary school teachers should use a variety of information and communication technologies, forasmuch as the application of such technologies in practice will increase students' achievement and motivation to learn (Syahid et al., 2019).

J. Murray and R. Passynote that primary school teachers in modern conditions should have a broad and flexible worldview and practical skills of providing information to children of primary school age, taking into account all the physiopsychological characteristics of children of the information age (Murray & Passy, 2014). T.-M. Zoulikha, considering the issue of primary school teachers' training, notes that "training a teacher means preparing him to carry out his educational functions very effectively, and to achieve such event depends on the ability of the teacher to give, and create and interact, and mastering sciences and the application of the different methods of teaching according to each learning situation, and it happens when the teacher manages his class firmly and successfully, and this management relies also on the teacher's personality and his style in dealing with students inside and outside the classroom; consequently, all real educational reform must be based on the teachers' training" (Zoulikha, 2014).

Jo. M.Fernandez-Batanero, Ju. Cabero and E. Lopezin their scientific work "Knowledge and degree of training of primary education teachers in relation to ICT taught to students with disabilities"investigate the issue of introduction of information and communication technologies in the educational practice of primary school. According to researchers' viewpoint, in the context of professional training, teachers should be instructed on

the use of information and communication technologies in the educational process, which will improve the learning of students, as well as give the opportunity to students with special educational needs to study (Fernandez-BataneroJo et al., 2019). N. B. Ghrycaj and S. B. Kupchak, investigating the features of professional training of future primary school teachers, note that in the process of learning future teachers should master a number of project technologies, forasmuch as almost all educational institutions use design technologies to improve students' mastery of the material (Ghrycaj & Kupchak, 2019).

Jo. Olofsson and D. Perssonstudy the features of the Swedish model of vocational education and training. In the course of the study conducted, scientists have come to conclusion that "changes in the Swedish model of vocational education and training that have taken place during the 20th century can be seen as a movement from unregulated apprenticeship to regulated, school-based vocational education at the post-compulsory level. There have been ambitions to complement the initial, school-based vocational training with final, qualified workplace training that is regulated by collective agreements. These ambitions, however, have been only partially fulfilled" (Olofsson & Persson, 2014).

3 Methods

The implementation of the goal outlined involves the use of the following research methods, namely:

- theoretical analysis of scientific literature and investigations in order to clarify the state of the research problem;
- system analysis for a holistic study of the research problem.
- analysis, synthesis, comparison to study the basic components of professional training of future primary school teachers;
- grouping, description, comparison to study the peculiarities of the functioning of primary school and the basic principles of professional training of primary school teachers in Great Britain, Sweden and Germany;
- generalization of the European experience of training primary school teachers.

In order to summarize, compare and analyze the research issue, information from such information resources has been used, namely: Department for Education, Department of Education for Northern Ireland, European Agency, Eurostat, Athrofa Professional Learning Partnership, Cardiff Partnership, DiscoverTeaching, Education Workforce Council, General Teaching Council for Northern Ireland, General Teaching Council for Scotland, Grundlärare F-3, National Recognition Information Center for the United Kingdom, Swedish Confederation of Professional Associations, Universities and Colleges Admissions Service, European Commission, Universities and Colleges Admissions Service and others.

4 Results

For a long time, European countries have carried out differentiated training of teachers: teachers for secondary schools and primary school teachers. Accordingly, the level and quality of their training differed. Currently, in all European countries, teachers' training for general secondary schools is carried out within the framework of higher education.

In the context of revealing the practical principles of professional training of primary school teachers, let's consider the dynamics of the number of children enrolled to school from the age of 4 to the age of primary school in Sweden and the United Kingdom (Table 1).

Table 1: Proportion of children enrolled to school from 4 years of age to primary school age,% to the total number of children in this age group

Country	2014	2015	2016	2017	2018
The United Kingdom	98,2	100,0	n. etc.	100,0	100,0
Sweden	95,9	95,0	95,6	96,3	95,9

Source: Compiled by authors based on the data of Eurostat (https://ec.europa.eu).

In the United Kingdom, during the study period, except for 2014 and 2016 (when 1,8% of children were not involved in education), 100% participation of all children in education is observed. In Sweden, on the other hand, the proportion of children aged 4 to the age of primary school is lower. The largest share of enrolled children was in 2017 (96,3%); in 2018 there was a slight decrease in this indicator (by 0,4%).

Organization "Universities and Colleges Admissions Service", the main purpose of which is to manage the application procedures for British higher education institutions, notes that the basic competence of primary school teachers is to teach students aged from 4 to 11. The primary education program includes three key subjects: English, mathematics, and natural sciences. In primary school, children are provided with religious education; consequently, daily collective worship services are held.

The structure of primary school in the United Kingdom is shown in Figure 1.
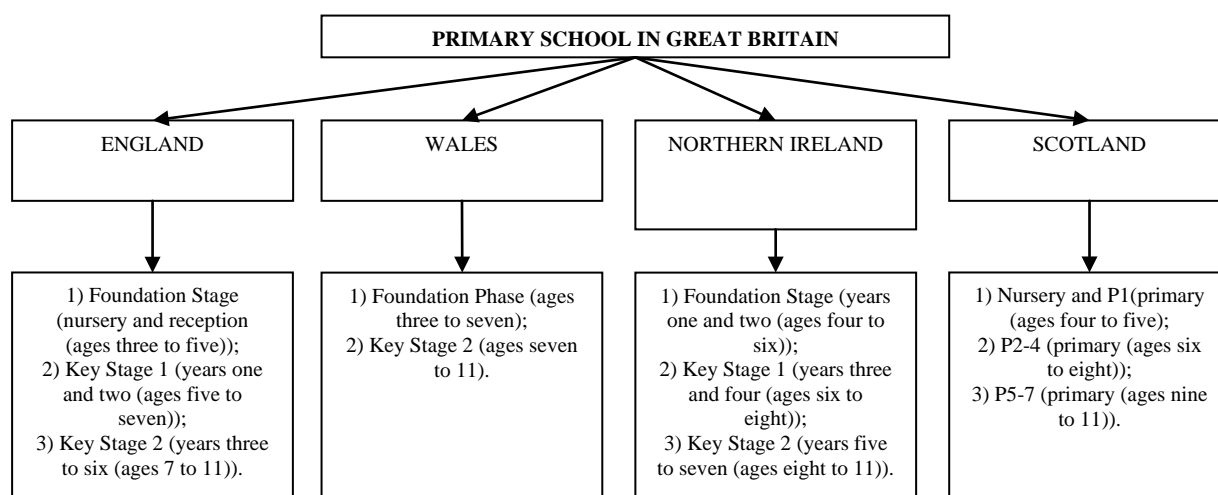

Figure 1. The structure of primary school in the United Kingdom
(Source: Compiled by authors based on the data ofProspects (https://www.prospects.ac.uk).

As it can be seen from the figure, each of the parts of the United Kingdom (England, Wales, Northern Ireland, Scotland) has features related to the age of primary school children. For instance, Figure 2 shows the structure of the national education system of England.
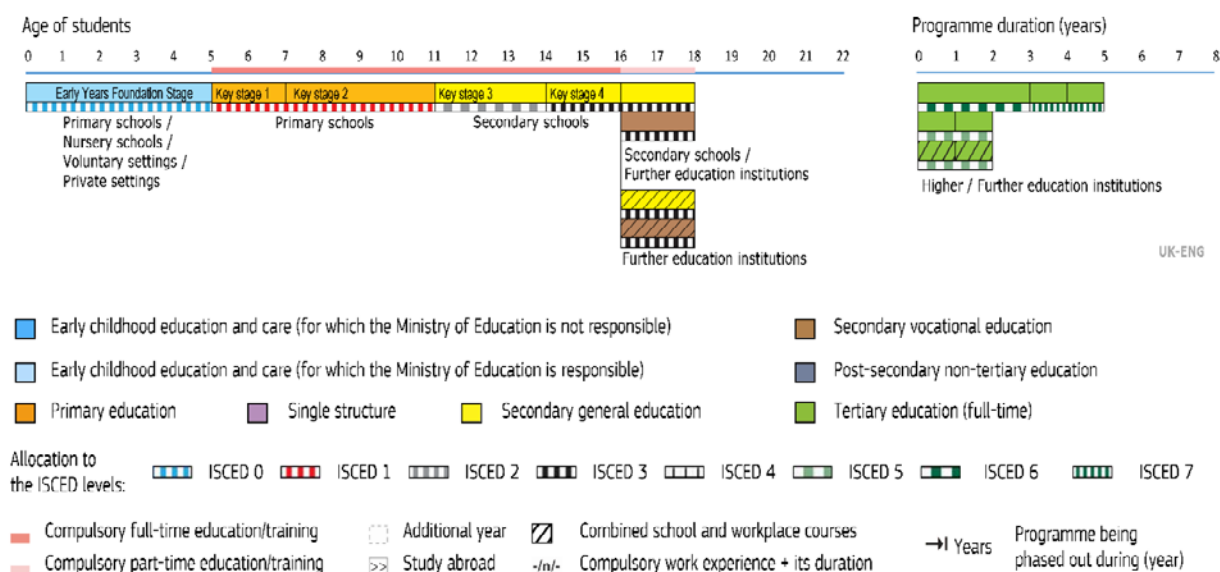

Figure 2. Structure of the national education system of England
(Source: Compiled by authors based on the data of National Education Systems (https://eacea.ec.europa.eu)

The Department for Education of the United Kingdom has identified ways to obtain the appropriate level of qualifications for teaching in primary school, namely: 1) familiarization with pupils in the context of the acquisition of appropriate teaching skills applied in primary school; 2)acquiring the skills of a primary specialist in physical education of pupils; 3) acquiring the skills of a mathematics specialist to teach a vital subject from an early age.

It should also be noted that without a Bachelor of Education (BEd) or a BA / BSc with Qualified Teacher Status (QTS), primary school teachers in the UK find it difficult to obtain Qualified Teacher Status (for instance, in Scotland, a teacher should obtain the Standard for Provisional Registration and, without it, he should register as a teacher who wishes to teach in a sector supported by local authorities).

If a teacher works in a private school, then he does not need to acquire Qualified Teacher Status. However, as practice shows, recruitment benefits are provided to teachers with Qualified Teacher Status.

In the United Kingdom, Qualified Teacher Status can be obtained by:

1) obtaining a Postgraduate Certificate in Education (PGCE) (in Scotland a Professional Graduate Diploma in Education (PGDE)) as a result of obtaining a relevant education in a country's higher educational institution or through teachers' training, provided by school authorities (except Scotland, as there are school councilsin this part In Great Britain);
2) participation in training provided by school authorities (excluding Scotland) which, in addition to Qualified Teacher Status, enable teachers to obtain a Postgraduate Certificate in Education;
3) teachers' training is practiced in England and Wales; however, the teacher is not always awarded a Postgraduate Certificate in Education;
4) participation of teachers in a 2-year program, which operates only in England and Wales, according to which graduates of higher education institutions - future teachers first teach in primary school;and after the program expires, they get the

opportunity to continue their studies (there are cases when graduates, after such practice, receive a different education and form a different career).

In Wales, a potential primary school teacher can obtain the appropriate level of qualification by participating in undergraduate programs, namely:

- Initial Teacher Education or Training (ITET);
- Initial Teacher Training (ITT);
- Initial Teacher Education (ITE).

In Wales, a potential primary school teacher can obtain the appropriate level of qualification by participating in undergraduate programs (Qualified Teacher Status). Qualified Teacher Status (QTS) in Wales is a professional accreditation based on the standards set by the Government of Wales for the minimum level of practice to be followed by primary school teachers. The process and features of the provision of Qualified Teacher Status are not influenced by the age of the pupils of the potential primary school teacher, nor by the subject taught in primary school.

Potential primary school teachers, having acquired the appropriate level of academic qualification, should successfully complete and master the study of a number of programs, according to which Qualified Teacher Status is assigned;in the process of learning, they should acquire skills and abilities to work not only with mentally developed children, but also with children with additional learning needs.

The primary school teacher in the United Kingdom should:

1) be knowledgeable about educational material, which he teaches in primary school and which is determined by the relevant curricula;
2) be responsible and purposeful towards achieving primary school pupils a high level of success;
3) organize and encourage students to learn based on the use of various educational resources and innovative technologies;
4) plan and conduct lessons at the appropriate level in order to successfully and effectively teach pupils;

5) motivate pupils to learn;
6) maintain an appropriate level of discipline in the classroom;
7) make suggestions for improving pupils' performance and achieving positive development;
8) properly assess pupils' knowledge;
9) to inform pupils' parents and guardians about their performance achievements and development;
10) cooperate with other primary school teachers in order to coordinate activities and resources for the implementation of curricula;
11) be knowledgeable about information about existing and potential changes in curricula;
12) organize and participate in various school activities;
13) cooperate with parents and guardians of pupils, as well as with school principals.

The primary school teacher should possess the following skills, namely: a) be able to communicate and have interpersonal abilities; b) organizationally and timely manage the learning process; c) be energetic, enduring, stress-resistant, patient, self-disciplined; d) show initiative, be able to work in a team and for the result; e) have an analytical mind; f) be able to think creatively, be able to reflect the course of the educational process in the imagination; g) be physically and spiritually healthy; h) have additional knowledge in the field of art, music, sports, languages, information technology, etc.

Educational institutions, providing vocational training of primary school teachers in Wales, should work in partnership in order to develop and implement joint Initial Teacher Education programs. Such aspects of the activities of educational institutions are clearly regulated by the Criteria for the accreditation of initial teacher education programs in Wales.

It should also be noted that the Government of Wales has set a quota that limits the number of potential students for acquisition of the profession of primary school teacher. The quota for enrollment to the higher educational institution ona specialization "primary school teacher" is calculated on the basis of the demand for this profession in Wales. The Education Workforce Council (EWC) distributes Initial Teacher Education and Postgraduate Certificate in Education bachelor's programs among the relevant educational institutions that are members of accredited partner organizations (accredited partnerships), namely: Chester/Bangor North Wales Partnership (CaBan), Cardiff Partnership and Yr Athrofa Professional Learning Partnership.

The accredited partner organization CaBan is a partnership between Bangor University, the University of Chester, the Regional Consortium GwE, the research institute CIEREI and the schools of this partnership, the main purpose of which is to prepare highly qualified teachers for primary schools.

CaBan offers training courses for potential teachers in order to obtain the level of Qualified Teacher Status, namely: 1) PGCE Primary (3-11 years) with Qualified Teacher Status (CaBan at Bangor: PGCE Primary (3-11 years) with Qualified Teacher Status; CaBan at Chester: PGCE Primary (3-11 years) with Qualified Teacher Status; BA (Hons) Primary Education with Qualified Teacher Status (3–11) – Bangor University); 2) PGCE

Secondary with Qualified Teacher Status (CaBan at Bangor: PGCE Secondary with Qualified Teacher Status).

The Accredited Partner Organization Cardiff Partnership is a partnership between Cardiff Metropolitan University and its partner schools and between the University of Oxford, Cardiff University, Central South Consortium, Education Achievement Service and City of Cardiff Council in order to help potential primary school teachers achieve the right a Qualified Teacher Status level that would not only meet the Qualified Teacher Status standards, but also exceed the requirements defined to achieve Qualified Teacher Status.

The accredited partner organization Athrofa Professional Learning Partnership operates on a partnership basis between school and university staff in England and Wales. It offers three innovative programs in order to obtain the appropriate level of Qualified Teacher Status, namely: 1) Postgraduate – PGCE Primary (with Qualified Teacher Status); 2) Postgraduate – PGCE Secondary (with Qualified Teacher Status); 3) Undergraduate – BA Education (with Qualified Teacher Status).

In other parts of the United Kingdom, for example in Scotland, the application for a Postgraduate Certificate in Education is submitted through Universities and Colleges Admissions Service (UCAS). In Northern Ireland, in order to obtain a Postgraduate Certificate in Education, one should complete the appropriate courses, which are mainly held in November-December each year. In England, in order to obtain a Postgraduate Certificate in Education, one should submit an application through the subsidiary UCAS Training Teacher of the Universities and Colleges Admissions Service.

In the United Kingdom, the level of qualification of teachers, including primary school, is determined by the UK NARIC (National Recognition Information Centre for the United Kingdom). Qualified Teacher Status is officially recognized if it is obtained by the teacher in Australia, New Zealand, Canada, or the United States. In this case, the teacher applies for a test of his qualifications at the National College for Teaching and Leadership.

Information on teachers' training in Northern Ireland, Scotland or Wales is provided by the Department of Education for Northern Ireland (DENI), Teach in Scotland and DiscoverTeaching (Wales).

In order to work at school, teachers should be members of the appropriate pedagogical council. In particular, in order to teach in Wales, a teacher should register with the Education Workforce Council; in order to work in Northern Ireland, a teacher should register with the General Teaching Council for Northern Ireland (GTCNI), in Scotland - at the General Teaching Council for Scotland (GTCS).

In Sweden, compulsory education has a unifiedstructure that corresponds to primary and lower secondary education for children (International Standard Classification of Education, ISCED, levels 1 and 2). Figure 3 reflects the structure of the national education system of Sweden.
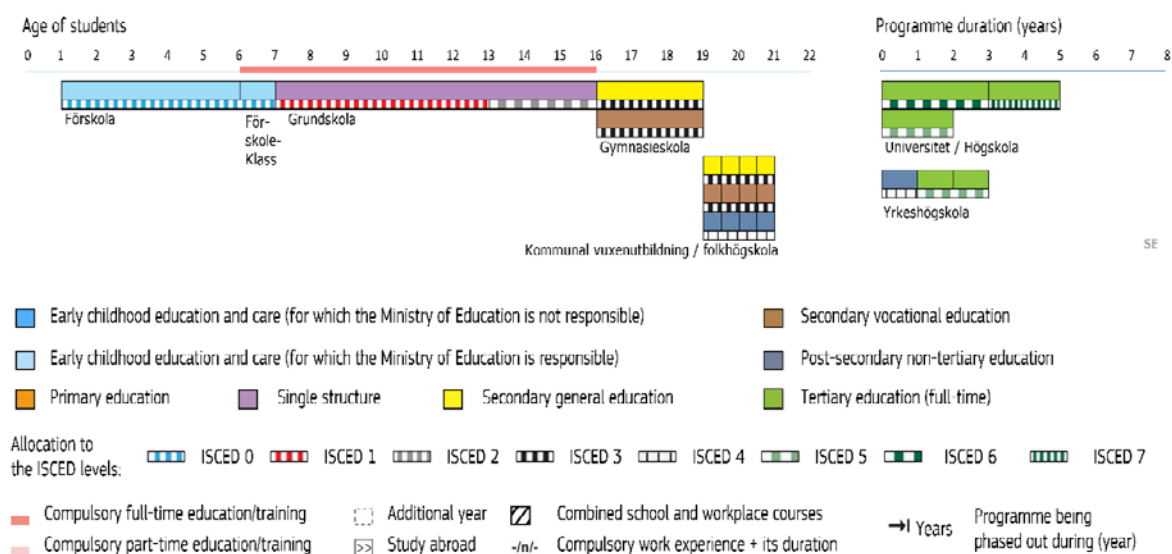
Sweden – 2020/21

Figure 3. Structure of the national education system of Sweden
(Source: Compiled by authors based on the data of National Education Systems (https://eacea.ec.europa.eu).

The teaching profession in Sweden is governed by school law. The teacher should possess a scientific degree, and in some cases - a certificate certifying his qualifications.

In Sweden, a teacher's training involves the acquisition of general basic competence, which is combined with specialization.The specialization of a primary school teacher includes knowledge of basic subjects for younger age groups. The teacher's curriculum lasts from three to five and a half years, the preparation of a primary school teacher lasts at least three and a half years.

The general program (curriculum) that the future teacher should pass includes the following three educational directions, namely:

1) general education direction, which is common for all students and includes the study of basic subjects (study period 1,5 years);
2) subject oriented direction includes disciplines that the future teacher studies in accordance with his future specialization (study period 1 year);
3) the direction of specialization in which the future teacher studies in depth the subjects that he will teach at school (the term of study is at least 1 year).

Professional training of primary school teachers is carried out according to the following basic areas, namely:

1) theoretical knowledge of the curriculum and didactics;
2) history of development, peculiarities of organization and conditions of activity in schools, based on the provisions on freedom and human rights;
3) social relationships, ability to behave in conflict situations, leadership skills;
4) features of personal development, training and education;
5) monitoring changes in development and learning;
6) evaluation of the results of the educational process;
7) methodology of teaching educational material.

In Sweden, there are three specializations of primary school teachers, namely: 1) teaching in F-3 forms (classes); 2) teaching in 4-6 forms; 3) teaching in leisure centers (facilities).

In order to teach in F-3 forms (for children 1 to 3 years old), the teacher should complete 240 credits of higher education and, while teaching, he should master the full range of knowledge about reading skills, writing and mathematics skills, as well as learn how to transfer them to pupils.

In order to teach children from 4 to 6 years old, the teacher should also complete 240 credits of higher education and, in the learning process, he should master the basics of Swedish and English, mathematics, natural, social, art subjects taught at primary school.

In order to teach at leisure centers (facilities), the teacher should complete 180 credits of higher education, which provide for the acquisition of knowledge from extracurricular subjects related to the practical field or the field of art.

If a teacher has the appropriate level of education obtained abroad, he or she should apply to Skolverket in order to register as a future teacher in Sweden.

In Germany, in almost all regions, primary education covers 1-4 forms, in Berlin and Brandenburg1-6 forms. Primary school provides basic school education as part of a joint educational program for all children; it includes key reading, writing and mathematics competencies. The structure of the national education system in Germany is shown in Figure 4.

In Germany, future teachers are trained at pedagogical faculties of universities, at technical colleges (Technische Hochschulen), at technical universities (Technische Universiteit), at pedagogical colleges (Pédagogische Hochschulen), and at higher art and music schools (Kunst-und Musikhochschulen).

The training of teachers, including primary school teachers, is regulated by the legislation of the individual regions. Relevant statutory provisions include laws and regulations on teachers' training, Studienordnungen (teaching regulations) for teachers' training courses, Prüfungsordnungen (examination regulations) for Erste Staatsprüfung (First State Examination) or for bachelor's and master's degree examinations, Ausbilenngs) Vorbereitungsdienst (preparatory service) and regulations on the Second State Exam.
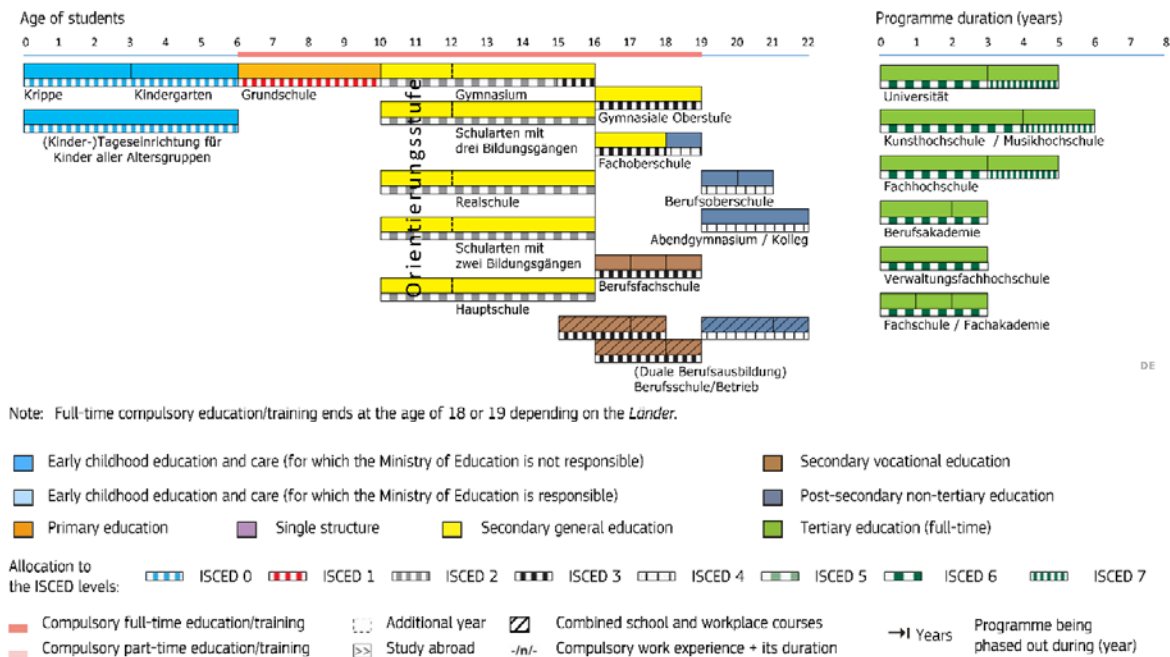
Figure 4.The structure of the national education system of Germany
(Source: Compiled by authors based on the data of National Education Systems. (13)

Responsibility for teachers' training lays on the Ministries of Education and Culture and the Ministry of Land Sciences, which regulate training in accordance with the regulations on teaching, regulations on training and examinations or relevant statutory provisions.

In Germany, a degree system of education operates, namely: bachelor - master.During the first 6 semesters (bachelor's degree) students study profile subjects; during 2-year study according to master's program, they study methods of teaching. At this stage, the student is awarded 300 credits, which replace the first state exam. Undergraduate practice lasts 18 months. Upon completion of the master's program, the student receives a master's degree.

The training of future primary school teachers has not changed in the universities of Saar, Saxony-Anhalt, as well as in the region (land) of Baden-Württemberg. The first stage - the theoretical phase (studium); it lasts 6 semesters and includes the study of pedagogical and social disciplines, several special subjects, including teaching methods, and introductory pedagogical internshipat primary school. Training ends with the First State Exam. The second stage - the practical phase - two years of pedagogical internship under the guidance of a Methodist ("preparatory service" or "referendariat"); during its passage the future teacher conducts 10 lessons a week at school and at the same time he attends classes on methods and pedagogy (2-4 hours a week), which are held in the form of seminars-discussions. The practical stage ends with the Second State Exam.

The first and second state examinations are conducted by state examination bodies or land boards. In the bachelor's and master's courses, confirming the qualifications required for entry into the preparatory service, the responsibility of the state for the content of the training of future primary school teachers is ensured by involving a representative of the higher body of state education on the school system in the accreditation procedure. Any accreditation of individual training courses requires the approval of this representative.

After graduating from the university, graduates receive the position of a teacher of the first (I) degree (teacher of 1-4 forms of primary school, the first age level).

It should be noted that different educational institutions have their own rules regarding the terms of professional training of future teachers, requirements for the content of education (number of hours in each discipline), forms of state exams, qualifications assigned to future teachers.

In German universities, much attention is paid to the independent work of students, which consists in writing essays, performing creative tasks, projects, preparing reports, with which students speak at seminars and which are admission to exams and tests. In German universities a steady trend is observed towards a reduction in the number of lectures and, accordingly, an increase in the number of seminars; preparation for seminars by students is practiced, the role of individual forms of work with students in the educational process is growing.

Summarizing the results of the study, it can be argued that all European universities have actually switched (or are completing the transition, as in Germany) to a multi-level structure of the educational process.At the same time, it should be noted that the duration of the training cycle for primary school teachers is different, which is connected with the peculiarities of education systems of schools.In the United Kingdom, the cycle of undergraduate and graduate studies is the shortest (3 years + 1 year), in Germany - the longest (3-4 years + 1-2 years).

All countries have one common aspect: in the preparation course of primary school teachers, the main emphasis is paid on the practical component of the future profession.

In the British system of primary school teachers' internship, there are two forms of pedagogical internship: traditional practice - long-term practice with a break from classes; serial practice - short-term without a break from classes, which can last half a day, a day, a week.

The feature of pedagogical education in England is that after graduation the university is obliged to monitor the work of its graduates at school for at least a year after graduation.That is, in

the English system of practical pedagogical training, a close connection is established between the university and the school.

In Swedish higher educational institutions, practical training is provided in partner schools.Teachers' training programs provide a significant number of hours for students to undergo practical internshipat schools.In the first year of study, students undergo propaedeutic practice; in the second year - educational practice, in the third year - educational practice within the technological level; in the fourth year - a comprehensive educational pedagogical practice.All the material collected during the four levels of practice is used by students when writing a thesis, which is performed on the basis of partner schools.

During training of primary school teachers in German higher educational institutions, the practice is closely related to the teaching of pedagogy or methodology and has the following forms, namely:school internship, which involves weekly attendance of several lessons, followed by discussion under the guidance of university teachers; work at school during the holidays.

Thus, practical pedagogical training of specialists - future primary school teachers in European countries is the main direction of professional pedagogical education.

5 Discussion

The content of professional and pedagogical training of teachers is a combination of general, special and theoretical disciplines and the use of acquired knowledge in practice.

The actual problem of training primary school teachers in the United Kingdom, Sweden and Germany is the level of knowledge of core academic disciplines. Along with this, these countries strive to adhere to a reasonable balance between the two basic components of teachers' education - knowledge of the core discipline and psychological and pedagogical training of the future teacher. In this context, P. Musset (1) notes that in the training of primary school teachers a mixed typological approach is dominated, which is based on:

- mastering the theoretical foundations of pedagogical science (plus academic study of a narrow range of disciplines);
- mastering the practical experience of teaching primary school children through the cooperation of academic institutions with schools;
- research approach to the teaching profession, critical analysis of reality and self-criticism, emphasis on professional autonomy, on the one hand, and skills of cooperation, interaction in the teaching staff, on the other;
- mentoring, mastering the practical skills of teaching experienced teachers, the so-called "on-the-job" training. (1)

The school plays an important role in the system of professional and pedagogical training of future teachers. The higher educational institution and the school should jointly develop and implement: teachers' training programs (curricula); structure and content of teaching internship; methods of teaching special disciplines that students study in universities and disciplines provided by the school curriculum; methods of testing students' knowledge; methods of assessing the practical work of students; the procedure for checking the final result of professional and pedagogical training; teachers' programs of training and skills enhancement.

In the United Kingdom, in the course of preparation of primary school teachers, special attention is paid to teaching methods, mastering specific skills of teaching and educational work, which future primary school teachers acquire in the process of traditional seminars, practical, laboratory classes and by using new forms and methods of working with pupils.

P. Musset (1) identifies traditional and new models of a future teacher's training. The author refers the following models to traditional ones, namely:

- "Normal school tradition" - traditional conception of primary school teachers' education, in which the curriculum provides for the acquisition of basic skills through practical training (field experiences, methodology courses, subjectmatter pedagogy);
- "Academic tradition" - traditional conception of lower and higher secondary school teachers' education.

New models are as follows:

- "Professionalization" of teaching - dynamic conception of teaching that focuses on professional autonomy and standards;
- Alternative pathways into the profession - training and certification based on the possession of skills that do not come from a teacher education program, but from the personal experience and characteristics of each aspirant. (1)

J. Murray and R. Passyalso emphasize the current problem of transition from adaptive models of primary school teachers' teaching to the so-called "developmental" model, which is based not on mastering ready-made conceptual paradigms of teaching at the primary school level, but on inquiry and investigation principles. (6)

The study of the practical principles of professional training of primary school teachers in Sweden makes it possible to identify the basic areas of their professional training, namely: mastering theoretical knowledge in the context of studying the disciplines provided by the curriculum; acquiring skills to interact with pupils and motivate them to learn; professional teaching of school subjects in order to improve pupils' performance.

The process of preparing a primary school teacher by German universities is characterized by the individualization of the learning process, the study of individual characteristics of the student, his strengths and weaknesses, and the construction of individualized taskson this basis.An important role in the organization of the educational process, increasing the level of theoretical and practical preparation for innovative activities at school belongs to seminars, trainings, group discussions, project activities.

It should be noted that in all countries, a mandatory component of the training of primary school teachers is passing by students of pedagogical internship, during which future primary school teachers get acquainted with various ways of preparing for the lesson, improve the skills and abilities of organizing younger schoolchildren during the lesson, acquire applied experience.

6 Conclusions

According to the results of the conducted study on the specifics of professional training of primary school teachers in the United Kingdom, Sweden and Germany, it has been established that these issues are regulated by a number of institutions and organizations, among which the leading place is occupied by the European Agency and European Commission.

It has been established that in the UK there is a two-stage structure of professional training for future primary school teachers: bachelor's and master's. Training of specialists in the field of pedagogy is carried out by institutes and colleges of higher education, institutes of pedagogy at universities, faculties of pedagogy of polytechnic universities and colleges. Qualified Teacher Status gives the right to teach in the field of preschool, primary and secondary education, both in public and private structures.

In the course of the research it has been proven that in Sweden the professional training of a teacher presupposes the acquisition of general basic competence, which is combined with

specialization. For primary school teachers, the specialization includes knowledge of basic subjects for younger age groups. The issues of organizing the professional training of primary school teachers belong to the competence of the Skolverket.

The bachelor's degree in primary school education has three directions of specialization, namely: work in preparatory and 1-3 forms; work in 4-6 forms; work in institutions of additional education, which requires knowledge of its features and one or more applied or artistic subjects.

Pedagogical training programs (curricula) in Sweden include the following integrated blocks, namely: general pedagogical education, study of a certain subject area or disciplines of one block, which the student plans to teach in the future; specialization, which provides in-depth study of the previously selected discipline of the second block, or additional subjects.

In Germany, the training of future teachers is carried out at the pedagogical faculties of universities, in higher technical schools, in technical universities, in pedagogical higher schools, as well as in higher art and music schools. The Ministry of Education and Culture and the Ministry of Land Sciences are responsible for teachers' training. In Germany, a two-stage education system operates: bachelor - master. At higher educational institutions in Saar, Saxony-Anhalt, in the region (land) of Baden-Württemberg, the training of future primary school teachers consists of two stages: theoretical and practical, each of which ends with the First and Second state examinations conducted by state examination bodies or land boards. After graduating from the university, future primary school teachers receive the position of a teacher of the first (I) degree (teacher of 1-4 forms of primary school, first age level). Various educational institutions have their own rules regarding the timing of professional training of future teachers, requirements for the content of education, forms of state examinations, qualifications, assigned to future teachers.

Further investigations in this area may be aimed at studying the issue of continuous professional development of teachers, including primary school teachers. Primary education, even at the master's level, cannot provide a teacher with all the competencies he or she needs throughout his or her career. In the modern dynamic world, teachers need to annually update their competencies, develop, expand knowledge in accordance with new scientific developments and teaching methods. In addition, surveys show that many primary school teachers are insufficiently prepared to work with pupils with special needs; they possess little knowledge of modern information and communication technologies. Lifelong teachers' learning and training is a tool for developing the skills needed for pupils to achieve higher performance results.

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FORMATION OF FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE OF STUDENTS OF HIGHER EDUCATION INSTITUTIONS

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Abstract: Foreign language communicative competence covers intercultural communication skills relating not only to a deep knowledge of literary norms of a foreign language, but also to a range of communication skills for the successful performance of communicative tasks and compliance with expectations of native speakers and other communicators. The research objective consists in a comprehensive theoretical and experimental study of the problem of formation of foreign language communicative competence of students of higher education institutions (HEIs) (on the basis of English as a foreign language). Methods: comprehensive theoretical analysis of the concept of communicative competence; ascertaining experiment; study and analysis of literature.

Keywords: communicative competence, foreign language, linguistic competence, HEIs, communicative approach.

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1 Introduction

Communicative competence is one of the key terms of modern linguistics, which is characterized by pragmatic and practical orientation. The term is widely used in Teaching English as a Second Language (TESOL). The term was introduced into scientific circulation by Hymes (1966) with an emphasis on its methodological component and the necessary semantic lines to fill gaps, which could not be filled by other TESOL methods. The concept of communicative competence was initially interpreted as the ability to use grammatical knowledge and sociocultural knowledge during the act of communication in real-life situations.

Specialists in foreign language teaching methodology are increasingly frequently talking about defining goals of professional training of students of philological specialties in the direction of forming such an integral characteristic of a specialist as professional competence. At the same time, the important issue concerns not only the foreign language professionally-oriented competence of applicants, but also the search for an approach aimed at improving the efficiency of the process of its formation. A student of philology must not only speak the foreign language in a professional way, but also possess modern methods of its application in various natural communicative situations: both in private life and within the terms of performance of future professional duties.

The key issues of intercultural communication concern not only knowledge of literary norms of a foreign language (literacy), but primarily emphasize the importance of communication on the basis of literacy, successful completion of communicative tasks and compliance with expectations of native speakers. Changes in goals of modern foreign language education has led to changes in training requirements for future professionals, according to which a graduate of the Foreign Philology Department must have analytical, design, constructive skills of foreign language communication activity, a strongly pronounced level of empathy, reflection, ability to cooperate with other communicators in the communication environment, personal emotional attractiveness during the act of communication.

Currently, the problem is that in fact graduates of philology departments of universities receive a deep basic language education, but, according to the research results (in particular (Al-niaima, 2018; Ahmed & Pawar, 2018), in the modern context, their knowledge, skills and abilities are insufficient to become a successful specialist and self-sufficient communicator when interacting with foreigners. Therefore, in the process of studying at HEIs, there is a need for a comprehensive approach to defining the system of methodological training of students from the perspective of the modern educational paradigm. It is also necessary to find new methods, techniques, instruments and forms of teaching a foreign language to students of language specialties in order to form their foreign language professionally-oriented communicative competence in terms of the increased role of language as a means of professional communication.

The development of foreign language professional communicative competence becomes the goal and result of foreign language teaching, while the common components of foreign language professional competence include a number of competencies, which are formed sequentially, parallelly or simultaneously (for example, the classic four-component model of basic *language competencies*: listening, reading, speaking, writing – it is important not to confuse them with communicative competencies). Foreign language communicative competence should be understood as the integral concept of professional training, which covers professional knowledge and practical skills in foreign philology, the success of formation of which depends on the maturity of the motivational aspect, professionally significant personal qualities and behavioural characteristics ensuring successful foreign language professional activity and personal communication in the paradigm of a foreign language communication environment.

Speaking of foreign language learning, it is worth mentioning that, in Europe, the guiding document in this regard is the Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR), an updated version of which (in respect of a previous effective document dated 2001), appeared in 2020 (www.coe.int). The "aim of language education" is defined in the document as "to develop a linguistic repertory, in which all linguistic abilities have a place". The concept of communicative competence is of a generalizing nature: all knowledge and experience of languages contribute to building it up.

2 Literature Review

The question of formation of foreign language communicative competence of students of HEIs is studied by such modern scientists as Poolsawad, (2015) Hussein and Elttayef, (2016) Jovanovic, (2016) Cazden, (2017) Eghtesadi, (2017) Gałajda, (2017) Ghanem, (2017) Nguyen, H.T. Pham and T. M. Pham, (2017) Ahmed and Pawar, (2018) Al-niaima, (2018) Avgousti, (2018) Elbashear, (2017) Hussein, (2018) Kusiak-Pisowacka, (2018) O'Dowd, (2018) Halupka-Rešetar, (2019) Ruiz and Spínola, (2019) Hussein, Albakri and Seng, (2020) Jetesbaevna (2020) and others.

Halupka-Rešetar, (2019) whose techniques of diagnostics of the level of maturity of communicative competencies were used during the current research in an adapted form, points out that today's university education in foreign philology departments is focused mainly on issues of theoretical linguistics such as phonology, morphology, syntax and semantics of linguistic units. All this, however, does not insure against the same speech errors in the conditions of foreign language communication and, in addition, makes students feel psychologically lost every time and make even more mistakes when communicating with native

speakers. This standard situation demonstrates gaps in the formation of foreign language communicative competency of students. Communicative failures, which are inevitable when focusing on theoretical issues of language, bring to naught the whole aim of teaching a foreign language due to the immaturity of communicative competencies.

Al-niaima (2018) emphasizes that communicative techniques create a real, life-like environment for learning English as a Foreign Language (EFL), communicative techniques help students use the target language in a real situation (extracurricular). Among the difficulties associated with the immaturity of communicative competencies, the author highlights the difficulties of students in understanding TV or radio programs in English. Therefore, the method of situation modelling is called the most useful way of forming foreign language communicative competence.

Avgousti (2018) talks about the formation of multimodal communicative competence (MCC) in the paradigm of the aim of learning a foreign language consisting in producing intercultural speakers. The role of web-resources for the development of MCC and intercultural communicative competence (ICC) has been considered through the use of online intercultural exchanges (OIEs). ICC, as well as in general all manifestations of communicative competence, refers to Applied Linguistic (Kusiak-Pisowacka, 2018; O'Dowd, 2018; Halupka-Rešetar, 2019; Ruiz & Spínola, 2019). Ghanem (2017) considers the problem of ICC too, evaluating the prospects of graduate student instructors in the formation of ICC and incorporation of ICC into the process of teaching a foreign language (FL). Gałajda (2017) considers communicative competence in the context of behaviour approach, focusing on the behaviour of a language learner. The author emphasizes the differentiation of the concepts of communicative competence and language competence.

Ahmed and Pawar (2018) have a very simple and paradoxically exhaustive definition for the concept of communicative competency – it is a competency to communicate. It is interesting that, further in their work, the researchers potentially differentiate this competency into oral, written and even *nonverbal*. It is this nonverbal communicative competency that is, on the one hand, barely noticeable, and on the other – without its effective organization, the whole process of communication, including in a foreign language, will be doomed, speaking in terms of linguistic pragmatics, to communicative failure. Nonverbal communication plays both the role in accompanying verbal speech and the role in filling communicative pauses. In the structure of communicative competence, nonverbal communication skills tend the most towards the social and cultural component of the concept of communicative competence. It contains not only the semes "to speak in a foreign language", but also the semes "to behave like a foreigner", "to think like a foreigner". As a result, the general term of communicative competence is comprehensive and refers to the level of language proficiency, as well as skills of using the language in real-life situations in order to meet a range of communicative needs.

Jetesbaevna (2020) considers the communication process of language in foreign language teaching within the context of communicative-cumulative methodology. The necessity and appropriateness of the use of cognitive or cumulative component in the structure of formation of communicative foreign language competence of students is stated. Cazden (2017) focuses on issues concerning interrelations between the academic performance of students and their level of communicative competence.

Eghtesadi (2017) studies how, with the change of educational vectors of Iran (under the influence of globalization processes), the approaches to foreign language learning transformed in the direction of developing foreign language verbal skills through the application of Communicative Language Teaching (CLT) techniques. However, the emphasis is placed on how teachers of

different educational levels, especially those who have become accustomed to traditional methods of teaching a foreign language, adapt to CLT techniques. Such a perspective is significant too, because very often the immaturity of communicative competence of students of HEIs results from the immaturity of university models of effective, pragmatic and practical teaching of a foreign language. Thus, a passive teacher will stimulate the same behaviour pattern of students. Of course, the attractiveness of traditional teaching models can be explained by the fact that they are at least energy-effective, it is easier to test / evaluate students' skills within their terms. While CLT technologies require the teacher and students to be in constant active search, tone, mode of maximum speech interaction using all possible means of communication.

Jovanovic's (2016) research perspective is quite original, as it draws attention to the fact how language teaching methodologies, in particular teaching communicative competence, in general affect philology as a science of language in the broadest sense.

Studies by Hussein and Elttayef, (2016) Elbashear, (2017) Hussein, (2018) Hussein, Albakri and Seng, (2020) Nguyen, H. T. Pham and T. M. Pham (2017) and Poolsawad, (2015) in contrast to those previously described, are of an experimental and applied nature. Hussein and Elttayef (2016) demonstrate the positive effect of using Skype for the development of discursive communicative competencies. Hussein (2018) proves that the use of authentic language materials in teaching students improves the level of communication skills and competence. Similar theses dominate in the work by Elbashear – (2017) in the context of using authentic works of literature. The research of Nguyen, H. T. Pham and T. M. Pham (2017) consists in studying the potential for input enhancement and recast in teaching various aspects of language pragmatics while learning a foreign language. The formative experiment consisted of targeted application of visually enhanced pragmatic input and recasts of students' errors of form and meaning. The method showed qualitative achievements in the pragmatics of the use of a foreign language, which stimulates further studies of the proposed experimental paradigm. The effectiveness of application of pragmatic instruction to increase communicative competence is also considered in the work by Hussein, Albakri and Seng (2020).

Poolsawad (2015) develops a model for diagnosing communicative competence in English by 9th grade students. The research included such components of communicative competence as grammatical knowledge (vocabulary – the speaker's ability to correctly use their own vocabulary in accordance with the purpose and features of the communicative situation; syntax – the speaker's ability to organize words into phrases, sentences, text); sociolinguistic knowledge (the ability to use the language in accordance with the social context: factors of age, gender, status and relationship with the communicant; the speaker adheres to stylistic relevance and uses a polite, tolerant style of communication). Approximately the same range of communicative foreign language competencies was diagnosed in the course of the research conducted within the terms of preparation of our intelligence.

In the course of the research of the issue concerning the formation of foreign language communicative competence, some vagueness of the term (competence/competency) has been revealed, particularly concerning its scope and structure. However, there are even more questions regarding the search for optimal diagnostic techniques to identify the level of maturity of foreign language communicative competence and a holistic, constructive approach to its formation at the stage of study at the university. However, the test questionnaires by Halupka-Rešetar (2019) and Kwon (2004) seem to us to be the most optimal and will be used in the context of this research.

3 Aims

The research objective consists in a comprehensive theoretical and experimental study of the problem of forming foreign language communicative competence of students of higher education institutions (on the basis of English as a foreign language). This objective provides for the performance of the following research tasks:

1. theoretical analysis of the concept of foreign language communicative competence;
2. diagnostics of the level of maturity of communicative competency by means of ascertaining experiment;
3. identification of ways of improving foreign language communication skills within the context of university training.

4 Methods

The research was organized and conducted through the activities of the Department of English and German Philology and Translation named after Professor I. V. Korunets at Kyiv National Linguistic University.

To achieve the research objective, the following research methods were used:

▪ study and analysis of theoretical and practical works in the field of linguistics, psychology, pedagogy, language pedagogy, foreign language teaching methods;
▪ observation of the teaching and learning process of the development of foreign language professionally-oriented communicative competence of first-year students of the Department of Interpretation and Translation Studies of Kyiv National Linguistic University in 035 Philology, specialization 035.041 Germanic Languages and Literatures (translation included), first – English; educational and professional program: English language and literature, second foreign language, translation;
▪ ascertaining experiment: the diagnostic model contained questionnaires and testing of first-year students of the

specified specialty, as well as the qualitative and quantitative analysis of the received data;
▪ statistical and mathematical treatment of experimental data and their analysis;
▪ method of generalization – when drawing conclusions from the conducted research.

In order to determine the level of maturity of communicative competence, the stage of completion of the first-year course by students was chosen (after the second examination-and-test session). Thus, the ascertaining experiment covered the diagnostics of communication skills of the students, who became applicants for the specialty in the 2019-2020 academic years. It involved students from one academic group of 30 people. In 2019, the average score of the EIE to enter the university on a budgetary basis was 186.02, on a contractual basis – 160.41 (and the certificate on the principal subject – English – was of the highest priority k=0.40, when enrolling). Thus, students with an initially high level of English language proficiency were enrolled according to the criteria of the school educational program.

We consider questionnaires and testing at this stage appropriate for several reasons:

▪ during the first year of studies, both applicants and teachers of the group had the opportunity to further align and improve the entry level of communicative competency of students;
▪ the diagnostics will allow to determine the existing level of communicative competence and work out a strategy for further improvement for the next years of studies.

A comprehensive approach based on the author's technique Individual Entrance Questionnaire on Communicative Competence, the techniques by Halupka-Rešetar – (18) Tests on EFL pragmatic competences and the technique by Kwon (22) was chosen for the conduction of the ascertaining experiment. The detailed analysis of the techniques and the method of their application are described in Table 1, the full text of the techniques is contained in the relevant appendices.

Table 1. Diagnostic techniques

	Individual Entrance Questionnaire	Test on EFL pragmatic competence in:					
		Using impolite address forms	Producing suggestions	Responding to compliments	Conversational implicatures	Production of requests	Production of refusals
How to refer	Appendix						
	A	B	C	D	E	F	G
Aim	To determine the level of conscious attitude to the communicative competency of the student and his/her activity/ passivity (The technique of evaluation of a particular test was as follows: question "What do you (as a language learner) think is the goal of language course?" // Answers like "To learn grammar and vocabulary of the language" are	To find out what are the verbal reaction to people who have hurt physically and/or emotionally	To find out what strategies learners of English use to make suggestions in various situations	To find out what are the verbal reaction to compliments	Using the example of the described dialogically communicative situations, to determine the correctness of students' understanding of figurative (or non-literal) language	To find out what are the verbal reaction to requests	To find out what are the verbal reaction to refusals

		Halupka-Rešetar (18) (adapted)			Kwon (22) (adapted)
	regarded as problematic in terms of language competence understanding. A model of positive answer is like "To improve skills of freely communication using foreign language"))				
Author	Author's model	Halupka-Rešetar (18) (adapted)			Kwon (22) (adapted)
Time	*40 min.*				*20 min.*
Proce-ssing of the obtained results	8 points for each question (12*8) + 4 points for the evaluation of spelling literacy and lexical diversity of answers in general for the test.	2 points for each answer *often* and 1 point for *sometimes (Block 1: 9 points); Block 2: 23*2; 46 max); Block 3: 5 points maximum for each situation (9*5; 45 max). 100 points max for the test*	5 points for each correct answer (20*5). *100 points max for the test*	16 points for each situation (6*16) + 4 points (literacy and lexical diversity)	8 points for each question (12*8) + 4 points for the evaluation of spelling literacy and lexical diversity of answers in general for the test.
Max points for each test – 100 points *7 Questionnaires * 100 = **700 points** max as a results of the whole ascertaining experiment*					

Diagnostic works of the students were encrypted in order to avoid subjective evaluations when measuring the achieved results (especially during the processing of questionnaires).

Tests to determine pragmatic competencies will also be appropriate for communicative competencies, as pragmatic competence is defined as concerning two important aspects of communicative use of the language, namely:

▪ interrelations between speech signals and their referents (functional knowledge);
▪ users of language and context of communication (sociolinguistic competences).

In the selection of diagnostic techniques and in the operation of the concept of "communicative competence", the authors used the structure by Celce-Murcia, Dörnyei and Thurrell, (1995) on the basis of which they proposed their own model of communicative competence Fig. 1.

Linguistic Competence
Understanding and active using of:
• foreign language vocabulary;
• language conventions (grammar, punctuation, spelling patterns);
• syntax (construction of elementary and complex syntax units according to the pragmatic aims of speaker).

Strategic Competence
Using communicative techniques in order to:
• overcome language gaps:
• plan and access the effectiveness of communication;
• achieve conversational fluency;
modify text with accordance to audience insights, peculiarities of pragmatic situation of communication.

COMMUNICATIVE COMPETENCY
as the ability to understand, actively and effectively, with pragmatic success use language in order to communicate in authentic social professional and private communicative

Socio-linguistic Competence
Having awareness of:
• social rules of language (e.g., formality, politeness, directness);
• nonverbal communicative models of behavior;
• cultural references (cultural (national and international) context of communication);

Discourse Competence
Understanding how ideas are connected through language means:
• patterns of individual language organization;
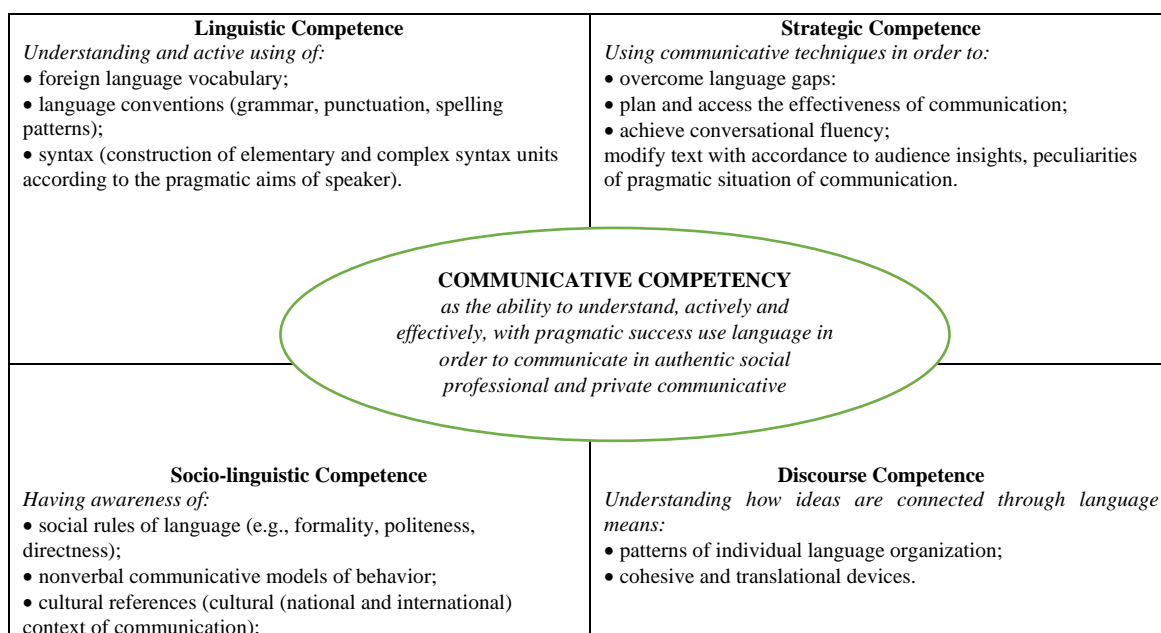• cohesive and translational devices.

Fig. 1. Interrelations of basic structures of communicative competency
Source: Developed by the authors based on the generalization of literature review results and own inferences.

Fig. 1 shows how the authors differ the concepts of competency / competence: linguistic competence, strategic competence, socio-linguistic competence, discourse competence together are the structural components of the general concept of communicative competency. Within the context of the given research, these concepts are in a logical interrelation "Communicative Skills" → "Communicative Competeney" " Communicative Competence", which forms the basis of the experiment. The ascertaining experiment took 3 days. Day One – Individual Entrance Questionnaire and instructions on techniques of performing tasks. In the days that followed, the respondents passed 3 test techniques in a day.

5 Results

Careful examination of the formation of communicative competence of students of HEIs allows us to state that the problem of insufficient maturity of foreign language communicative competence of students is relevant to a wide range of universities, often regardless of the level of economic development of the country, level of EIE of the country in the world rankings of universities. However, the problem of low level of maturity of communicative competence is especially acute for developing countries, in particular those with limited international contacts, and a foreign language (most often English) does not have enough scope there. The transition of a foreign language to passive use negatively affects communicative competence of persons who speak the language as a second or foreign language. In addition, the observation of the teaching and learning process, as well as reflections of the respondents in the course of the entrance questionnaire conducted within the context of this research, revealed that university teachers abused of traditional passive and reproductive models of teaching a foreign language with a focus on grammar and other theoretical issues of foreign linguistics. Such approaches are completely inapplicable: the image of a university graduate who, in theory, masters all the rules of formation of English tenses, but does not understand the living oral and written speech of native speakers and is unable to respond verbally in communicative situations (even to meet

his/her own needs, not to mention the professional use of the language) is almost iconic.

All this constitutes a serious threat and is a precaution stimulating enhanced control over the formation of communicative competence of applicants of HEIs. A differentiated approach to the interpretation of the concepts of communicative competencies and communicative competence allows to clearly distinguish competencies, which are concretized components of the general concept of competence. The basis for the formation of communicative competence is language competency, which structurally consists of a thorough understanding of peculiarities of language organization and skills of using language units in accordance with literary norms and language pragmatics.

Moreover, observations of the process of formation of foreign language communicative competence prove that an important prerequisite for its maturity are also psychological personality traits, which in general demonstrate sociability of a person, ability to keep the communicative situation under control and spontaneously select the necessary communicative verbal and nonverbal means, which would help to achieve the communicative pragmatic goal, staying in a positive, tolerant emotional field with the interlocutor. The reticence of a person, fear of making a mistake, unwillingness to open their mind to the interlocutor, lack of interest in communication will a priori doom the communicative situation to pragmatic failure even with a virtuosic foreign language mastery.

That is why the techniques applied to diagnose communicative competence of students of HEIs within the framework of the ascertaining experiment were built in such a way as to cover the range of factors, which have a positive or negative impact on the manifestation of communicative competence, to the fullest extent possible.

The results of the diagnostics of communicative competence of students are generalized in Table 2.

Table 2. Generalized results of ascertaining experiment on diagnostics of communicative competence of university students

| No of the resp. | Ind.Entr. Quest. | Test on EFL pragmatic competence in: | | | | | | Total Score | % of EFL communicative competence |
		Using impolite address forms	Producing suggestions	Responding to compli-ments	Conver-sational implica-tures	Production of requests	Production of refusals		
1	98	76	56	67	87	43	74	**501**	**72%**
2	67	78	76	56	59	72	83	**491**	**70%**
3	41	52	58	61	64	73	75	**424**	**60%**
4	84	95	85	84	89	91	78	**606**	**87%**
5	67	61	69	72	59	50	66	**444**	**63%**
6	85	81	79	80	90	93	87	**595**	**85%**
7	55	67	84	58	47	66	69	**446**	**64%**
8	68	67	66	72	78	59	61	**471**	**67%**
9	83	88	86	89	81	82	86	**595**	**85%**
10	76	75	77	79	86	82	75	**550**	**79%**
11	75	77	86	82	80	77	88	**565**	**80%**
12	88	96	85	82	89	93	78	**611**	**87%**
13	59	55	59	62	64	65	68	**432**	**61%**
14	90	90	92	91	93	89	87	**632**	**90%**
15	91	95	83	84	89	91	79	**612**	**87%**
16	74	68	69	87	79	87	90	**473**	**68%**
17	89	72	95	91	93	86	87	**613**	**88%**
18	82	95	87	86	89	91	87	**617**	**88%**
19	76	77	69	88	91	62	80	**543**	**78%**
20	69	60	69	71	59	52	64	**444**	**63%**
21	78	72	78	75	69	64	76	**512**	**73%**
22	72	77	89	91	88	79	80	**504**	**72%**

23	87	85	76	59	72	61	69	**509**	**73%**
24	86	62	87	90	87	91	89	**592**	**85%**
25	75	73	71	69	68	66	81	**503**	**72%**
26	90	88	92	92	93	85	89	**629**	**90%**
27	67	51	69	68	59	56	66	**436**	**62%**
28	78	79	87	86	89	91	85	**595**	**85%**
29	79	72	76	77	89	65	81	**539**	**77%**
30	95	91	90	88	85	92	91	**541**	**77%**
							Averagely	**534**	**76%**

According to the processing of the results, the highest level of maturity of communicative competencies among the surveyed respondents is 90%, the lowest - 60%. The difference between them of 30% is significant and indicates a generally significant variability of results. For first-year students, this may be the norm. In the future, it is necessary to apply didactic strategies to overcome the existing difference in the level of maturity of communicative competencies in the direction of its maximum possible improvement of all respondents.

We further propose to generalize the obtained results according to the quality level (Table 3).

Table 3. Qualitative generalization of the obtained results

EFL communicative competence result, %	Quality level	Number of respondents	Number of respondents, %
90-100%	high level	2	6,7%
75-89%	sufficient level	12	40%
60-74	satisfactory level	16	53,3%
≤59	unsatisfactory level	-	-

A significant predominance of respondents with a satisfactory level of maturity of EFL communicative competence allowed to identify the problem of insufficient maturity of foreign language communicative competence. Also, comparing the test results with the data of the entrance questionnaire has allowed to establish that two respondents, who demonstrated a high level of EFL communicative competence, had a contributing favourable factor: both were abroad in an English-speaking environment for more than 3 months. On the other hand, the absence of respondents with an unsatisfactory level of EFL communicative competence (in part due to the selection of entrants with a high level of school knowledge of English according to the EIE) indicates a positive potential for the formation of EFL communicative competence during the following courses of studies subject to active application of tactics of stimulation and appropriate level of motivation of students, stability of professional orientation of a person, etc.

The analysis of the literature on the topic, the author's own observations on the effectiveness of teaching techniques, the analysis of student questionnaires (Individual Entrance Questionnaire; questions 10-12: What learning assignments do you treat as the most effective in terms of foreign language communicative proficiency improving? What is your personal approach to self-improvement of foreign language communicative proficiency? How university programs and ways of teaching might help you to overcome foreign language communicative barriers?) allow us to conclude that the most effective instruments for forming a high level of communicative competence are:

- use of audiovisual aids;
- use of authentic texts;
- method of situation modelling;
- emphasis on group work with opportunities for enhanced communicative interaction;
- stimulation of productive and reproductive language techniques with the predominance of the first ones;
- encouragement of scientific (writing scientific papers in English and active participation in conferences, round tables, scholarly discussions) and creative activities of students;
- virtual communication with a pen-friend or friends from social networks: written speech and video communication.

if possible: study tours abroad, communication with native speakers in terms of university student exchange programs.

6 Discussion

The effectiveness of mastering a foreign language is significantly increased if the learning aim consists in the formation of foreign language professionally-oriented competence with consistent tactics of practicing communicative competencies (Halupka-Rešetar, 2019; Aguirre, 2013). Foreign language professionally-oriented competence is an integral quality of a person, who acquires professional knowledge and trains practical skills in the field of a foreign language. However, the success of methods of forming foreign language communicative competence of university students will be high only under the accompanying conditions of motivation for learning activity, (Jovanovic, 2016) conscientious attitude to learning, maturity of professionally significant personal qualities of the student and behavioural characteristics ensuring future successful foreign language professional activity and application of a foreign language to meet personal communication needs (Ghanem, 2017; O'Dowd, 2018).

The analysis of the research results of the scientists Hussein and Elttayef, (2016) Hussein, (2018) Hussein, Albakri and Seng, (2020) Huang, (2018) Avgousti, (2018) the conducted research and the consequences of the ascertaining experiment showed that the process of purposeful formation of foreign language professionally-oriented competence of students of language departments of HEIs should rely upon methods based on an interactive approach and modernized content of learning materials and technical teaching aids.

An important psychological factor in improving foreign language communicative competence of students of HEIs is overcoming the fear of making a mistake (Al-niaima, 2018; Gałajda, 2017; Jetesbaevna, 2020). In light of this, there is a need to verify approaches to evaluation. At some point of university education, the emphasis should be placed on the communicative component of foreign language teaching, rather than speech literacy. We believe that the process of language acquisition should be conducted in this way. Otherwise, a psychological communication barrier will be formed, and the process of overcoming it will take much more time and effort than mastering the most difficult grammatical topic.

The process of transformation of linguistic knowledge into communicative competence occurs every time a person, who acquires linguistic skills, manages to apply them effectively, correctly and relevantly in accordance with the communicative context (Ahmed & Pawar, 2018; Bagarić & Mihaljević Djigunović, 2007). Moreover, based on the generalization of the

obtained results of the research, we consider it appropriate to introduce the concept of foreign language communicative orientation to outline the stability, continuity and ascending evolutionary development of foreign language communicative competence with projection on lifelong learning and deep learning technology.

7 Conclusion

Consideration of the main characteristics of the process of teaching a foreign language to students of philology and the results of the ascertaining experiment with a wide range of diagnostic techniques allowed us to talk about a departure from the traditional rigid disciplinary model of foreign language teaching in favour of adaptive competence model, which is fundamental for today's higher education. This requires strengthening the socio-pedagogical and professional competence of the student, the harmonious development of communicative competencies. The formation of foreign language professionally-oriented communicative competence of students of philology can be successful provided that the following didactic conditions are taken into account:

▪ the aim and predicted result of learning is the formation of foreign language professionally-oriented communicative competence in the unity of competencies, which are its structural components;
▪ in the process of formation of foreign language professionally-oriented communicative competence of students of language specialties, the interactive approach and motivational technologies are fundamental;
▪ the selection of learning material should be based on relevant topics, the interactive approach should rely upon realistically simulated communicative situations, active use of audiovisual, written, printed language materials, the most frequent and regular involvement of native speakers in learning activities of students;
▪ the maturity of communicative competence implies a balance of both speech literacy and speech virtuosity, the ability to respond to the communicative situation spontaneously, instantly with the help of relevant means of verbal communication;
▪ communicative competencies are not isolated and closely interact with psychological, pedagogical and subject competences.

Communicative competence structurally consists of at least linguistic (grammatical) competency, sociolinguistic competency, discursive competency and communicative strategies – strategic competency. The communicative approach should be based on the communicative professional and personal needs of the student. In the early stages of learning a foreign language, it is necessary to make optimal use of those aspects of communicative competence that the student has formed during the acquisition and use of the native language. If a student has a priori personal problems related to communicative competence as such, any pedagogical tactics to stimulate foreign language communicative competence will be ineffective. In this case, the first step is to overcome psychological barriers to communication.

The obtained research results can be used to observe the process of formation of foreign language communicative competence of students, and methods of stimulating foreign language communicative competence – when developing study programs and directly in the organization of the educational process in universities for students of language specialties.

Further research on the topic may relate to the experimental study of the effectiveness and relevance of specific pedagogical tactics to improve the quality and resistance of foreign language communicative competence. In addition, it is advisable to diagnose the level of maturity of foreign language communicative competence of teachers, as the research has shown that the low level of foreign language communicative

competence is often determined by the low level of its maturity of teachers (especially in the conditions of dominance of traditional models of foreign language teaching).

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INDIVIDUAL ENTRANCE QUESTIONNAIRE
in order to identify the level of conscious attitude to the communicative competence of the student and activity / passivity in improving the communication skills of a foreign language

Instructions: as part of a research project, we would like you to complete the following questionnaire about your pragmatic competence in using English. Your answers will help us ensure the accuracy of the data. You do not need to write down your name. The information obtained will only be used for the purposes of academic research.

- Age:
- Sex: male   female *(circle)*.
- Education:
- Have you spent extended periods of time (over 3 months) in an English-speaking country? If yes, where and how long? What mark did you get in your last exam in English language skills? *(please circle)*
- 90-100 (A);
- 82-89 (B);
- 74-81 (C);
- 64-73 (D);
- 60-63 (E),
- less
- Level of proficiency in English:
- B1
- B2
- C1
- C2 (circle).
1. How could you estimate you level of language proficiency?
2. How could you estimate you level of foreign language communicative proficiency?
3. Do you feel any problems while communicative in English with foreigners?
4. Describe spheres of your foreign language communicative confidence.
5. Describe spheres of your foreign language communicative lack of confidence.
6. What do you (as a language learner) think is the goal of language course?
7. What is your own goal as foreign language learner?
8. What is the difference between use language correctly and use language appropriately?
9. How do you understand the speaking model of language learning?
10. What learning assignments do you treat as the most effective in terms of foreign language communicative proficiency improving?
11. What is your personal approach to self-improvement of foreign language communicative proficiency?
12. How university programs and ways of teaching might help you to overcome foreign language communicative barriers?

INDIVIDUAL QUESTIONNAIRE
on EFL pragmatic competence in using impolite address forms

Dear respondent, the aim of the following anonymous survey is to find out what your verbal reaction is to people who have hurt you physically and/or emotionally. Specifically, we are interested in the expressive language you (would) use to address someone who jumps out of the dark and frightens you on purpose: You, idiot! Or something else? I am not interested in exclamative sentences like Drop dead! Nor in swearwords so please do not use these in your answers.
Imagine you find yourself in the situations described below. Please write down how you would address the person who has hurt you. If you would prefer not to verbalize your thoughts, please put your address into parentheses. If you would not react at all, put a cross on the response line.

1. Here is an elderly lady queuing in front of you at the shop. She loses her balance and steps on your foot with her high heeled shoes.
_____

2. A young man bumps into you on the bus and knocks your bag off your shoulder. He does not apologize, in fact he acts as if nothing has happened.
_____

3. In the street, you see a boy spitting as he passes you by. Unfortunately, the spit hits your new shoes.
_____

4. You are sitting on a bench in the park. Two business people walk past the bench and the young man sitting next to you makes a rude but loud remark about them. When the shocked people turn around, he says it was you who behaved inappropriately.
_____

5. The phone rings. You pick it up only to learn from the police captain at the other end of the line that your father has been beaten up badly and is being taken to hospital. Before you come to your senses, you hear the alleged police captain roaring with laughter – you have been scammed.
_____

6. You are standing at the bus stop. An elderly lady approaches you but rather than chatting about the weather she asks you why you have such dark rings around your eyes – do you have a sleep disorder?
_____

7. You are walking down the street when suddenly, two boys jump out from behind the corner, screaming at you. They frighten you to death.
_____

8. You are driving to work/school. The police stop your car because, apparently, you forgot to switch on the headlights. They inform you that the fine for this amounts to 10,000 RSD. You are baffled and ready to argue because you remember having switched the lights on. At this point, the police officers grin at you and tell you that they were joking, you may go.
_____

9. Your mother's boss asks you to translate four pages of text for him as he doesn't speak a word of English. You accept the job and finish it the next day. You send a mail with the translation only to be informed that you will not be paid because your customer is not satisfied with the quality of the work you did.
_____

10. You are at the doctor's with your 7 year-old brother Tommy, who should be vaccinated. When the doctor approaches the little fellow with a syringe in his hand, Tommy kicks the doctor in the shin.
_____

11. Two girls pass you by in the street as you are walking your lovely little dog. One of the girls says "Look at that ugly dog!", loud enough for you to hear her comment.
_____

12. You are queuing at the box office. The young woman standing behind you sneezes on you without covering her mouth.
_____

APPENDIX C

INDIVIDUAL QUESTIONNAIRE
on EFL pragmatic competence in producing suggestions

Dear Informant, thank you for your time and help. This is an anonymous questionnaire, the aim of which is to find out what strategies learners of English use to make suggestions in various situations.

Please read the following situations in which you are expected to make a suggestion to the interlocutor. Please write the exact words you would say in the given situation.

1. You are sitting in the classroom, waiting for the class to begin. One of your groupmates walks into the classroom and sits right in front of you. You notice that the price tag of his T-shirt has not been removed and it can be easily seen. What do you say to him?
You: _____

2. Your 8-year-old cousin confesses to you that the children at school often make fun of the fact that she has freckles. What suggestion do you make in this situation?
You: _____

3. You younger brother is rather overweight. In an attempt to impress the girl he likes, he puts on a pair of really tight jeans that do not suit his figure. What suggestion do you make in this situation?
You: _____

4. A lecturer who you are not very close with is a heavy smoker. You think that he should stop smoking. While you are talking with him, he smokes again. What suggestion do you make in this situation?
You: _____

5. You go to a restaurant to have lunch. You are very disappointed when you taste what you have ordered because it tastes terrible. A fellow student who is not very close with you enters the restaurant. What suggestion do you make in this situation?
You: _____

6. A little boy you don't know stops you in the street to ask for directions. While explaining to him which road to take, you notice that his flies are undone. What suggestion do you make in this situation?
You: _____

7. A professor whom you know quite well asks you to help her with a presentation. She has to present an important research article in a conference next week. She knows that you are very good at using presentation software, so she asks you for suggestions.
You: _____

8. You see one of your new classmates working in the library very late in the evening, browsing the Internet in order to find new information about electronics. You have just met him but you can tell that he looks very tired. What suggestion do you make in this situation?
You:_____

9. You go to a sweets shop and buy some delicious looking sweets. You are very disappointed when you taste them because they taste awful. A little girl whom you don't know comes to buy the same sweets. What do you suggest to her?
Girl: What delicious looking sweets!
You: _____

10. You see your language instructor working in the department office. She looks ill and clearly does not feel very well. What do you say in this situation?
You: _____

11. You're at a grocery store with your neighbour. She is about to buy some potato chips which are on sale. You notice that the expiry date is September 2015; this is March 2016. What do you suggest to her?
You: _____

12. In a bookshop, you run into a lecturer whom you are not very close with. She is about to buy an expensive book about research methods. Nevertheless, you know that the book costs less in another bookshop. What do you say to the lecturer?
You: _____

APPENDIX D

INDIVIDUAL QUESTIONNAIRE
on EFL pragmatic competence in responding to compliments

Please indicate your answer to the questions below using the following scale:
1 – often
2 – sometimes
3 – never

Block 1
How often do you compliment people in English?_____

Block 2
Which of the following are you most likely to compliment people on?
_____ clothes

_____ accessories
_____ new car
_____ hairstyle
_____ eyes
_____ being physically fit
_____ passing an exam
_____ getting a promotion
_____ getting married
_____ other (please list: _____)

Which of the following people do you address compliments at?
_____ mother
_____ father
_____ sister
_____ brother
_____ female friend
_____ male friend
_____ boyfriend/girlfriend
_____ fellow student
_____ teacher
_____ boss
_____ female stranger
_____ male stranger
_____ other (please list: _____)

Block 3

Now read the following 9 situations and write a response in the blank after "you". The questions are meant to investigate how you respond to a compliment in the real world in your daily conversations.

1. You have given a presentation in an English class. After the presentation one of your classmates comes to you.
Groupmate: You did an excellent job! I really enjoyed your presentation.
You: _____

2. You are a teacher at a language school. You have invited a group of students to your house for coffee and cake that you baked.
Student: I didn't know you were such a good cook! This cake is delicious!
You: _____

3. You work at an international company. After a business meeting with clients your boss approaches you.
Boss: This jacket looks amazing on you!
You: _____

4. You are a teaching assistant at a university department. One of your students approaches you after class.
Student: Your boots are absolutely gorgeous! I wish they were mine!
You: _____

5. You have just had your hair cut in a fashionable style and you bump into a friend in the street.
Friend: That haircut makes you look great! You look a lot younger!
You: _____

6. You started a computer course three months ago. At the end of a lesson your teacher comes up to you.
Teacher: You seem to be very intelligent and you certainly have a flair for computers. And I have noticed that you show a lot of interest in what we do in the lessons.
You: _____

7. You are wearing a new Rolex watch. You meet a friend at your office.
Friend: Wow! What a nice watch! I wish I had one like that!
You: _____

8. You have been appointed sales manager of a large department store recently. You are out of office with a group of colleagues. One of your employees says:
Employee: You've got beautiful eyes.
You: _____

9. The company you have just started working for has arranged an outing for employees. You arrive at the meeting point driving your father's Porsche. Your boss is surprised.
Boss: Now that's a car! I wish I had one like that!
You: _____

APPENDIX E

TEST ON UNDERSTANDING CONVERSATIONAL IMPLICATURES

Thank you for being willing to take this anonymous test. The results of the test will be used for research aimed at determining the ability of learners of English to understand non-literal (figurative language uses words in a way that deviates from their conventionally accepted definitions in order to convey a more complicated meaning or heightened effect) language.

The test consists of several background questions, followed by 20 multiple-choice questions.

Please read carefully the following situations and answer each question by circling ONE of the answers listed (a-d).
1. As Hank is walking along Green Street, a car slows down beside him and the driver, a stranger, rolls down the window and speaks to him.
Stranger: Excuse me. Could you help me? I'm almost out of gas.
Hank: Sure. There's a gas station about 3 blocks on down the street on your right.
What does the stranger mean?
a. She is asking for the nearest gas station.
b. She needs Hank's help to fill the gas tank.
c. She has got lost in this city and is asking for direction.

d. Her car has broken down and she is asking for the nearest garage.

2. As Carrie is preparing for dinner in the kitchen, her son, Jerry, comes to her.

Jerry: Mom, you know Shrek?

Carrie: Jerry, I'm busy.

What does Carrie probably mean?

a. She does not want to listen to Shrek's story.

b. She thinks Jerry can play with Shrek.

c. She asks Jerry to help her fix dinner.

d. She likes Jerry to tell her more about Shrek.

3. Linda and Al are having lunch at the campus cafeteria.

Linda: The Beetles are coming this Saturday.

Al: I have two term papers due next Monday.

What does Al mean?

a. He thinks Linda will help him write his term papers.

b. He has no idea about who the Beetles are.

c. He wants to discuss the Beetles in his term papers.

d. He is unable to go the Beetles show with Linda.

4. Frank wants to know what time it is, but he doesn't have a watch.

Frank: What time is it, Helen?

Helen: The postman has been here.

What does Helen probably mean?

a. She is telling him approximately what time it is by telling him that the postman has already been there.

b. By changing the subject, Helen is telling Frank that she doesn't know what time it is.

c. She thinks that Frank should stop what he is doing and read his mail.

d. Frank will not be able to interpret any message from what Helen says, since she did not answer his question.

5. Jack is talking to his housemate Sarah about another housemate, Frank.

Jack: Do you know where Frank is, Sarah?

Sarah: Well, I heard music from his room earlier.

What does Sarah probably mean?

a. Frank forgot to turn the music off.

b. Frank's loud music bothers Sarah.

c. Frank is probably in his room.

d. Sarah doesn't know where Frank is.

6. John and Tanya are professors at a college. They are talking about a student, Mark.

John: How did you like Mark's term paper?

Tanya: Well, I thought it was well typed.

How did Tanya like Mark's term paper?

a. She liked it; she thought it was good.

b. She thought it was important that the paper was well typed.

c. She really hadn't read it well enough to know.

d. She did not like it.

7. Toby and Ally are trying the new buffet restaurant in town. Toby is eating something but Ally can't decide what to have next.

Ally: How do you like what you're having?

Toby: Well, let's just say it's colorful.

What does Toby probably mean?

a. He thinks it is important for food to look appetizing.

b. He thinks food should not contain artificial colors.

c. He wants Ally to try something colorful.

d. He does not like his food much.

8. Maria and Frank are working on a class project together but they won't be able to finish it by the deadline.

Maria: Do you think Dr. Gibson is going to lower our grade if we hand it in late?

Frank: Do fish swim?

What does Frank probably mean?

a. He thinks they should change the topic of their project.

b. He thinks they will get a lower grade.

c. He thinks their grade will not be affected.

d. He did not understand Maria's question.

9. Jenny and her housemate Darren go to college in Southern California. They are talking one morning before going to class.

Jenny: Darren, is it cold out this morning?

Darren: Jenny, it's August.

What does Darren probably mean?

a. It's surprisingly cold for August.

b. It's so warm that it feels like August.

c. It's warm like usual in August.

d. It's hard to predict the temperature in August.

10. Max and Julie are jogging together.

Max: Can we slow down a bit? I'm all out of breath.

Julie: I'm sure glad I don't smoke.

What does Julie probably mean?

a. She doesn't want to slow down.

b. She doesn't like the way Max's breath smells.

c. Max is out of breath because he is a smoker.

d. Max would be even slower if he smoked.

11. At a recent party, there was a lot of singing and piano playing. At one point, Matt played the piano while Brian sang. Jill was not at the party, but her friend Linda was.

Jill: What did Brian sing?

Linda: I'm not sure, but Matt was playing "Yesterday".

What does Linda probably mean?

a. She was only interested in Matt and didn't listen to Brian.

b. Brian sang very badly.

c. Brian and Matt were not doing the same song.

d. The song that Brian sang was "Yesterday".

12. During a coffee break, Sue is talking to her co-worker Brian about their supervisor, Mrs. Jenkins.

Sue: I do think Mrs. Jenkins is an old windbag, don't you?

Brian: Huh, lovely weather for March, isn't it?

What does Brian probably mean?

a. He thinks weather in this season is nice.

b. He thinks it is not good for Mrs. Jenkins to take a walk outside in a windy day.

c. He does not want to talk about Mrs. Jenkins.

d. He knows Mrs. Jenkins promised to give Sue a nice raise in March.

13. Mike is trying to find an apartment in New York City. He just looked at a place and is telling his friend Jane about it.

Jane: So, is the rent high?

Mike: Is the Pope Catholic?

What does Mike probably mean?

a. He doesn't want to talk about the rent.

b. The rent is high.

c. The apartment is owned by the church.

d. The rent isn't very high.

14. After Jill has withdrawn money from an automated teller machine, her friend Mike approaches her.

Mike: Jill, I need some cash.

Jill: Your credit card also works on this machine.

What does Jill probably mean?

a. She suggests Mike to use his bank card to withdraw some money.

b. She thinks Mike can buy what he wants using a credit card.

c. She does not plan to lend money to Mike.

d. The automated teller machine offers an on-line shopping service.

15. Larry and Mary are talking about a test they recently took.

Mary: Do you think you got an "A" on the test?

Larry: Do chickens have lips?

What does Larry mean?

a. He doesn't want to talk about the subject.

b. His answer to Mary's question is "no".

c. He is not sure what grade he could get on the test.

d. He is curious whether chickens have lips.

16. Lee has spent a lot of money on a new sweater and he asks his friend, Sam, about it.

Lee: How do you like my new sweater?

Sam: It's an interesting color.

What does Sam mean?

a. He doesn't like the sweater.

b. He is interested in the color of the sweater.

c. He thinks it's boring to discuss the sweater.

d. He thinks Lee is color-blind.

17. Two friends, Maria and Tony, are talking about what happened the night before. They had dinner with Sean, a friend of theirs, in a little town just outside Philadelphia. Then, after dinner, Sean left and got into trouble. Now, this morning, Maria and Tony are trying to figure out what Sean did after he left them.

Maria: Hey, I hear Sean went to Philadelphia and stole a car after he left us last night.

Tony: Not exactly. He stole a car and went to Philadelphia.

Maria: Are you sure? That's not the way I heard it.

What actually happened is that Sean stole the car in Philadelphia.

In that case, which of the two friends has the right story—Maria or Tony?

a. Maria.

b. Tony.

c. Both are right. Since they are both saying essentially the same thing, they really have nothing to argue about.

d. Neither of them has the story right.

18. Pat is in a store, looking around, confused.

Clerk: May I help you?

Pat: _____.

Clerk: It's over there by the back entrance – on your right…

What does Pat probably say?

a. Yes, please. I'd like to buy some toothpaste.

b. Hi. Do you have size C flashlight batteries?
c. Hello. I am just calling to ask if you have Marlboros.
d. I have had a serious headache for two days.
19. Hilda is babysitting her two nephews, Tommy and Frankie at home.
Her friend, Peter, calls her up and makes a suggestion.
Peter: Let's get the kids something.
Hilda: Okay, but I veto I-C-E C-R-E-A-M.
What does Hilda mean?
a. She teaches the two boys to spell out ice cream.
b. She would rather give the kids a surprise.
c. She would rather not have ice cream mentioned directly in the
presence or the children.
d. She gives the boys a guessing game. If they win, they can have ice
cream as an award.
20. Hilda is babysitting her two nephews, Tommy and Frankie at home.
The two boys' father, John, picks up the kids in the evening.
John: What did Tommy and Frankie do today?
Hilda: Boys are boys.
What does Hilda probably mean?
a. Tommy and Frankie were very energetic and helped her do a lot of
household chores.
b. Tommy and Frankie missed their parents so they spent the day
crying and nagging.
c. Tommy and Frankie had a very good appetite and had many meals
and lots of snacks.
d. Tommy and Frankie have the kind of unruly behavior we could
expect from boys.

APPENDIX F

TEST ON THE PRODUCTION OF REQUESTS

Imagine you are in an English-speaking country. Please complete the following dialogues/situations in the way you consider most suitable

1. You are terribly late for class. On the way to the university, you see your groupmate, Andy, who, it turns out, is also late for the same class as you. How do you ask for a ride?
You: _____

2. You call your friend Dennis. Dennis isn't home but you would like the person who answered the phone to tell Dennis something.
You say: _____

3. At work, you want a subordinate to work over the weekend so you can finish a project. What do you say?
You: _____

4. George is going to the library. You ask him to return a library book.
George: Well, I'll see you later. I've got to go to the library to return my books.
You: _____

5. Emmy, your niece is listening to music. The music is very loud and is disturbing you. What do you say to Emmy to get her to turn down the volume?
You: _____

6. Today you need to take a half-day leave to go to your friend's wedding party. What do you say to your boss?
You: _____.

APPENDIX G

TEST ON THE PRODUCTION OF REFUSALS

Please read the following 12 situations. After each situation you will be asked to write a response in the blank after 'You'.

1. You are the owner of a bookstore. One of your best workers asks to speak to you in private. Worker: As you know, I've been here just a little over a year now, and I know you've been pleased with my work.
I really enjoy working here, but to be quite honest I really need an increase in pay.
You: _____
Worker: Well … then I guess I'll have to look for another job.
2. You are a junior in college. You attend classes regularly and take good notes. Your classmate often misses class and asks you for the lecture notes.
Groupmate: Oh God! We have an exam tomorrow but I don't have notes from last week. I am sorry to ask you this, but could you please lend me your notes once again?
You: _____
Groupmate: Well … then I guess I'll have to ask someone else.
3. You are the president of a big printing company. A salesman from a printing machine company invites you to one of the most expensive restaurants, Lutece, in New York.
Salesman: We have met several times now, and I'm hoping you will buy my company's printing machine. Would you like to have dinner with me at Lutece to sign the contract?
You: _____

Salesman: Well … maybe we can meet another time.

4. You are an executive at a very large software company. One day the boss calls you into his office.

Boss: Next Sunday my wife and I are having a little party at my house.
I know it's sudden … but I'm hoping all my executives will be there with their wives/husbands. Will you come to the party?
You: _____
Boss: Well, that's too bad … I was hoping everyone would be there.

5. You are at a friend's house watching TV. Your friend offers you a snack.
You: Thanks, but no thanks. I've been eating like a pig and I feel just terrible. My clothes don't even fit me.
Friend: Hey, why don't you try this new diet I've been telling you about?
You: _____
Friend: Well … you should try it anyway.

6. Your boss just asked you to bring a report to him. You can't find the report on your desk because your desk is very disorganized. Your boss
walks over.
Boss: You know, maybe you should try to organize yourself better. I always write things down on a piece of paper so I don't forget them. Why don't you try it?
You: (However, you don't like the boss' suggestion.)
_____
Boss: Well … it was only an idea anyway.

7. You arrive home and notice that your cleaning lady is extremely upset. She comes rushing up to you.
Cleaning lady: Oh God, I'm so sorry! I had a terrible accident. While I was cleaning, I bumped into the table and your china vase fell and broke. I feel very bad about it. I'll pay for it.
You: (Knowing that the cleaning lady is supporting three children.)
_____
Cleaning lady: No, I'd feel better if I paid for it.

8. You teach English at a university. It is just about the middle of the semester now. One of your students asks to speak to you.
Student: Ah, excuse me, some of the students were talking after class yesterday. We kind of feel that the class would be better if you could give us more practice in conversation and less on grammar.
You: _____
Student: Well … it was only a suggestion.

9. You are at a friend's house for lunch. Friend: How about another piece of cake?
You: _____
Friend: Come on, just a little piece?
You: _____

10. A friend invites you to dinner, but you really don't like this friend's husband/wife.
Friend: How about coming to my house Sunday night? We're having a small dinner party.
You: _____
Friend: Well … maybe next time.

11. You've been working in an advertising company now for some time. The boss offers you an increase in salary and a better position,but you have to move to another town. You don't want to go. Today, the boss calls you into his office.
Boss: I'd like to offer you an executive position in our new office in Hicktown. It's a great town only 3 hours from here by airplane! And, your salary will increase with the new position.
You: _____
Boss: Well … maybe you should think about it some more before refusing.

12. You are at the office in a meeting with your boss. It is getting close to the end of the day and you want to leave the office.
Boss: If it's okay with you, I'd like you to spend an extra hour or two tonight so that we can finish up with this work. Can you stay little longer at the office?
You: _____
Boss: Well, that's too bad … I was hoping you could stay.

THE EFFECTIVENESS OF APPLYING THE COMMUNICATIVE APPROACH IN TEACHING ENGLISH AT HIGHER EDUCATIONAL INSTITUTIONS

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Abstract: The research article is devoted to the problem of using communicative methods of teaching English to HEI students. The purpose of the article is to analyze the effectiveness of using a communicative approach in teaching English as a foreign language to students at higher educational institutions (HEIs). In the course of the study, it was determined that the major indicators of the students' communicative competences, in particular their drive to take initiative in communication, the development of listening skills, reflection, free use of various situations of professional communication are enhanced threefold, showing a distinct progressive change. Eventually, it is expected to investigate which of the communicative methods of teaching English to HEI students will prove to be more effective.

Key words: innovations, English language, HEI, communicative methods, teaching methods, educational innovations.
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1 Introduction

One of the main prerequisites of a modern foreign language study program for HEI is the implementation of a communicative method of teaching. The communicative method is a mixture of traditional and intensive methods, which has a great number of advantages. The underlying idea is an approach based on the similarity of language acquisition with that of young children learning their mother tongue for the first time (Akmal, 2019).

The purpose of the study is to experimentally test the study that was theoretically substantiated previously, namely the research of a set of pedagogical conditions that contribute to the effectiveness of the students' communicative competence formation. In the process of achieving the goal of this study, the following tasks were addressed:

1. To identify the formation level of the personal and professional communicative qualities in learners of English.
2. To test experimentally the method of forming the communicative competence in HEI students.

The teaching process evolves around the learner of the English language. To elucidate the new words and rules, the teacher uses familiar vocabulary, explains grammar with visual illustrations, gestures and facial expressions. The purpose of learning a foreign language is not only professionally-oriented learning of four interdependent language activities (listening, speaking, reading and writing), but also a good command of a foreign language to express their thoughts. The teaching English methodology studies the ways that lead to language acquisition,

takes into consideration the form and content of language phenomena, as well as their functions, primarily the communicative one, and seeks to teach students to exchange information by using the language studied, to participate in the language process (Cash & Culley, 2015).

Teaching English through communicative methods entails such language-learning activities that include all manifestations of the native speaker's language behavior. This study emphasizes the fact that the ultimate goal of teaching English in the HEI, along with reading literature in the specialty, the ability to construct a message, participate in a conversation, discuss the material that is read. That said, the future HEI graduate must have communicative professional skills – these are the features necessary for the organization of interaction and information exchange, e.g. with foreign professionals (Kilgour et al., 2015).

The main means of such interaction is natural language, which has informational and communicative properties. Language is a form of human communication in a specific social context (Burns, 2010). At the same time, information is the most reliable and most accomplished means of social interaction. Therefore, strengthening the communicative orientation in the study of English in the HEIs is one of the most important reserves for improving the efficiency of training of future specialists, who will face the latest challenges of today. The main means of such interaction is natural language, which has informational and communicative properties. Language is a form of human communication in a specific social context (Burns, 2010). At the same time, information is the most reliable and perfect social means of communication. Thus, strengthening the communicative orientation in the study of English in the HEIs is one of the most important prerequisites for enhancing the efficiency of training the future specialists, who will deal with the latest challenges of current realia.

Thus, (Svyrydiuk, 2019) notes that the introduction of communicative tools in the process of teaching English enhances the level of learning material. On the other hand, (Passov, 1991) holds that the communicative components in the process of learning English can increase the level of learning motivation of HEI students (Krasnopolsky & Tyshakova, 2020). believes the use of communicative means to be an effective method of forming foreign language professional competencies in HEI students (Borysko, 2011). notes that the formation of foreign language competencies of the future specialist should be based primarily on the use of communicative teaching methods (Zagorodnya & Stogniy, 2019). put for the idea of applying the communicative methods to foster intercultural communication of future professionals. Psychologists and educators characterize the student's activity in the learning process as "mental effort" or "initiative, interest" (Disman et al., 2017), as "the ability to change the surrounding reality" (Kasumi, 2015).

With that in mind, in order to achieve a creative level of cognitive activity, the teacher must specifically create certain conditions for the activation of cognitive activity and use a system of tools and techniques, the implementation of which would enhance learning. (Astawa et al., 2017) Such techniques include, e. g. the use of learning situations and a system of professionally oriented role-playing games (Lee, 2019).

The essence of the communicative concept during the teaching of English in HEI draws heavily on the idea that in the process of training, special conditions are created in which students, drawing on the knowledge acquired independently solve communicative problems by means of English. The emphasis is laid on the way of organizing training with the help of active methods and developing motivation for the formation of foreign language professionally-oriented communicative competence of the future specialist (Smyrnova & Musorina, 2016).

Teaching English is ever increasingly viewed as a way of addressing not only of communicative and cognitive, but also developmental tasks (Svyrydiuk, 2019). This method focuses on teaching the adequate expression of opinions depending on the goals, conditions and interaction participants. Language is understood by methodologists as a phenomenon of culture and civilization.

The formation of cognitive activity in the process of learning English is crucial taking into account the self-esteem and self-control of students. Currently, the HEI professionals have focused their efforts on such significant issues for modern methodology as:

1. Substantiation of the theoretical foundations of English language teaching at different educational stages in the context of modern personality-oriented philosophy of education and the main provisions of the theory of intercultural communication.
2. Development of state standards on foreign languages (including English), modern programs and coursebooks of foreign languages for different educational levels, as well as including for different national and regional conditions.
3. Research of theoretical and applied aspects of professionally-oriented teaching of foreign languages in the conditions of multilevel system of experts training in various directions of preparation (Smyrnova, 2017).

As (Vasylyk, 2019) notes, the formation of foreign language communicative competence of students of non-language specialties should become an integral part of their professional training. According to (Zagorodnya & Stogniy, 2019), foreign language communicative competence envisions the acquisition of knowledge and skills that would help to act in a specific foreign language situation, and also contributes to the formation of intercultural competence of a person in combination with their professional activity.

In psychological and pedagogical research, various components of the complex synthesis of structures that form competence are identified. Cognitive (according to the terminology of some researchers also called substantive, theoretical, conceptual or informational) is the most salient component that can yield the measured results.

The educational communication in the university is known to be limited by the role interaction "teacher-student" and "student-student", takes place during school hours and has a generalized purpose – learning a foreign language (in the context of our study). Therefore, we shall proceed to consider, first of all, the role of this discipline in the formation of communicative competence of students (Kobayashi, 2018).

The specifics of learning a foreign language involves a number of features, such as: the duration of the learning process, an increased complexity of language activities, the need to regularly do various exercises assigned, the remoteness of the ultimate goal, etc., which promote the development of such traits as diligence, perseverance, patience, determination. In particular, to perform any task in a foreign language, the student must accomplish plenty of operations.

The consolidation of communicative knowledge and skills is hardly possible without mastering the language tools by which communication is structured. However, the knowledge of words (vocabulary), grammatical forms, constructions, which is often the process of learning a foreign language in high school, is necessary but not sufficient. A specific feature of the subject "Foreign Language" is the constant presence of a communicative situation. When interacting people not only send and receive information, but also get to know each other (Khan, 2013).

The major mechanisms of human cognition in communication are, as we know, identification, empathy, reflection. It is the best option for every communicator to know and use these mechanisms. Basically, in the process of communicating in the native language, it occurs automatically, often unconsciously, spontaneously. Communication of students at foreign language classes facilitates self-control and is a favorable "foundation" for meaningful training of communication skills. Thus, in the process of communication in a foreign language, taking into account the peculiarities of the communicative situation encourages the trainees to better understand their partner. For example, if, when constructing a statement, the student takes into account such factors as the listener's awareness, formal or informal mode of communication, etc., then this statement becomes more effective. Observing the reaction of the interlocutor, students decide whether more arguments are needed, whether any subjective characteristics are appropriate, whether opposition or generalization is necessary, etc.

Communicative tasks related to paraphrasing, both at the level of words and at the level of supra-phrase unity, teach the students to establish relationships between specific and generic concepts, to express the same opinion with the maximum possible number of language options, which brings variety to communication.

The materials used in training must be aimed at the formation of competent communication. According to the results of a number of Council of Europe projects aimed at developing a system of teaching foreign languages in the framework of the communicative approach, competent communication includes the language competence (command of language material for use in the form of language expressions); sociolinguistic competence (ability to use language units according to communicative situations); discursive competence (the ability to understand and achieve coherence in the perception and generation of individual statements); "strategic" competence (the ability to compensate by verbal and nonverbal means of language deficiencies); socio-cultural competence (the degree of familiarity with the socio-cultural context of language functioning); social competence (ability and willingness to communicate with others) (Kasumi, 2015).

Apart from the universally accepted types of speech activity (reading, listening, speaking, writing) and structural-linguistic formations (dialogue, monologue, different varieties of speaking and messaging, etc.), the communicative approach to foreign language learning also takes into consideration the perception, that is communication as a process of information transfer and interaction; the specifics of human speech behavior (language etiquette, communication techniques in different situations, role repertoire of verbal impact in various situational and thematically conditioned acts of communication).

The contemporary methodological concepts suggest focusing on the English language and the implementation of contextual learning. The solution to this problem is feasible only on a broad basis of integration with such scientific fields as philosophy of language, linguistics, psycholinguistics, linguosociopsychology, etc. Considering the contributions of methodology, psycholinguistics, psychosociolinguistics, etc. the linguopedagogical approach forms the personality under the influence of professional information studied in a foreign language. In such a way a foreign language professional communicative competence is formed, which includes language competence, professional competence, as well as behavioral and information competence according to the level of age and professional knowledge (Hin, 2017).

Drawing on the analysis of the theory and practice of the problem, we can conclude that the communicative qualities of the future specialist can be formed in the process of professional training and the leading role may belong, alongside the professional disciplines, to the foreign language while making use of the professional literature (Akmal, 2018). However, so far there is no in-depth research in students that would confirm the effectiveness of the perceiving the educational material specifically by students (Agbatogun, 2014).

2 Methods and Materials

During the study, the available materials on the effective use of the communicative method in teaching English were carefully analyzed. Drawing on the purpose of the experimental work, a thorough selection of exercises aimed at the formation of communicative skills in all types of speech activity was carried out. In the process of working on the teaching of monological and dialogical speech, various situations were elaborated, in which way the students acquired the ability to exchange information, express attitudes (confidence, doubt, criticism, compassion), language etiquette; learned to put questions in English, to confirm or deny something; perform language actions (offering services, advice, etc.).

A set of the following pedagogical conditions was developed and tested:

- the development in university students of certain personal and professional communicative qualities;
- contextual-situational approach to foreign language teaching;
- learning a foreign language on the basis of communicative exercises that facilitate the formation of communicative skills.
- In the course of the study the following main components of communicative competence were identified:
- structural (cognitive, motivational-evaluative, reflexive);
- functional (perceptive, linguistic, interactive-practical).

The positive changes that have taken place under the influence of experimental methods are highly likely to be the best way to testify to the quality and efficiency of the studied processes is. For example, to assess the impact of communicative training on personality, it is important to find out what changes have taken place in each student: whether he became more open and confident in communication, learned to understand verbal and nonverbal language of the interlocutor and so on.

A total of 222 respondents were interviewed – 1st and 2nd year students of the humanitarian faculties of several universities (Khmelnytskyi Humanitarian and Pedagogical Academy, Vasyl Stefanyk Precarpathian National University, Khmelnytskyi National university). Without dwelling on the substantive points, we are bound to say that if all the lists of personal characteristics were put together, a fairly long list would be drawn. When studying the qualities offered by the students, it became clear that many of them were mentioned repeatedly, differing only in their wording. The sample of such a number of students is representative and reflects the level of foreign language competencies in HEI students of humanitarian faculties.. Students were invited to take part in an online lecture after which they had to answer open-ended questions.

To obtain the primary information, the most common characteristics (in the form of qualities, skills, abilities, readiness, etc.) were selected, which, in the opinion of students, are the most typical for an ideal communicative partner, such as rational use of language, rich vocabulary, language tools, flexible behavior. communication, logical speech, etc. Then all the selected semantic units, close in meaning, were combined and described using the appropriate term, hereinafter referred to as "quality".

Thus, a list was selected, which included 17 communicative qualities: a rational use of language; having good manners of communication and pleasant voice; choice of language tools available to the interlocutor; observance of norms of social and communicative interaction; adequate assessment of the situation and the interlocutor; coherence and logic of statements; flexibility of behavior in communication; adequate emotional charge of language; focus on humanistic communication; significance of the statement for the interlocutor; adequate self-esteem; adequate use of non-verbal communication; manifestation of adequate activity in communication; efficient design of speech; equal and friendly position in relation to the partner; striving for self-improvement in communication; richness of speech (Passov, 1991).

Next, the obtained data were summarized in a unified scale and they were assigned a reference number to each of these qualities. After assigning a reference number, the priority of these qualities was revealed in each of the above aspects of the communicatively competent personality.

To assess the overall qualitative changes in the formation level of professional communicative competence and communicative qualities and foreign language communication skills in particular, the nonparametric criterion "x-square" was used.

The above method of estimating dynamic changes allows to draw conclusions regarding the results of the experiment with a sufficient degree of probability due to the fact that it allows not to consider the analyzed statistical distribution as a function and does not require any preliminary calculation of distribution parameters and applies to ordinal indicators, which in our case are identified at the level of communicative qualities and skills formation.

Estimation of quantitative changes in the level of communicative qualities and communication skills formation was carried out using calculations of the average indicator (AI) and efficiency coefficient (EC) according to the formula:

$$AI = (a + 2b + 3c) : 100 \qquad (1)$$

where a, b, c is the number of students who are at low, medium and high levels of communication skills and abilities.
The effectiveness of the experimental study was calculated by the formula:

$$EC = AI_{EG} : AI_{CG}, \qquad (2)$$

where AI_{EG} – the average in the experimental groups; AI_{CG} – the average in the control groups.

The absolute increase in the formation level of the G-indicator reflects the difference between the initial and final values of the studied factors:

$$G = AI(f) – AI(i) \qquad (3)$$

AI(i) – the initial value of the average indicator, AI(f) – its final value. Consequently

$$G_{CQ} = 2{,}11 – 1{,}63 = 0{,}48;$$
$$G_{CS} = 2{,}23 – 1{,}55 = 0{,}68. \qquad (4)$$

The results of assessments on the state of the formation levels of communicative qualities and skills are presented in Tables 2 and 3. The criterion "x-square" was calculated by the formula:

$$x^2 = (f_1 – f_2)^2 / (f_1 + f_2) \qquad (5)$$

where f_1 and f_2 – the frequencies of the compared samples.

Basically, in order to obtain the reliable and objective data, it is only logical to diagnose changes in the individual profile of the communicatively significant personality qualities, value orientations, motivation in terms of interest in communicative activities. The result of these changes in personal and professional growth should be the communicative competence. Therefore, the final criterion is to logically choose the formation levels of this integrative quality of personality.

The formation level of communicative competence in students was determined by the following criteria:

- the degree of manifestation in students of the studied personal and professional communicative qualities;
- the degree of the students' mastery of communication skills;
- degree of the students' knowledge of a foreign language.

Table 1. Formation level of communicative competence

Low	Medium	High
knowledge of the basics of communication, as well as the ability to apply them to changing environments are expressed weakly; language characteristics are low; inability to control own behavior in communication	knowledge of the basics of communication is satisfactory, the inability to apply them in a changing environment; indicators of the language component are characterized by average indicators; the humanistic communication value orientations exist, but do not really manifest themselves	communicative priorities are aimed at the humanization of communication and attitudes; the language component is highly developed; high control over own behavior in communication, the ability to influence the interaction partner is of great importance.

Source: Passov YI (6)

The study was conducted using the Internet technology (Zoom), in particular all the tasks were completed online. Also, the students who participated in the study, were interviewed in Zoom.

3 Results

In the process of observing the students, it was noted that with the help of communicative exercises there occurred an intensification of their activities, effective acquisition of knowledge in class. They are willing to make on the spot dialogues on a given situation, to express their attitude, air opinions about what they have heard, to enter into a conversation, etc. Such tasks not only contribute to the formation of students' communication skills, but also to the formation of their overall professional communication competence. Before the experiment, students were asked to name the personality qualities which in their opinion should have the ideal communication partner (Darwish, 2016).

The research on foreign language teaching, as well as practical experience show that a dialogic language tends to be more effective for the formation of communication skills, through which students can realize their language potential to the fullest degree (Cash & Culley, 2015).

Learning dialogical speech was carried out in several ways: using a sample dialogue, based on the step-by-step composition of the dialogue and by creating communicative situations. The work on the first method was aimed at mastering by students of exemplary expressions in a foreign language, operating with language material in dialogical speech, performing various transformations of the dialogue, etc.

Step-by-step training (Cash & Culley, 2015) in dialogue was aimed at students' mastering the tactics and scheme of building a dialogue depending on speaker's intentions, developing skills and abilities to build a dialogue depending on the speaker's intentions, developing skills and abilities to build a dialogue for a given situation. Teaching dialogical (Liskin-Gasparro, 2007) speech through the creation of situations involved students mastering the skills indispensable for adequate communication in any situation in accordance with the communicative tasks in specific communication conditions.

At the initial stage of the experiment, students named priority qualities, for example (among the functional components of communicative competence):

Further we compare the data received and present them by means of the diagram (Figure 1):
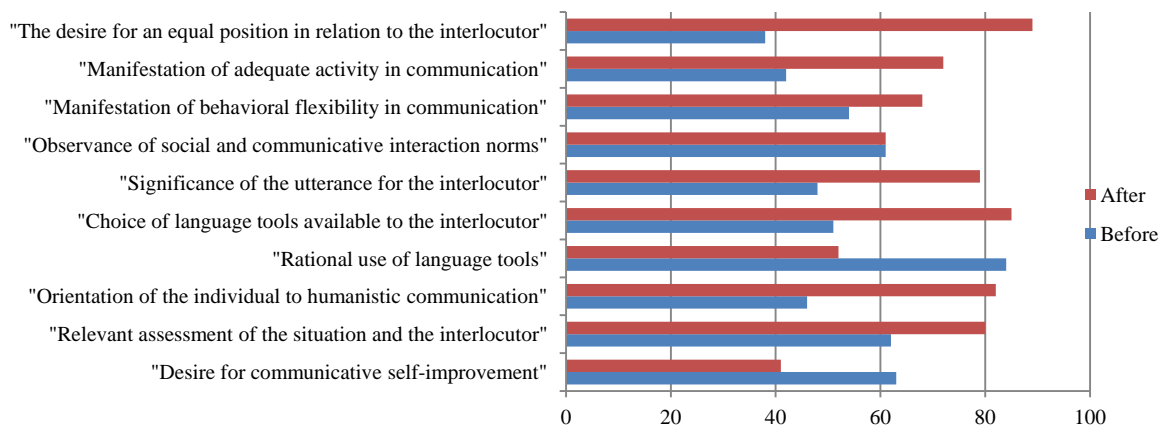

Figure 1. The change in the priorities of the functional component of communicative competence
Source: Compiled by authors on the data of research

Analyzing the data, we can say that students have solid knowledge of the basics of efficient communication, they maintain an interest in communicative self-improvement. The defining values in communication are personality, responsibility, creativity and individuality. Indicators of the language component are predominantly characterized by a high percentage. The flexibility of behavior, as well as strong knowledge in the context of the interactive-practical component of communicative competence are realized in "supportive relationships", emotional backing, relevant communication.

To identify the effectiveness of the experiment, we show the dynamics of the development of a overall image of the communicative "self" in students. The functional components of communicative competence (perceptual, verbal, interactive-

practical) and structural components (motivational-evaluative and reflexive) were monitored and they are presented in Table 2 and 3. Assessment of quantitative changes in the formation level of communicative qualities and communication skills is presented in Table 4.

As it is shown, the AI in communicative qualities in the experimental group increased from 1.82 to 2.30; on communicative skills - from 1.60 to 2.37; and in the control group, respectively, in terms of communication skills - from 1.44 to 1.91 and in terms of communication skills - from 1.50 to 2.08, which allows us to conclude that the indicators in the experimental group were higher than in the control group (Figure 2). The absolute increase in the level of formation of communicative competencies is presented in Table 5.

Table 2. Dynamics of the formation level of personal and professional communicative qualities in students

Stages	Number of students	Number of students (in %)			
		Low level	Average level	High level	AI
1	Total: 222	41.6	39.7	18.7	1.77
	EG 120	a34.2	49.5	16.3	1.82
	CG 102	57.3	41.7	1	1.44
2	Total: 222	34.9	35.1	30	1.95
	EG 120	23	53	24	2.01
	CG 102	42	44.5	13.5	1.72
3	Total: 222	26.9	30	43.1	2.16
	EG 120	7.2	55.6	37.2	2.30
	CG 102	28.1	53.1	18.8	1.91

Source: Compiled by authors on the data of research

Table 3. Dynamics of the formation level of foreign language communication skills in students

Stages	Number of students	Number of students (in %)			
		Low level	Average level	High level	AI
1	Total: 222	60.9	39	0.1	1.39
	EG 120	43.6	53.1	3.3	1.60
	CG 102	52.6	44.5	2.9	1.50
2	Total: 222	45.9	48.6	5.4	1.59
	EG 120	32.8	36.9	30.3	2.00
	CG 102	39.9	50.4	9.7	1.69
3	Total: 222	21.5	53.6	21.3	2.03
	EG 120	4.1	54.8	42.7	2.35
	CG 102	16.2	58.4	22.9	2.06

Source: Passov YI (6)

Table 4. Dynamics of indicators of AI and EC at different stages of research

Group	Stages of research											
	1				2				3			
	CQ	CQ	CQ	CS	CQ	CS	CQ	CS	CQ	CQ	CQ	CS
	AI	EC	AI	EC	AI	EC	AI	EC	AI	EC	AI	EC
EG.	1.82	1,2	1.60	1.07	2.01	1.21	2.00	1.12	2.30	1.22	2.37	1.1
CG.	1.44		1.50		1.72		1.69		1.91		2.08	4

Source: Compiled by authors on the data of research

Table 5. Frequency of comparing the samples

Levels	Number of students (%)				X2	
	Initial stage (f1)		Final stage (f2)			
	CQ (com. qualities).	CS (com. skills)	CQ (com. qualities).	CS (com. skills)	CQ (com. qualities)	CS (com. skills)
low	41.6	60.9	26.9	21.6	3.15	18.72
medium	39.7	39.0	30.0	54.1	1.35	2.45
high	18.7	7.1	43.1	24.3	9.63	24.0

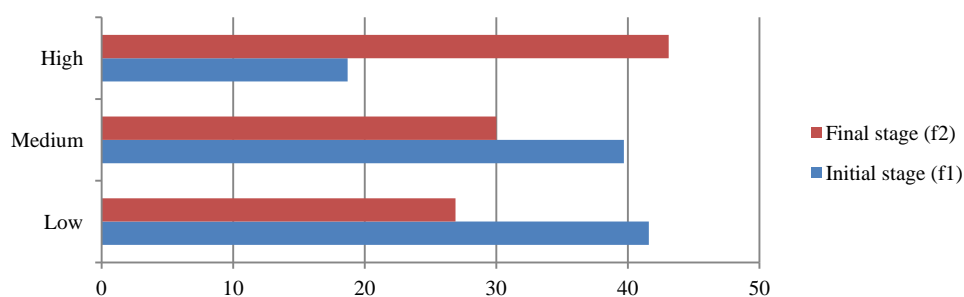Source: Compiled by authors on the data of research)

Figure 2. Indicators of qualitative changes in the formation level of communicative qualities
Source: Passov YI (6)

The presented tables show that the formation level of communicative qualities and foreign language communication skills in law students at the final stage increased almost three times compared to the initial stage of experimental research.

4 Discussion

Overall, the diagnostics showed changes in the initial state of the structural components of communicative competence in students:

- according to the cognitive component, the general level of language training of students has increased, the basics, principles of conducting conversations or discussions, interviews have been studied;
- according to the motivational-evaluative component, the focus on humanistic communication has consistently yielded priorities;
- according to the reflexive component, students gained experience of self-cognition and self-research, learned to analyze their communicative actions, as well as joint

actions with other people, felt a real opportunity to revise their own communicative behavior.

Thus, the analysis of the obtained data allows to draw conclusions about the progressive changes in the formation level of the studied phenomenon in students and allows to state the fact that a set of pedagogical conditions was developed and tested: the development of certain personal and professional qualities in students; contextual-situational approach to foreign language teaching; teaching a foreign language drawing heavily on communicative exercises that help increase the efficiency of students' communicative competence formation is necessary and contributes to the overall growth of the professional training level of future lawyers (Liskin-Gasparro, 2007).

In this study, in contrast to similar (Littlewood, 2011) studies it was found that the student's communicative competence is expressed in a set of qualities that are consistent with the reference profile of the ideal communication partner (Oradee, 2013).

This integrative quality of personality is due to the motivation of communication, manifested in the ability of the communicant to adequately correlate their own communicative and situational constructs with the communicative and situational constructs of the communication partner (Chimshir, 2018). Supposing that at the initial stage of the experiment the level of communicative competence of students was defined as "low", then as a result of implementing a set of measures to develop communicative qualities and skills of students in the form of experimental methods of conducting foreign language classes using the textbook "English for Students", as well as a selection of educational material focused on the communicative approach in foreign language teaching, positive changes were obtained in the indicators of the communicative competence components (Wirawan, 2019). The study of changes in the formation level of professional communicative competence was carried out using qiuzzes, questionnaires, rankings, scaling (Yusupova, 2020).

Drawing on the analysis of the obtained experimental data, it can be concluded that the average indicator of communicative qualities in the experimental group increased from 1.82 to 2.30; on communicative skills - from 1.60 to 2.37; and in the control group, accordingly in terms of communicative qualities – from 1.44 to 1.91 and in terms of communication skills – from 1.50 to 2.08, which allows us to summarize that the indicators in the experimental group were higher than in the control group. In dialogues, discussions, role-playing games, students acquired the ability to conduct business negotiations, conversations, presentations, learned to solve communicative problems.

5 Findings

The relevance of the study is substantiated by the need to elicit more effective means of teaching English in HEIs, because future professionals should efficiently integrate into global cultural and scientific processes. Mastering a high level of foreign language competences will help to enhanve the intercultural interaction and help future professionals to be more efficient in their field.

Thus, the results of the research accomplished provide a basis for a general conclusion about the promising resource of the developed system of students' communicative competence formation in the process of learning a foreign language. At the end of the pedagogical experiment, analyzing the data, we can say that students have a strong knowledge of the basics of competent communication, tend to maintain an interest in communicative improvement. The defining values in communication are personality, responsibility, creativity and individuality. It should be emphasized that this study does not claim to be a full-scale and comprehensive coverage of the problem. Its new unexplored aspects were partially revealed and researched, as well as the complex of pedagogical conditions which promote the efficiency enhancement of communicative competence formation of the future specialist was considered.

The promising perspective for further research could be the elaboration of the feasible and accessible forms and methods of forming the communicative competence of future professionals, making ample use of the latest teaching methods of a foreign language; the examination of conditions and principles of strategic planning of the development process, formation of future specialists' readiness for professional activity. The conducted research provides an opportunity to carry out a more thorough work in the future in the field of improving the teaching of English in HEIs.

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Primary Paper Section: A

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TEACHING AND LEARNING IN HIGHER EDUCATIONAL INSTITUTIONS BASED ON SCIENTIFIC APPROACH: SUCCESSFUL PRACTICES

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Abstract: This research aimed at studying the experience of using scientific approach techniques in teaching and learning in the world best universities. This goal was achieved through the secondary sociological statistical analysis of data, common and mathematical methods. It was found that the researcher skills developed during studentship allowed some graduates of the considered higher educational institutions (HEIs) to achieve significant personal success, as well as make their countries famous, promote their development by leading them, or establishing companies, making profits and creating jobs. The results of this study can be useful for teachers and researchers working on improving the efficiency of teaching and learning in HEIs.

Key words: university rating, curriculum, student research, teaching in HEI, scientific method

1 Introduction

In the era of rapid scientific and technological progress and the development of information technology, when the volume of information is growing rapidly while quickly losing its currentness, the education system faced the problem of finding new approaches to teaching and learning in higher educational institutions (HEIS). Simple memorization of long-known laws of nature is insufficient for the training of highly qualified competitive specialists, and the number of theories that have emerged over the past few decades do not provide such a possibility. In addition, in a few years they may become outdated. HEI teachers and scholars around the world are working to solve this problem. In addition, the economies of countries are mainly developing not because of the subsoil they use, but innovations created by scholars of these countries. Therefore, the scholar's role has recently increased significantly, which emphasizes the urgency of preparing the younger generation of scholars.

It is important today to find such approaches to teaching and learning that optimize the educational process in HEIs, and will be able to give students the necessary knowledge, skills and abilities to fulfil themselves in life. There are many works in the scientific literature, which consider different ways to improve the quality of higher education. But there is a need to generalize the existing approaches to teaching and learning in HEIs, and to study successful practices, in particular, the scientific approach.

(Yermachenko & Derykhovska, 2017) have already studied the problems and outlined the opportunities for higher education systems in different countries. (Sheikh, 2017) studied the challenges and opportunities of higher education in India. (Pinheiro et al., 2019) dealt with the features of higher education in Europe, in the United States — (Salvioni et al., 2017), Saudi

Arabia — (Aldiab et al., 2019), Malaysia —(Meylinda et al., 2018), Indonesia — (Siayah & Setiawan, 2020; Bublyk et al., 2019), as well as (Yermachenko & Derykhovska, 2017) and (Sahaydak et al., 2020) studied the situation in Ukraine.

(Pinheiro et al., 2019) described the model of a European university on the example of the universities of Denmark, Sweden, Finland and Norway. They view universities as a sector of the economy and try to determine roles for university administration, faculty and academics in order to increase the productivity of their joint work.

(Salvioni et al., 2017) studied the American model of higher education and analysed the content and methods of teaching. (Drummond & Fischhoff, 2017) proved that the level of education influences a person's worldview and his/her attitude to global, for example, political or religious issues.

Among the proposed methods that should help raise the effectiveness of education, (Aldiab et al., 2019) propose, for example, to use learning management systems (LMS) in addition to the traditional classes in HEIs, which provide access to lectures at any time, a convenient, objective way of taking exams, receiving feedback, receiving assignments and discussing problems during video conferencing.

(Yermachenko & Derykhovska, 2017) argue that the focus of universities on research is the current global trend in higher education. Students are involved in research while studying at the university, thus acquiring the ability to carry out scientific research, design, model, engage in inventive activities.

(Sahaydak et al., 2020) studied the influence of scientific approach on building students' worldview in general, and the system of values, erudition, safety culture and environmental awareness in particular.

(Lozano et al., 2019) and (Salvioni et al., 2017) deal with the application of the scientific approach to building basic principles of sustainable development. (Sahaydak et al., 2020) considered the forms of student activity that help in the implementation of a scientific approach to learning.

(Harlin, 2018) showed the benefits of using scientific methods in teaching and learning. (Drummond & Fischhoff, 2017) pointed out the shortcomings cause by excessive enthusiasm for the scientific method in teaching. (Stella, 2020) investigated the attitude of students to the use of a scientific approach in learning. (Balzyn & Ergyn, 2018) found that students mostly abandoned the stereotype "every scholar is a bit crazy". Now, the teacher is perceived as a leader in science, a mentor. (Stella, 2020) also emphasizes that the scientific approach has shifted students' attention from the teacher's personality to the object of study, and made them change the attitude to learning and to the educational institution to a more positive one.

There are different interpretations of the scientific approach. Oxford University researchers (Cullinane et al., 2019) argue that there can be no single interpretation of the "scientific method" as a hypothesis test by experimental means. It should be considered more broadly. It should include offering a hypothesis, planning and conducting a study, analysing the data obtained, making explanations and drawing conclusions.

(Bublyk et al., 2019) conducted a detailed analysis of the scientific component of higher education systems in different countries and in Ukraine. However, there are still limitations in the use of the scientific approach in teaching and learning in HEIs. The scientific method is widely used in students' term papers, dissertations, but little is used directly in the acquisition of new knowledge, for example, during lectures, seminars, and even during laboratory or practical work. This research aimed at

studying the successful experience of applying scientific approach in teaching and learning in the world best universities, which will allow its widespread introduction into the educational process of all HEIs.

To achieve this goal, we set the following objectives:

1. Show how the application of the scientific approach in teaching and learning in HEIs impacts the professional fulfilment of their graduates.
2. Determine the impact of the level of quality of higher education on such indicators of development of society and the country as a whole as the Global Innovation Index, the Human Development Index, the number of patent applications and GDP per capita (Global innovation index, 2019; Human development index, 2019; World Intellectual Property Organization. *Statistical country profiles,* 2019; International Monetary Fund.   *World Economic Outlook Database,* 2020).

2 Methods

The successful practices of applying the scientific approach to teaching and learning in HEIs were studied in the following stages: 1) the world best universities were selected for research; 2) we studied their structure, as well as areas of training of students and areas of research; 3) we examined the approaches to teaching at selected universities, curricula and course programs taught to students, as well as the requirements for knowledge, skills, abilities that they must acquire; 4) we analysed in which areas university graduates have succeeded and what achievements they have; 5) we assessed how the level of quality of higher education in the country affects the Global Innovation Index, the Human Development Index, the number of patent applications and GDP per capita (Global innovation index, 2019; Human development index, 2019; World Intellectual Property Organization. *Statistical country profiles,* 2019; International Monetary Fund. *World Economic Outlook Database,* 2020).

The World University Rankings 2021 (The world university rankings, 2021) were used for sampling and implementing the first stage of the study, which summarizes information obtained from 1,500 science-intensive HEIs of the world. This ranking of universities is based on 13 performance indicators divided into the following five groups: education, research, citations, international relations, income in the industry. The subjects selected were top ten 10 universities in this ranking.
The fourth stage of the study was implemented with the sample consisted of well-known graduates of two universities in the top ten as (The world university rankings, 2021) states.

The sampling procedure of the fifth stage was as follows: we randomly selected countries included in (21), which was made by comparing national performance in four areas: the strength of the higher education system (evaluates the place of the country's universities in the overall ranking of universities), accessibility (the ratio of the number of places in the country's universities to the country's population), the results of the main components of the system (results of the country's leading institution in the world ranking), and economic factor (the impact of state investment in the higher education system).

The second and third stages of the study involved common methods, in particular, the review of the scientific literature on the application of the scientific approach in teaching and learning in HEIs studied in this paper.

At the fourth stage of the research, we used statistical analysis of available data on graduates of HEIs in order to identify the impact of scientific approaches used in teaching and learning in HEIs, their professionalism, as well as social, economic life and science development in the country.

Mathematical methods were used at the fifth stage of the study, in particular methods to determine functional dependencies, in order to assess how the level of higher education in the studied

countries affects such parameters as the Global Innovation Index, the Human Development Index, number of patent applications and GDP per capita (Global innovation index, 2019; Human development index, 2019; World Intellectual Property Organization. *Statistical country profiles,* 2019; International Monetary Fund. *World Economic Outlook Database,* 2020).

3 Results

In order to study the experience of teaching and learning in the top ten HEIs in the world according to (The world university rankings, 2021), we analysed the content of curricula and programs, as well as the research and methodological framework they have. The results of the analysis are presented separately for each university.

1) Oxford University (Oxford University Official Website, 2021) The review of curricula and plans showed that the main role in managing the process of implementing the scientific approach in teaching rests with the teacher. It is he/she who should lead the student to a research problem and evoke the desire to solve it. In this case, the student should use various methods of scientific research, analysing changes over time, grouping and classifying certain objects of research, noting patterns. Besides, experiments should be conducted where one can influence the change in parameters and where one can only observe their change and measure it. The students should explain the results using various sources of information, as well as their own knowledge and understanding of the studied processes (Cullinane et al., 2019). The scientific approach excludes the possibility of the teacher presenting a ready-made algorithm for solving the scientific problem facing the student, which makes students think that science is too simple and never unsuccessful.

It should be emphasized that the scientific method does not always have a strictly defined structure. The history of great discoveries knows many cases when scientists simply observed the phenomenon without formulating a hypothesis before observation, and made conclusions about the patterns based on the results of observations.

There are several styles of teaching at Oxford University: the teacher explains what the student does not understand; the teacher shows his/her vision of the subject to the student; the teacher shows the relationship between certain objects, encouraging the student to develop a new perspective in the broader context of the subject being studied; the teacher and the student exchange points of view and interpret the problem being studied in a new way.

According to a survey of 2,330 students at Oxford University (Trigwell & Ashwin, 2003), there are several approaches to teaching and the educational process in general. In particular, a deep approach, which is to encourage students to find the meaning of what is being studied and understand the basic ideas. This approach awakens students' interest in research and an anticipation of satisfaction in obtaining results. On the way to achieve results, students can satisfy their curiosity, apply their experience, compare and differentiate arguments, find patterns, identify basic principles, combine knowledge with existing ones, considering them part of the whole knowledge, theorize and summarize the results and make certain conclusions. This approach leads to better learning by students and higher scores.

But along with a deep approach, superficial one is also used in learning. In this approach, students' assignments are perceived as an external imposition, which they must solve with minimal effort. Most often, students resort ot maximum memorization without a deep understanding of the components and their relationships, and subsequent reproduction as accurately as possible, in order to obtain a higher score, rather than to understand the material. However, learning outcomes with this approach are not always rated high.

Research (Trigwell & Ashwin, 2003) has shown that 68% of Oxford University students believe that their professors adhere

to a deep approach to teaching. However, a quarter of students believe that learning is reduced to memorizing ready-made opinions and facts presented by teachers, which does not contribute to the development of interest in the material and its deep understanding.

Most of the students surveyed support the use of such an approach in teaching and learning, when the teacher makes students think, and then give arguments to defend their opinion. However, in order to be able to defend one's opinion, one must already have some knowledge, which can then be referred to.

According to students, most professors at Oxford University try to involve them in the process of learning.

In addition to introducing a scientific approach to the study of various subjects, Oxford University is creating special programs for the development and training of researchers. They include a variety of activities and resources, like workshops to support graduate students and doctoral students. Their purpose is to support young scientists in their research and personal development. These include: online courses in statistics, the program for the development of presentation skills, online courses for writing a thesis and report. There is also advanced training for teachers, in particular, Progressive Program of Teaching and Learning.

This approach helps Oxford University students do a lot of research during their studies that has an impact on culture, business, politics, the environment and the health care system. Even more scientific discoveries have been made by graduates and staff of the university. Of course, the University's research base occupies not the last place in research activities.

2) Stanford University (Stanford University Official Website, 2021)
Teaching at Stanford University involves the development of students' skills in careful reading and interpretation of scientific texts. The teacher must be able to guide students in reading comprehension. The teacher must teach students to critically evaluate arguments and evidence.

During classes, the teacher should involve students in debates and help them identify and apply ideas of classical theories to contemporary issues.

Curricula are designed so that they can provide students with all the knowledge necessary for research activities. For example, quantitative skills (such as statistical and computational) as well as knowledge of programming languages and the necessary information environments are important for the development of science.

When teaching students, teachers should guide them through such important aspects of scientific methods as creating experimental projects, performing data analysis, and explaining the difference between correlation and causation.
The scientific approach in teaching and learning in the University also involves students writing scientific papers that should demonstrate a high degree of clarity in argumentation, the development of criticism, argumentation and response to this criticism.

In teaching and learning using scientific approach techniques, interactive lectures and scientific discussions can be used to teach students argumentation. The scientific method should include the formulation of scientific problems and offering hypotheses, as well as the development of new or a choice of existing tools and methods for testing them.

The material that teachers provide to students for study should be current, so that the importance of a scientific approach can be demonstrated on the example of solving the problems of the 21st century.

The solution of scientific problems, which requires knowledge of several subjects also contributes to the development of abilities that future scientists need.

Stanford faculty provide an opportunity for their students to better understand the application of the scientific method in solving a wide range of real problems and in the practical acquisition of knowledge based on facts that require the attention of science. In the process of solving such scientific problems, students must learn to design an experiment under the teacher's guidance, which in turn should develop the observation and measurement skills, teach quantitative analysis and modelling. At the same time, students should not neglect statistics when drawing conclusions of their research.

Teachers should teach students to understand the place of their own research in global science, show the power of scientific knowledge and teach students to communicate this knowledge to others, present it correctly, distinguish false knowledge from true, learn to navigate key concepts.

The organizational skills of a scientist are also important in research, because he/she must both self-organize to solve a scientific problem and be able to organize others for the same purpose. Stanford University faculty pay considerable attention to developing leadership skills in students when working on projects and participating in interactive sessions. Students must learn to negotiate and be able to manage complex conversations, as well as show the importance of the ability to express their opinion in science.

Teachers have a task to teach students to solve large, complex problems analytically, while abstracting from secondary issues.

3) Harvard University (Harvard University Official Website, 2021)
Harvard University students have the opportunity to engage in the study of applied, social sciences, the humanities and technical sciences. At the same time, teachers focus students' attention on current issues and scientific issues that need to be addressed. They provide the necessary knowledge and skills for this purpose. For example, they deliver quantitative data substantiation courses for the correct processing of data, where students learn to operate with computational, mathematical and statistical techniques. They are explained where these methods can be applied in the real world of modern data.

Considerable attention in teaching and learning at Harvard University is paid to developing scientific speech in students. Seminars and meetings are created between students and teachers for this purpose. Writing a term paper or dissertation is an integral part of a scientific approach to teaching and learning. Harvard University is no exception.

4) California Institute of Technology (Caltech Official Website, 2021)
The core curriculum of the California Institute of Technology provides students with the development of collaboration and communication skills needed to take on academic challenges. This gives them confidence and develops resilience. A necessary condition for teaching and learning at the University of California is the challenge of intellectual interest in the formulated scientific problems, as well as its satisfaction. Teaching and learning is based on the need for effective cooperation between teachers and students, built on the laws of ethics, using different models of interaction and different means.

Graduates of the California Institute of Technology must have an understanding of basic science concepts. They must be able to use disciplinary thinking, analytical skills and various scientific methods in solving research problems and problems in various subjects.

The knowledge and skills acquired while studying at the University allow graduates to be able to conduct research and expand knowledge in areas beyond their specialization. The

graduates can soundly analyse cultural, political and economic events.

5) Massachusetts Institute of Technology (Massachusetts Institute of Technology (MIT) Official Website, 2021)
Massachusetts Institute of Technology builds its teaching practice on the principle that before formulating scientific problems students must first acquire the necessary knowledge to find solutions to these scientific problems. This is done both theoretically and in practice. And when students have some educational experience, they can perform more complex tasks.

Massachusetts Institute of Technology, on the way to training new researchers, considers its key tasks not only to provide students with scientific knowledge, develop technical literacy, but also to teach to distinguish between problems that require scientific solutions, and to search for these solutions.

According to the curriculum, students must prepare diplomas. Special seminars on writing diploma projects are provided to acquaint students with the peculiarities of research. The purpose of the diploma is to deepen the student's knowledge in a specific field that corresponds to the topic of the work.

Student work in laboratories, discussions at seminars, group projects, independent research teach students to use the principles and methods of analysis, design and experimentation, which is the basis of the scientific method. In addition, students have the opportunity to gain practical experience working on industrial projects of the university or projects of partner companies.

6) Cambridge University (Cambridge University Official Website, 2021)
The approach used by the University of Cambridge in teaching and learning helps students to develop a creative approach to solving scientific problems. To do this, the university provides the necessary knowledge, develops a deep understanding of the basics of problems and develops the necessary skills to solve them. Teachers teach students to analyse the content of the task, to apply knowledge not only to already known problems, but also to new ones. They provide the necessary knowledge and skills for students to conduct independent intellectual research. They teach students to feel the changes and show flexibility towards them, to influence the results, as well as to be well informed.

7) University of California, Berkeley (University of California, Berkeley, Official Website, 2021)
The main purpose of applying scientific technology in the learning process at the University of California is to help students become leaders who are able to turn innovation into impact. Learning should help students to move from what they have to what he may have. Thus, students' knowledge accumulates thanks to learning through own experience of the resolution of the set issues.

At the University of California, students have the opportunity to conduct research on a topic of interest to the student. The research is carried out under the teacher's guidance. In addition, students at the University are taught subjects that help implement scientific methods. In particular, subjects are related to information and its processing. They make students able to plan research, obtain information from data sets, using analytical methods, visualize data, perform statistical analysis. They learn to interpret the findings of their research so that they can change their minds. The courses offered to students teach them to independently formulate current scientific problems, use various data and methods to solve them, as well as to formulate the correct conclusions that will complement the existing knowledge.

8) Yale University (Yale University Official Website, 2021)
Yale University curricula are designed to show respect for student initiative, to build on student maturity. Studying at Yale University involves teacher mentoring. The university has

created a favourable learning environment for students to do compulsory research.

9) Princeton University (Princeton University Official Website, 2021)
Curricula are designed so that the knowledge that students gain in one subject is then used in the study of the next. In the process of learning, students analyse a number of complex issues in various academic subjects, thus acquiring skills in the use of quantitative and qualitative methods.

10) University of Chicago (University of Chicago Official Website, 2021)
University of Chicago provides students with the necessary knowledge of the basic sciences to prepare them for the development of new knowledge. At the same time, the University created a controlling, supporting and evaluating learning environment.

Besides, the University provides an opportunity to develop skills in doing research, which is to help partner organizations solve real problems. There is also a compulsory research that students must complete before graduating from the HEI, it is carried out under the teacher's guidance. The student chooses the topic.

The main approach to teaching and learning is continuous learning through research, refutation or confirmation of assumptions, intellectual debates. Scientific problems must be approached from the perspective of different subjects. Students are involved in considering a variety of views, academic experiences, minds, habits to enrich their knowledge and engage in activities.

Thus, 10 considered HEIs use scientific approach techniques in teaching and learning. Moreover, they do so at all stages: when teaching new material in lectures, when discussing current scientific problems in seminars, when performing laboratory research, when working on term papers or diplomas, when performing research commissioned by a partner organization of an educational institution.

This paper also investigated whether it is worth to use a scientific approach to teaching and learning in HEIs, because not all graduates become scientists. For this purpose, we considered how the approach to learning and teaching in the above HEIs affected the lives of their graduates on the example of famous graduates of Oxford and Harvard University. Famous Oxford University graduates include 58 international leaders, 120 Olympic medal winners, and 55 Nobel Prize winners. That is, a quarter of the famous graduates of Oxford University became scientists, and 75% of them fulfilled themselves in other fields.

It is clear that the education received at the university, where they often use scientific approach techniques in teaching and learning, did not prevent, for example, Clement Attlee, Tony Blair, David Cameron, Sir Edward Heath, Boris Johnson, Harold Macmillan, Theresa May, Margaret Thatcher and 20 other Oxford graduates became prime ministers of the United Kingdom. This did not also prevent Tony Abbott from becoming the Prime Minister of Australia, Grantley Adams — the Prime Minister of Barbados and the West Indies, Solomon Bandaranaike — the Prime Minister of Sri Lanka, Reese Ahmed — the actor, Tariq Ali — the writer, W.H. Auden — a poet. Scientific approach to studying at Oxford Baruch helped S. Bloomberg, John Eccles, Lord Florey, and 52 other graduates to become world-renowned scientists, inventors, and Nobel Prize winners.

The famous graduates of Harvard University include 45 Nobel laureates, more than 30 heads of state. The study showed that among 1,380 renowned graduates, the ratio of scientists to representatives of other professions is 2 to 3.

We also found out how the approach to teaching and learning in universities affects the population of the countries in which they are located, and the development of these countries.

According to (QS Higher education system strength rankings (HESS), 2018), which distributes countries according to the strongest higher education systems (using such criteria for evaluating higher education systems as system strength, affordability, performance and economic component), the top ten countries include: USA, UK, Australia, Germany, Canada, France, the Netherlands, China, South Korea and Japan. Ukraine took 44th place in this ranking.

If we analyse this ranking by universities, the top seven are: Massachusetts Institute of Technology, Stanford University, Harvard University, California Institute of Technology, Cambridge University, Oxford University, UCL.

To show the impact of education received with teaching methods offered by the universities described above, we analyse its impact on the lives of graduates by the following parameters: Global Innovation Index, Human Development Index, the number of patent applications per capita and GDP per capita (Global innovation index, 2019; Human development index, 2019; World Intellectual Property Organization. *Statistical country profiles,* 2019; International Monetary Fund. *World Economic Outlook Database,* 2020).

Let us expand the scope of the study and not be limited to only two countries with the 10 world best universities, but let us consider 18 countries randomly selected from 50 countries. (QS Higher education system strength rankings (HESS), 2018) Table 1 contains the data required for the study.

Table 1. Characteristics of countries according to 5 world rankings

Place in QS HIGHER EDUCATION SYSTEM STRENGTH RANKINGS [23]	Country	Total score in the QS HIGHER EDUCATION SYSTEM STRENGTH RANKINGS (21)	Population of the country (as of 2019), million. (18)	Human Development Index (2019) (17)	The Global Innovation Index (2019) on a 100-point scale (16)	GDP per capita (2019), international dollars (19)	The number of patent applications filed (18)
1.	USA	100	328.24	0.926	61.73	65,254	521,145
2.	United Kingdom	98.6	66.83	0.932	61.30	48,727	54,762
3.	Australia	93.8	25.38	0.944	50.34	52,726	12,568
4.	Germany	93.4	83.13	0.974	58.19	56,226	178,184
5.	Canada	90.4	37.59	0.929	53.88	51,190	24,469
6.	France	86.8	67.09	0.901	54.25	49,799	67,294
7.	Netherlands	84.9	17.33	0.944	61.44	59,693	35,359
8.	China	84.5	1,397.72	0.761	54.82	16,709	1,327,847
9.	South Korea	83.5	51.71	0.916	56.55	44,573	248,427
10.	Japan	82.1	126.26	0.919	54.68	43,194	452,130
14.	Sweden	74.8	10.29	0.945	63.65	55,265	27,721
20.	Finland	66.6	5.52	0.938	59.83	50,748	11,470
25.	Malaysia	58.6	31.95	0.810	42.68	28,991	2,122
30.	Norway	51.4	5.35	0.957	51.87	66,214	6,225
35.	Portugal	46.3	10.27	0.864	44.65	36,246	2,148
40.	Lebanon	31	6.86	0.744	28.54	15,134	0
44.	Ukraine	23.7	44.39	0.779	37.40	13,442	2,467
50.	Pakistan	14.7	216.57	0.557	25.36	5,204	411

Figure 1 demonstrates the dependences of the Human Development Index on the level of higher education in such countries as the USA, Great Britain, Australia, Germany, Canada, France, the Netherlands, China, North Korea, Japan, Sweden, Finland, Malaysia, Norway, Portugal, Lebanon, Ukraine and Pakistan.
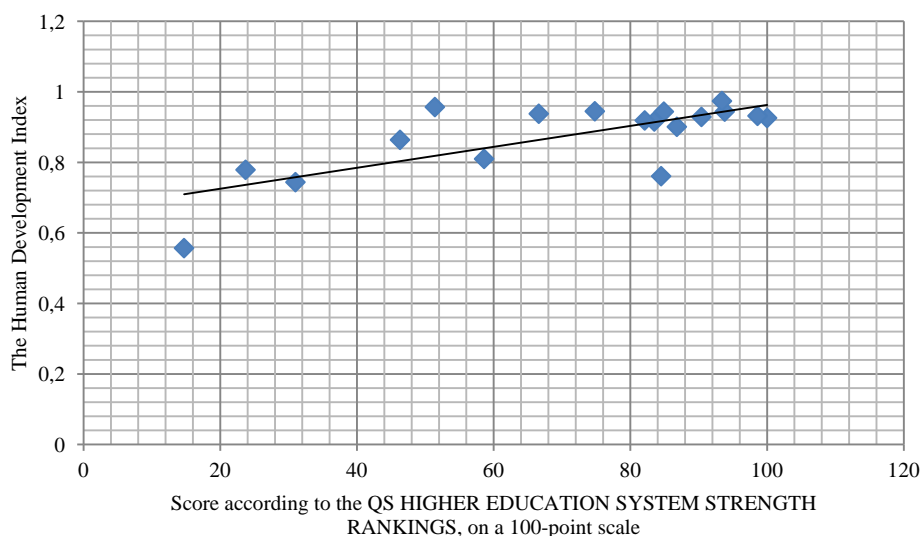

Figure 1. Dependences of the Human Development Index on the level of higher education according to the QS higher education system strength rankings (Human development index, 2019; QS Higher education system strength rankings (HESS), 2018)

Using the method of linear approximation, we obtained a function that describes the dependence of the Human Development Index on the level of quality of higher education in the country. It is $y=0.003 x + 0.66$. Figure 1 and the obtained function demonstrate that the higher the level of education in the country, the higher the Human Development Index.

We similarly obtained the dependence between the Global Innovation Index and the level of quality of higher education on the example of the studied 18 countries (Figure 2). The obtained dependence is: $y = 0.36 x + 26$.
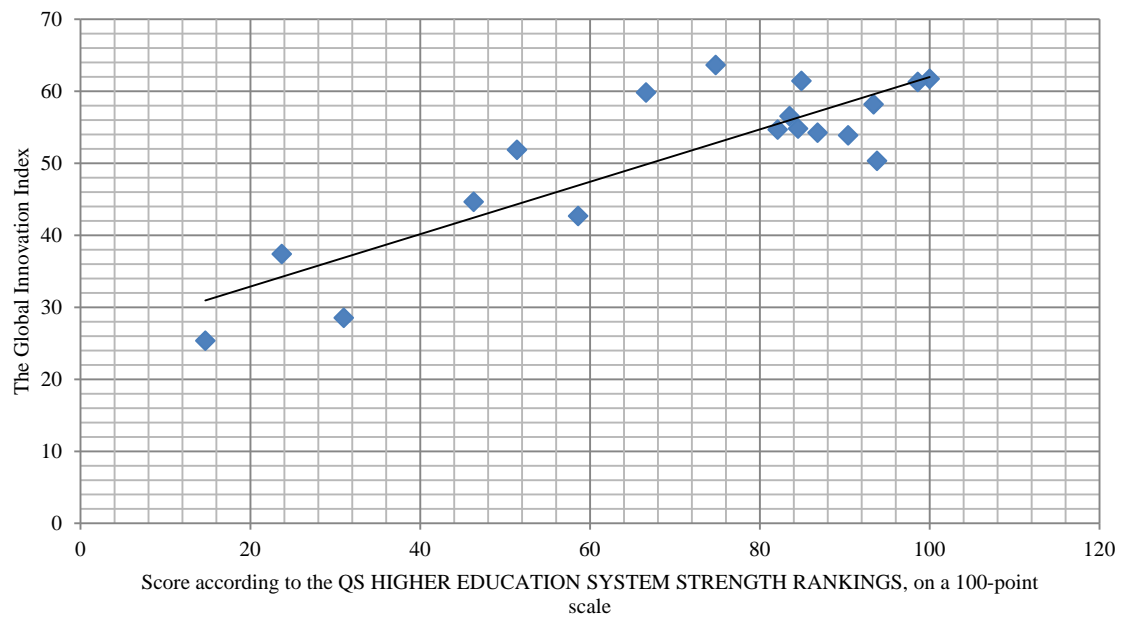

Figure 2. Dependence of the Global Innovation Index on the country's place in the QS higher education system strength rankings (Global innovation index, 2019; QS Higher education system strength rankings (HESS), 2018)

The level of higher education also affects the number of patent applications (Figure 3). This dependence can be described by the following mathematical function: $y = 0.003 x - 0.036$.
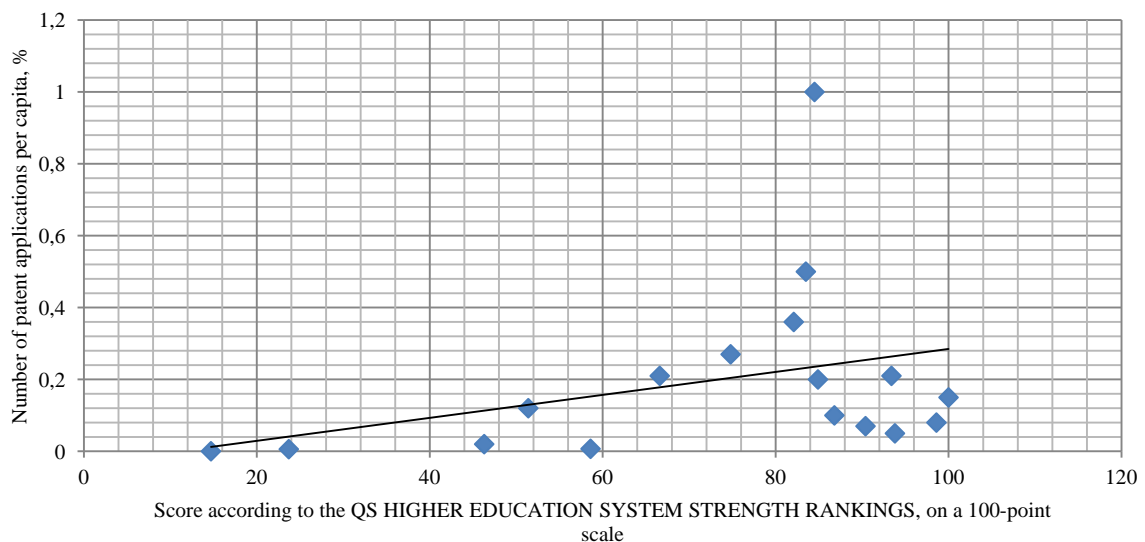

Figure 3. Dependence of the number of patent applications on the country's place in the QS higher education system strength rankings (World Intellectual Property Organization, 2019; QS Higher education system strength rankings (HESS), 2018)

However, the level of education has the greatest impact (among the studied parameters) on GDP (Figure 4). It is described by the following functional dependence: $y = 500 x + 7000$, where the angle factor is 500, being the largest of the considered ones (0.003 and 0.36).

Thus, the level of education has a positive impact on such characteristics of the population as the Human Development Index, the Global Innovation Index, the number of patent applications. However, the level of quality of higher education has the greatest impact on the country's economy, in particular on GDP per capita.
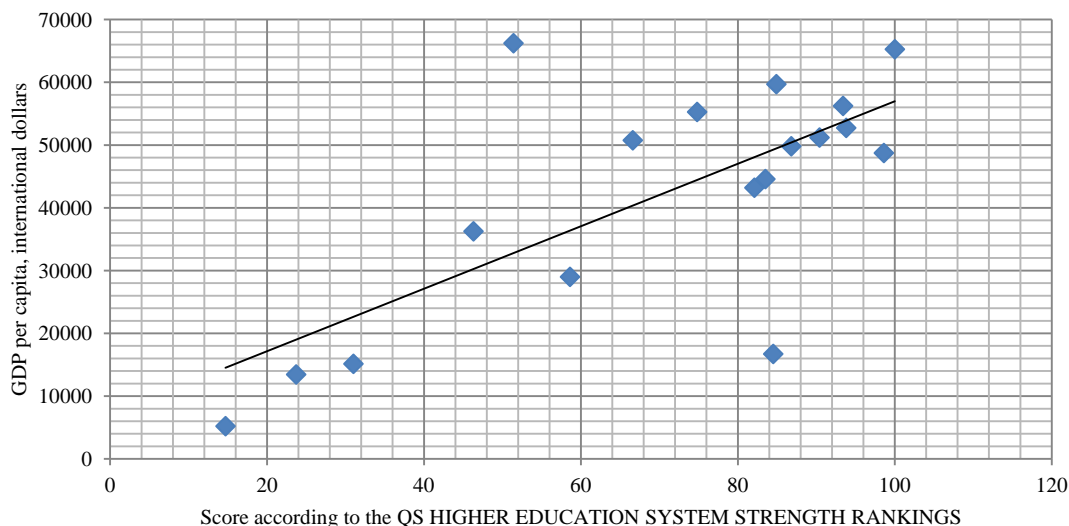
Figure 4. Dependence of the GDP per capita on the country's place in the QS higher education system strength rankings (19, 21)

4 Discussion

The scientific method appeared in education when schools began to study the results of scientific research. The scientific method was later replaced by laboratory one, that is science moved to the laboratory. But over time, the scientific method has become so popular that it has been used in everyday life. The problem that arose could be solved by a simple algorithm: gathering evidence and drawing conclusions. This in turn has led to the misconception that anyone can do science without the need to be a scientist. That forced teachers, most of whom were not scientists, to teach students how to do science.

So, what is the subject of study in educational institutions — science itself or the process of science — is an issue that has arisen before pedagogy in recent times. After all, only a small number of students, will connect their lives with science and become scientists after graduation. Will it not be a waste of time for other graduates to use scientific approaches in their studies.

(Susantini et al., 2018) believe that learning has a high degree of effectiveness when students learn new information using their own experience. Therefore, the teacher's task is to create a learning environment that would contribute to the student's need for research, and provide all the conditions for its successful independent realization. This will allow students to gain new knowledge on the basis of existing ones, and will allow applying new ideas to new situations. This is the scientific approach to teaching and learning — to learn science from the practice of scientific research: find the answer to the question posed to the student in the following stages: collect and analyse the necessary data, and formulate answers to questions based on data analysis.

(8) also emphasize the need for scientific education in HEIs and the importance of using a scientific approach that will enhance the scientific and cognitive activities of students, thereby cultivating demands on themselves in achieving results, and the need for constant updating of knowledge and skills.
But there are some opposing views (Pinheiro et al., 2019, Drummond & Fischhoff, 2017). In particular, there is a harm revealed from such an approach in the field of engineering, as engineers have turned into scientists from practitioners. Now, the level of qualification of an engineer depends on who was his teacher at the university — a research professor or practitioner (Klassen, 2018).

In addition, the scientific approach to teaching and learning in HEIs is often covered in the scientific literature only as one that can be implemented in additional classes, electives, clubs, conferences, competitions (Sahaydak et al., 2020) or when

preparing term papers or diploma research. (Zaim, 2017) believes that the scope of the scientific approach in teaching in HEIs can be expanded. The scientific approach, which originates from the development of science, can also be used in regular classes in HEIs. In order for students to acquire new knowledge and integrate it with previous knowledge, it is necessary to apply scientific methods of studying the phenomena, that is to turn the educational process into "doing science".

The analysis of the curricula of the world best HEIs showed the possibility of using the scientific approach techniques in teaching compulsory subjects. The teacher should build the educational process to encourage students to formulate a scientific problem and find its solution, under teacher's guidance, while refraining from imposing his/her own thoughts on the student. According to (Schmaltz et al., 2017), the student must develop scientific thinking as a result of the scientific approach, that is the ability to generate, verify and evaluate statements, data and theories.

6 Conclusions

The research conducted in this paper showed the need to optimize higher education and find new more effective approaches to teaching and learning in HEIs. Through the analysis of educational processes in the ten world best universities located in the United States and the United Kingdom, we found that they use scientific approach techniques in teaching and learning.

The study of information about outstanding university graduates with a high level of scientific approach to teaching and learning showed that not all outstanding graduates have become famous scientists, there are also representatives of other professions, including politicians, artists, writers, poets, actors, Olympic medal winners. This indicates a positive impact of a scientific approach to teaching and learning on the future of graduates of HEIs, regardless of their future field of expertise.

A comparison of world rankings of countries in terms of the level of higher education, Innovation Index, Human Development Index, GDP per capita, and the number of patent applications showed a positive impact of the quality of higher education on the development of the country as a whole and the population in particular (Global innovation index, 2019; Human development index, 2019; World Intellectual Property Organization. *Statistical country profiles,* 2019; International Monetary Fund. *World Economic Outlook Database,* 2020).

Thus, the results of this study emphasize the importance of using scientific approach in teaching and learning in HEIs, and the need to expand its scope. After all, the scientific approach can be used not only in the preparation of term papers or participating in clubs and scientific conferences, but also when teaching new material during lectures, discussing scientific problems during seminars, solving scientific problems during laboratory work following the instructions and algorithms not prepared by the teacher but and as an own properly planned scientific experiment.

The study poses new challenges for teachers and researchers in the field of higher education, which is to adapt the international experience of using the scientific approach to teaching and learning in HEIs to domestic higher education systems, in view of the available opportunities for its implementation.

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