

THE ADVANTAGES AND DISADVANTAGES OF DISTANCE TEACHING AND LEARNING FROM THE PERSPECTIVE OF SECONDARY SCHOOL PUPILS

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Abstract: As time goes on, the number of studies on evaluation of teaching and learning during teaching restrictions has been increasing. However, identifying the benefits and risks of distance education is important, as teaching activities may be restricted in the future or hybrid form of teaching can be used in the future. Therefore, we present results of a survey among 162 secondary school pupils conducted in March 2022, which indicates that the respondents would choose a hybrid form of education, even though they evaluate distance education rather negatively, see it as a reason for tutoring, and prefer classical form of teaching to distance education. The results are compared with the results of other studies. The influence of connectivism and the increasing number of pupils referred to as digital natives is also recognized.

Keywords: distance education, online teaching, teaching methods, teaching evaluation, quality of teaching, blended learning, connectivism.

1 Introduction

The situation that occurred in 2020 in connection with the spread of the COVID-19 disease affected the society in a wide range of activities. Today, with the passage of time, the assessment of the given situation may appear diversely. The measures taken in connection with this disease had a significant impact not only on our society, but in almost all areas of our lives.

In the field of education, classic in-school teaching has been limited, almost overnight. All actors in education were affected by these measures and had to look for ways to provide teaching under the given, rapidly changing conditions. For pupils in primary and secondary schools, this meant a move from the school environment to home conditions, thus the change in education from contact in-school teaching to teaching and learning conditions carried out through a wide range of tools enabling distance teaching and learning. It was not an easy situation for teachers as well. Teachers also had to find ways to ensure a sufficient level of teaching in these conditions of teaching restrictions (Rokos & Vančura, 2020; Brom et al., 2020; Švaříček et al., 2020; Adamec & Šimáně, 2021; Šalamounová, 2022).

In the period of the second half of the 2019/2020 school year, ways and possibilities were therefore sought almost immediately to ensure education could continue even under the mentioned conditions. For the following school year, 2020/2021, at least the summer vacation months were already available for preparation of educational process. Teachers could use to prepare distance teaching and learning, especially using digital technologies, and other means of distance education. The next school year ended up taking place in the conditions of limited in-school educational process. However, teachers could already use the experience gained from the previous months and holiday preparations (Pavlas et al. 2020; Pavlas et al., 2021).

Although it may currently appear that we are not in danger of further restrictions on educational process in the form of classic in-school teaching conditions, the experience of implementing teaching and learning under conditions of limited in-school educational process after March 2020 can provide valuable information for future application. The information about restricted in-school educational process could provide useful knowledge, not only in the case of future restrictions due to any reason, but also in connection with the rising trend of using digital technologies in educational process, changing the approach of teachers and pupils to the digital technologies and their use in a wide range of life situations including teaching and learning activities, and also applying the concepts of connectivism in the educational process (Svoboda et al., 2020).

Therefore, in our survey, we focused on examining the issue of evaluating experiences from the period of educational process restrictions at a selected secondary vocational school with an economic focus in Czech Republic through the pupil's perspective.

The main goal of our survey was therefore to obtain information about the view and assessment of the pupils at this chosen school on the educational process during the period of its restrictions, with the intention of obtaining an answer to the established research question: *How do the pupils at the selected secondary schools evaluate distance education in comparison to classical in-school education?*

The main research question can be elaborated to the following questions:

1. How do the pupils at the selected secondary school evaluate their own readiness for distance educational process, especially regarding their material background?
2. How do the pupils at the selected secondary school evaluate the educational process during the distance form of teaching in terms of the organization of the educational process and the chosen teaching methods?
3. Which benefits and failures do the pupils at the selected secondary school identified in connection with distance teaching and learning?
4. How do the pupils at the selected secondary school approach the possibility of distance education, or hybrid form of education, in the future?

These sub-research questions are subsequently used to organize the obtained information during the presentation of the obtained survey results and are further elaborated in more detail.

2 Previous research on the effects of teaching restrictions

Several research were already carried out in 2020 in connection with the limitation of teaching and learning due to the measures introduced to prevent the spread of the pandemic. In the following period, the issues of distance education in its various forms became an increasingly researched area, and researchers from different countries contributed their knowledge and collected data to clarify the impact on education in this context.

From the initial research carried out already within a few weeks after the restrictions on teaching were introduced, we can cite the findings of the PAQ agency, which mapped the economic situation and the effects on the education of pupils of different age categories and at different levels of the educational system. The survey covered pupils of primary and secondary schools, on a sample of approximately 500 respondents, by collecting data from the parents of these pupils (Prokop et al., 2020). This research pointed to the fact that parents had to take care of their children, who remained at home due to the pandemic measures, and to a large extent also to ensure their education. They devoted an average of 2.5 hours to activities connected with distance teaching and learning of their children. Parents without high school diplomas devoted themselves to their children's educational activities to an even greater extent, and at the same time, those parents expressed much less satisfaction with the school's activities carried out by teachers and other school representatives during this period.

Brom et al. (2020) also approached the issue through quantitative research. In this research, authors investigated the time-consuming nature of educating pupils of different ages and at different levels of the educational system, as well as broken down according to parents' educational attainment and families' socio-economic status. In the study conducted on a sample of 9000 respondents by Švaříček et al. (2020), researchers used the qualitative approach to the topic. Although the sample could not be considered representative, researchers point out to the already

mentioned tendencies and considerable time requirements of distance teaching and learning in that time.

The situation at primary and secondary schools has also been repeatedly mapped by the Czech School Inspectorate, which already in the second half of the school year 2019/2020 was investigating the situation at schools by telephone interviewing of 5,000 principals (Pavlas et al., 2020). The interviewing was aimed directly at managing the situation with the efforts to provide teaching activities by teachers in connection with teaching restrictions because of government measures. In the re-investigation of the effects of the teaching restrictions of the classical in-school form of teaching, information was already ascertained in connection with the pupils' situation from the point of view of the situation in the family, readiness for teaching and learning process, time requirement and burdens of this educational process and other aspects of distance teaching and learning (Pavlas et al., 2021).

Rokos and Vančura (2020) conducted a survey among teachers, pupils, and their parents at a selected school at the beginning of teaching restrictions. Their findings correspond with the above-mentioned findings regarding the time-consuming nature of distance teaching and learning or the need to involve parents in the educational process. Contrary to the findings of the Czech School Inspectorate, however, they do not identify the technical requirements for educational process as a problem, as the school has proceeded to help pupils in this area. However, the authors consider the methodological preparation of teachers to be the most important in case of the inevitable implementation of distance learning in the future.

A study by Šalamounová (2022) provides an interesting perspective on the issue of the organization of distance education. In his study, she deals with the issue of distance education from the point of view of the autonomy of teachers in the organization of teaching and the support of school management in the areas of technical and technological backup of distance learning. If the school management took responsibility for the technical, organizational, and conceptual backup of teaching, it enabled teachers to focus on the development of the digital competences of individual teachers and the didactic aspects of teaching specific subjects. In the case of individual teachers' autonomous approaches to distance education, there was a development of these competencies among a certain group of teachers, but not comprehensively within the entire school.

3 Methodology

Although, there are already several investigations of the effects of educational process restrictions, we nevertheless consider it appropriate to return to this issue and continue to monitor the situation, as the view and retrospective evaluation of direct participants changes over time. Therefore, a questionnaire survey was conducted on a sample of 162 respondents, who were pupils at a selected secondary school with an economic focus on the Business Academy. Data collection took place in March 2022 in the form of an electronically completed questionnaire combining closed and open questions. Closed-ended questions were evaluated with descriptive statistics, and open-ended questions were evaluated by grouping meaningfully similar responses.

It is therefore an available selection, where the limit is the possibility of generalizing the information obtained. Despite this limitation, we consider the obtained data and the possibility of their comparison with the already presented results of the conducted research to be an important part of the discussion about the potential and limits of the distance form of teaching in the future or possibilities of hybrid form of teaching and blended learning.

The survey was conducted with the participation of teachers who administered the questionnaires to the respondents, which resulted in a participation of 162 respondents. The survey was conducted among second-, third- and fourth-year pupils, as

information was sought regarding the course of teaching at the secondary school affected by the restrictions on teaching, which was not met for first-year pupils. The distribution between the individual pupils' groups according to given year of education was even (1st year 32%; 2nd year 36%; 3rd year 32%) and the representation of male (38) and female (124) corresponds to the interest and standard distribution for the field of education in which female dominates.

The collection of data and their processing were also part of the diploma thesis of the second author, while the first author was the supervisor of the thesis.

4 Results of a survey among pupils

Our survey focused on evaluation of the teaching and learning in the form of distance education from the perspective of the pupils themselves was therefore focused on areas that were related and were identified as important areas in connection with the distance form of education in the period of restrictions on the classical school form of education.

We have therefore included these areas:

1. pupils' readiness for teaching, especially about their material background,
2. the teaching process according to the chosen organizational forms and methods of teaching,
3. assessment of benefits and failures in connection with distance teaching and learning,
4. the possibility of maintaining distance education in the future.

The individual data obtained are therefore presented in this arrangement. The presentation of results provides an overview of absolute and relative frequency. Interrelation and deeper connections can also be identified with some data and can therefore be used for a more comprehensive clarification of the researched areas. In the contribution, however, we limit ourselves only to a verbal description of the outlined links.

4.1 Pupils' readiness for teaching and learning

Due to rapid introduction of distance education in the Czech Republic without enough time to react, the area of pupils' readiness for teaching and learning is very important. In addition, the situation was complicated by the fact that, at the same time as the restriction of classical schooling has been introduced, other measures that limited the movement and mutual meetings of people, such as the introduction of working from home where possible, the closure of shops and providers of various services were also introduced. This created a situation where not only pupils stayed in the households due to teaching restrictions in the form of distance education, but also parents often worked. This increased the demands on the equipment of the households with technologies enabling remote access and communication. The first area of the survey was to find out whether the pupils were sufficiently equipped for distance teaching and learning, or whether they did not incur additional extraordinary financial expenses in connection with distance education.

Tab. 1: Pupils' readiness for distance education and the extraordinary costs of distance education

	Pupils' readiness for distance education	The extraordinary costs of distance education
yes	26.5%	14.8%
more likely yes	54.3%	14.2%
more likely not	15.4%	25.3%
no	3.7%	45.7%

Source: Authors' own work according to collected data

As can be seen from the obtained data, at least in the case of our respondents, the vast majority (80.9%) were sufficiently materially prepared for distance education, both in terms of the

technology needed for the implementation of distance education, and in terms of home facilities and a stable internet connection. The situation in this case is perhaps improved by the fact that the respondents are pupils in secondary vocational education who are already normally equipped with technology sufficient for remote access and communication, can work with it in an adequate way and have suitable conditions created in their home environment. For this reason, too, they did not have to face, and in many cases (71.0%), according to the statements of the respondents, there was no increased financial burden to manage the situation (see Table 1). Respondents mostly used smartphones (42.9%), laptops (41.6%), personal computers (13.7%) and only exceptionally tablets (1.9%) for distance education.

4.2 Teaching process

In the survey, we also focused on questions aimed at clarifying the forms and methods of distance teaching and learning that were used in their case. Since teachers had to react quickly to the situation, especially in the period immediately following the limitation of the classical school form of teaching, in many cases they were not able to choose an adequate form of compensation for distance education. The following months of the summer holidays then provided space for improving the situation in this area in the next school year 2020/2021. However, there were still teachers and schools in which the situation did not significantly improve (Pavlas et al., 2021).

That's why we were interested in:

- how the teachers provided the new material in teaching process,
- whether interactive applications were also used for distance teaching and learning,
- how the distance form of teaching was demanding in terms of time for the pupils.

In the first step, we focused on the method of transmitting information from the teacher to the pupils, i.e., on the method of mediating the new subject matter by the teacher. The obtained results according to the pupils' answers are shown in Table 2. The obtained data show that the presentations were mostly prepared by the teacher (29.8% of the answers) and then shared through the used platform for the implementation of distance teaching and learning. In addition, this method allows easy sharing of information with pupils by sharing created materials. The second most frequently method used (26.8% of responses) was pure transfer through the selected platform. Videos (15.6%), scanned texts (14.3%) or own materials created by the teacher (12.9%) were used less often.

Tab. 2: Method of teaching new material by the teacher

	Absolute frequency	Relative frequency
presentation	157	29.8%
pure transmission	141	26.8%
video	82	15.6%
scanned texts	75	14.3%
own materials	68	12.9%
other method	3	0.6%
experiments	0	0.0%
total	526	100.0%

Source: Authors' own work according to collected data

Given that pure transmission was used quite often, it is quite surprising to find that teachers did not require pupils to turn on the webcam in 96.9% of the cases according to the respondents' answers (specifically, the respondents answered "no" in 37.7% of the cases and "more likely not" in 59.3% of cases). Even more surprising is that the teachers did not have a webcam running either (13.0% of the respondents answered "no" and 46.9% of the respondents answered "more likely not" when asked if the teacher had a webcam running during the lesson). On the other hand, the answer to the reasons for turning off the webcam, both, on the part of the pupils, but especially on the part of the teacher,

can be identified through the answers to the question of the frequency of problems in communication caused by a low-quality Internet connection or a failure of this connection. Respondents always or often faced the mentioned problem of data transfer quality in 29.1%, and at least occasionally the given problem occurred in 56.8% of other cases. Problems with data transfer quality were reported rarely by 14.1% of respondents and no (0.0%) respondent reported that data transfer quality issue ever occurred. Since image transmission significantly increases the requirements for a network connection, its non-use can be considered a legitimate way of maintaining at least an audio connection when securing distance education.

Even though pupils and teachers faced technical difficulties in the implementation of distance learning, respondents rated the communication with the teacher as understandable (in 8.6% of cases the answer was "yes" and in 75.9% of cases "more likely yes"). Pupils also confirmed sufficient space for asking questions during distance learning (34.0% of respondents answered "yes" and 58.6% "more likely yes" to the question of whether sufficient space for questions was provided by the teacher).

Another area that interested us about teaching process was the use of interactive applications during the distance education. Distance form of teaching and learning directly encourages the use of interactive applications, as pupils are already forced to use computers for learning purposes, and therefore there is room to use computers also to include interactive applications in teaching process itself. Although, according to the respondents' answers, teachers used interactive applications in teaching process (74.7% of the respondents said that the teachers used or rather used the applications), the frequency of their use was relatively small (70.2% of the respondents indicated the use only "sometimes" and 22.3% of the respondents indicated the use only in "rarely" cases). The dominant position among the interactive applications used has Kahoot! (74.8% of respondents chose the option), followed by Quizlet (11.9% of respondents) and Forms (4.2% of respondents).

Considering the distance form of teaching and the associated modified approach to the implementation of teaching during distance education, potential technical problems with the quality of data transmission and other factors, it would be possible to expect that the time requirements of distance education will increase. Table 3 provides an overview of this issue.

Tab. 3: Time requirements of distance education

	Did you spend more time learning in distance education than usual?	Did you have enough time for tasks?
yes	42.6%	8.0%
more likely yes	29.0%	42.0%
more likely not	24.1%	42.0%
no	4.3%	8.0%

Source: Authors' own work according to collected data

From the time requirements point of view, respondents stated in their answers that distance teaching and learning caused an increased time requirement for them. Specifically, they expressed that they had to devote more time to studying than usual (42.6% of respondents answered "yes" to the given question and 29.0% answered "more likely yes"). At the same time, half of the pupils stated that they had enough time for tasks related to the implemented distance teaching and learning.

4.3 Evaluation of the teaching process

As it follows from the results presented so far, distance education in the case of the respondents of our survey took place to a large extent without significant complications, even though the respondents experienced increased time requirements. Based on the data presented, it can therefore be concluded that distance education had certain positives, but also certain negatives, from

the point of view of the respondents. We therefore explicitly focused on this area as well.

That's why we were interested in:

- how pupils evaluate the quality of teaching in connection with distance education,
- what positives do the pupils perceive in connection with the implemented distance education,
- what negative aspects do pupils perceive in connection with distance learning.

The quality of teaching is also evaluated in classical in school teaching. There are many possible approaches for this evaluation, based on the evaluation of many criteria and measurable parameters. However, for the evaluation of the quality of distance education, we decided to apply the approach of subjective evaluation of the quality of distance education from the perspective of the pupils, i.e., the respondents in our survey.

Tab. 4: Time requirements of distance education

	Do you feel that you have learned more (or at least the same) information in distance education than in classical education?	Did you need tutoring during distance education?	Was the distance education the reason for tutoring?
yes	1.2%	27.8%	28.9%
more likely yes	8.0%	-	40.0%
I don't know	13.0%	-	11.1%
more likely not	38.9%	-	11.1%
no	38.9%	72.2%	8.9%

Source: Authors' own work according to collected data

As can be seen from the results shown in Table 4, the respondents express themselves rather negatively in relation to the quality of distance education. Specifically, 38.9% of respondents feel that they did not learn the same amount of material in distance education as in traditional school education (38.9% answered "no" to the first question). Also, the same percentage of respondents are more inclined towards this option (38.9% of respondents answered "more likely not"). Only a small part of the respondents (9.2%) finds distance education more beneficial in terms of learning the educational content.

Despite this negative assessment of the quality of distance education and the impact on educational outcomes, only 27.8% of respondents needed tutoring during distance education, which 68.9% of respondents identified as related to ongoing distance education. These results thus indicate a potential resignation to the identified worsened situation because of distance education, which would require increased learning activity in the form of tutoring. This resignation could be related to the broader conditions in which distance education took place, i.e., the impossibility of social contacts, the need to implement tutoring also in a distance form, which was the original reason for tutoring, as well as the workload of the pupils and the lack of time to implement the tutoring itself.

According to the results of the survey, during the period of distance education, the socialization element provided by the school environment was the most missing for the pupils. Specifically, 40.2% of respondents stated that they miss direct contact with classmates. The absence of this direct contact with classmates has a negative impact on the socialization aspect that school education brings, but it can also be seen as a potential cause of a worse assessment of the quality of distance education and pupils' non-use of tutoring. Similarly, 22.8% of respondents

indicated that they missed direct contact with the teacher the most. The absence of direct contact with the teacher can also negatively affect the evaluation of the quality of distance education and is also related to the possibility of implementing the necessary tutoring to achieve better learning outcomes.

Among the other areas mentioned, which the respondents lacked during the distance education, is motivation and concentration. This aspect was mentioned by 17.9% of respondents. Especially in the case of the organization of distance education daily respecting the classical timetable, the distance form of teaching and learning becomes very burdensome with a negative impact on concentration and possible additional motivation to learn. It is also related to the lack of school and classroom environment (mentioned by 8.9% of respondents), leading to the absence of social contacts and the positive influence of the school and classroom climate.

However, no matter how the respondents evaluated distance education so far, they were able to identify the positive aspects of this form of education. An overview of the positive aspects of distance teaching and learning is clearly shown in Table 5.

Tab. 5: Positive aspects of distance teaching and learning

	Absolute frequency	Relative frequency
more time for tasks / own interests	55	25.1%
waking up later / sleeping longer	38	17.4%
home environment	34	15.5%
not having to commute to school	30	13.7%
regular breakfast	12	5.5%
no positives	50	22.8%
total	219	100.0%

Source: Authors' own work according to collected data

Even though most respondents stated that they did not identify any positive aspects of distance education (22.8% of respondents' answers), aspects associated with the fact that distance education takes place in the comfort of their homes dominated among other respondents. The most mentioned positive aspect was more time for tasks and personal interests (25.1%), which will be related to another positive aspect, namely the fact that pupils do not have to commute to school (13.7%), which gives them more time. It was also marked as a positive aspect that they do not have to get up early, or they can sleep longer (17.4%), because of reducing the time needed to commute to school. The home environment (15.5%) was also perceived as positive aspect and, in combination with the above-mentioned aspects, contributes to better eating habits of pupils, as a regular breakfast (5.5%) was also marked as positive aspect.

Tab. 6: Negative aspects of distance teaching and learning

	Absolute frequency	Relative frequency
too many tasks	44	19.3%
problems in communication	38	16.7%
misunderstanding of the education content	36	15.8%
disproportionate length of lessons	27	11.8%
short time for knowledge verification through tests	25	11.0%
limited amount of movement	11	4.8%
no positives	47	20.6%
total	228	100%

Source: Authors' own work according to collected data

Of course, distance education also has its negatives from the point of view of our survey respondents. Table 6 provides an overview of the stated negative aspects. The stated aspects are related to some of the already stated views on distance education. As in the previous case, also with the negative aspects approximately one fifth of the respondents' answers refer to the fact that they do not find any negative aspects of distance education (20.6%). More significant negatives relate to the organization of teaching, such as too many tasks (19.3%), short

time for knowledge verification through tests (11.0%), and disproportionate length of lessons (11.8%). Identified negatives are also related to the educational content, specifically misunderstanding of the education content (15.8%), which could also be caused by problems in communication (16.7%) or other technical complications mentioned above. The very character of distance education, which uses communication technologies to mediate teaching and learning process, forces pupils to spend a lot of time at computers or other means of communication. This is the reason for the perceived negative aspects in the form of a limited amount of movement, or the need to sit for a long time at the computer (4.8%).

4.4 Possibility of distance learning in the future

Our survey aimed at distance education pointed to the possibilities of the use of distance teaching and learning in the future, even though it simultaneously pointed to the limits of its widespread and especially long-term introduction. Respondents identified both positive and negative aspects in relation to distance education. However, it can be assumed that some form of distance teaching and learning, or blended learning, will be reintroduced in the future, although it is not possible to identify the reasons that will lead to its introduction, and thus its specific form in the future. It could be the widespread introduction of distance learning due to the societal need to protect the health of the population, for economic reasons, or just a certain form of innovation in education in connection with the necessity of using new technologies in the economy and therefore also in education, or an effort to increase the effectiveness of the educational process. Therefore, we selected two options for respondents to assess. The first option was a choice between classic school teaching and distance education. The second option was a hybrid arrangement, where classical school teaching would be implemented to a predominant extent, i.e., four days a week, and distance education in the remaining time, i.e., one day a week. We were interested in which of the listed options would the respondents prefer in the future.

If the respondents had a choice between a classical form of school education and a distance form of education, the majority (54.9%) would choose classical in-school education. Only 21.0% of respondents would be in favor of full distance education, and for the other respondents (24.1%) the organization of education is irrelevant. It can therefore be assumed that the negatives and complications associated with distance learning are perceived by pupils as significant, and the advantages resulting from the realization of teaching at school, probably especially in the field of socialization, lead them to choose classic school teaching. It is interesting, however, that if the respondents were given the option of choosing between classical school teaching and a hybrid form of teaching, organized for example in the above-mentioned way, the majority (58.0%) would lean towards the hybrid form of teaching, 32.1% would then prefer the classical form of in-school teaching, and only 9.9% do not consider the organization of teaching into these two options to be relevant.

It can therefore be assumed that organizing teaching in a hybrid form would include the positive effects of both methods of organization of teaching and learning process. That is, the pupils would have sufficient space to maintain personal contacts with each other and with the teachers, the socialization aspect of the educational process would be fulfilled, but the hybrid form of teaching would also provide at least partially the opportunity to realize the benefits felt by the pupils, especially in areas of limiting the need to commute to school, gain more time for their extracurricular and leisure development. Thus, the hybrid form of teaching appears to be an optimal option for use in the future. Especially in areas of education that make greater use of new digital technologies and the element of connectivism in the educational process.

5 Discussion of survey results

Research in the area of impact of the pandemic on education has become an important part of research and publication activity

since 2020. In the period of a few years, the volume of published conclusions that examine the issue of the impact of the pandemic on education from many perspectives has increased significantly (Cretu et al., 2023).

In this sense, by presenting and interpreting the results of our survey, we are trying to contribute to a better understanding of the impact of teaching restrictions and distance education, from the point of view of pupils. We also stress the potential of using distance education in the future, either in its full scope or as a mixed hybrid form of education that would combine the advantages of distance education and traditional in-school education.

As our survey shows, pupils during the period of teaching restrictions, i.e., during forced distance learning, faced similar problems as those identified in other research (Rokos & Vančura, 2020; Švaříček et al., 2020; Brom et al., 2020), or even in the reports of the Czech School Inspection (Pavlas et al. 2020; Pavlas et al. 2021).

From the point of view of the future application of distance education, it seems important to emphasize the ability of teachers to properly prepare for such education. This preparation is related to the form in which the distance education would be introduced. In the case of widespread implementation, collaboration between school management and individual teachers seems to be significant. There have to be their mutual coordination and cooperation to ensure a comprehensive form of distance learning (Pavlas et al., 2021; Šalamounová, 2022). From the point of view of preparing individual teachers to handle such a transition, it can be assumed that individual teachers will be able to do it, as they have already had enough time to develop their digital competences (Barnová et al. 2022), as well as other necessary competences to ensure distance learning (Pavlas et al. 2021).

As our research shows, tutoring is an important area during distance education. Tutoring and providing consultations by the teacher has the potential to significantly reduce the burden of distance education. However, for an effective tutoring process, teachers need to be able to carry out this activity effectively. The use of consulting services during their studies as future teachers can develop this ability. In this respect, students in teaching educational programs can use the services of counseling centers established by universities (Adamec & Janderková, 2021). Future teachers, but not only them, can gain direct personal experience with tutoring and consulting students in a wide range of areas related to the educational process and transform that experience in their own practice.

6 Conclusion

The results of the survey indicate the readiness of pupils for distance learning in terms of household equipment and background (71.0% of responses). The low use of the webcam by pupils (3.1%) and teachers (39.5%) could be due to connection problems (85.8%). Teachers used mainly own presentations (29.8%) and pure transmission (26.8%) during the distance education. Teachers also used the applications (74.7%), although only occasionally (70.2%) or rarely (22.3%). There was room for questions (92.6%) and communication with the teacher was clear and understandable (84.6%). However, pupils had to spend more time to learn (71.6%), which may be due to lack of time for assigned tasks (50%) during the distance teaching and learning. Pupils evaluate the quality of teaching rather negatively (77.8%). Because of distance education some of the pupils need a tutoring (27.8%) and the most of those pupils (68.9%) identified distance teaching and learning as the reason for tutoring. Although pupils prefer the classic in-school form of teaching (54.9%), due to direct contact with classmates (40.2%) and the teacher (22.8%), they would choose the option of a hybrid form of teaching – blended learning (58.0%).

Our survey indicates that pupils would prefer the possibility of a hybrid form of teaching and learning. We assume that this

hybrid form of education would enable pupils to take advantage of the positive aspects of distance education and at the same time eliminate the perceived negative aspects. A hybrid form of teaching would allow pupils to partially reduce the time-consuming commute to school, create space for extracurricular and leisure activities, but at the same time preserve the positive aspects of contact with classmates and teachers, and adequate exchange of experiences in the school environment. However, for the effective implementation of the hybrid form of teaching and learning, it is important to develop appropriate competences of teachers, to create suitable organizational conditions in schools and to adapt the educational content within the curriculum in an adequate way. It would be possible to include appropriate elements of the curriculum in the distance part of hybrid education, i.e., educational content focused on the use of digital technologies, which are used both in the real world of economic practice and in education. This aspect is very important in connection with the development of vocational education in the future, since today we already see an increase in the use of digital technologies in a wide range of life and work activities. This trend is also related to the introduction of the element of connectivism in education and the increasing application of the blended learning approach in education.

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Primary Paper Section: A

Secondary Paper Section: AM