LITERARY TEXT AND ITS INTEGRATION INTO THE EDUCATIONAL CONTENT OF THE SUBJECTS OF ELEMENTARY REALIA

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Abstract: The content of the subjects focused on elementary realia in primary education is formed by science and social studies. These subjects include Elementary Science, Natural Science and Homeland Study. Their core, from the perspective of teaching, is a conceptual process in which it is crucial to teach a pupil to access professional texts while developing logical thinking with an emphasis on the application of knowledge to social reality. The taught topic in the form of professional text is preceded by a pupil's experience with understanding a literary text. The paper brings some results of the realized pedagogical research, which documents to what extent individual teacher strategy can be significant if it integrates or supports science content with literary texts and activating methods with an emphasis on reading comprehension and development of thinking.

Keywords: Subjects of elementary realia, individual conception of teaching, reading comprehension, explicit and implicit meaning of the text, development of thinking.

Introduction

The paper is divided into three chapters and their subchapters. The aim of the introductory chapter is to clarify the specifics of teaching the subjects of elementary realia and the need to support the content of these subjects with literary texts. In the second chapter, we will describe one of the possible individual concepts of a teacher by which we can approach a literary text with an emphasis on reading comprehension and stimulation of critical thinking. We assume here that access to a literary text in the early years of primary education can be a good basis or a starting point for the educational content of science or social studies. A part of this chapter is also a brief introduction of the selected topic, or more precisely the learning content on which the research was focused. It is a curriculum about the forest environment, which is linked to literary texts and control didactic tests aimed at the development of pupils' thinking. Subsequently, in the third chapter, we present the strategy of performed pedagogical research and its results. In the paper, we describe and explain why it is important to deal with a literary text and reading comprehension, and thus to support other teaching content of science subjects through activating methods.

1 Subjects with elementary realia and their specifics

Based on the educational standard (2015), the subjects with elementary realia at the primary level of education are Elementary Science (which is taught in Slovakia in the 1st and 2nd year of elementary school) and based on it, the subjects Natural Science and Homeland Study are taught in the 3rd year. The above-mentioned educational standard describes that "Elementary Science creates the knowledge, competence and attitude basis for the two related subjects - Natural Science and Homeland Study. In the homeland area, it focuses on acquiring knowledge about the real social space through familiarization with the functioning of services, self-government and geographical description of the country. In the field of science, it focuses on learning about organisms, inanimate environment and their mutual relations, it acquaints pupils with a real natural space by examining the functioning of selected natural phenomena". Doušková (2001, 2006) states that Elementary Science is rather an educationally oriented subject. We would like to supplement her statement with other subjects of elementary realia because their content and presentation by a teacher enable pupils to perceive the reality and the environment in which they move and live. This allows pupils to learn about their qualities and potentialities in the process of cognition, helps them to orient themselves in society, develop social relationships, attitudes and cultivate their speech and thinking. The educational content of subjects of elementary realia should be perceived as one complex, in which several scientific areas are consolidated, as Navrátilová (1986) or Černý (1959) point out. This concerns the teaching content (i.e. textbooks or curricula) that is part of our daily social context and corresponds to the current cultural and social changes. A teacher's active and creative approach to learning content should teach pupils to respond flexibly to these changes. The aforementioned subjects should teach pupils to intentionally systematize their knowledge in an integrative and motivating way. Tupý (1980) or Strnad (1970, In Čábalová, Podroužek, 2013), emphasize it in their publications. Teaching the subjects of elementary realia is primarily a conceptual process. It enables pupils to develop and consolidate their knowledge system, not only by acquiring new concepts, but rather their content, scope, relationships and context. The current Innovated state education program (2015) applies a strategy of focusing on key competencies that, according to Doušková (2006), are directed towards cognitive, personal (self-developing) and social competences. A pupil should be able to analyze information, assess its value and use it in a comprehensive, creative way to solve a problem in everyday life. According to Mihálik (1989), this process is built on three interdependent qualities:

- development of specific and operational thinking (based on the manipulation with objects, which develops comparison, evaluation, synthesis),
- formation of demonstrative and visual thinking (thought processes at the level of ideas from experience),
- development of conceptual thinking (acquiring concepts and transforming them into a pupil's speech).

Thus, the process of conceptualization is not based only on the processing of sensory data and their subsequent synthesis and generalization, but also on the detection of logical relationships. Mihálik (1989) recommends logic exercises as suitable tools for teachers. The exercises focus on discovering relationships, creative problem solving, and the area of observation and comparison. They were part of our research.

The focus of the curriculum of these subjects is formed by the synthesis of knowledge about nature and society, regardless of the various cultural, social and political conditions. We focused our research on the educational content of Natural Science in the 4th year, specifically on the curriculum about Forest and Forest Environment. It is a topic that has been spiralling since the first year. In the 4th year, Natural Science is formed by educational sub-areas: Natural Communities, Man, Inanimate Nature and Exploration of Natural Phenomena. The topic of Forest and Forest Environment is included in the educational sub-area of Natural Communities. Individual areas are further specified by the detailed performance standards to which a pupil is directed and by the content standards, which should direct the activity of a teacher to the processing of educational content. Such a concept of educational content should lead to modern science education, through which the natural science literacy of a pupil of younger school age, as defined in the OECD PISA study (2006), is developed. Nowadays, in science and social education, the emphasis is on the development of a pupil's thinking through activating methods, the core of which lies in exploratory methods. Žoldošová (2011), Doušková, Kružlicová (2012) recommend that pupils should learn through own observation, experimentation, making and verifying assumptions and asking questions. We also recommend including the role and situational games in natural science teaching. It appears that pupils' thinking, behavior and actions towards the closest environment can be significantly impacted by a teacher's thinking and action, and a teaching strategy.

2 Potential of a literary text for the learning content of subjects of elementary realia

Work with a literary text at the primary level of education in teaching the subjects of elementary realia has an important position. It is confirmed by the fact that in years 1921 – 1930 and 1953 – 1976 (Navrátilová, 1986), Elementary Science was a part of the subject Mother Tongue. Learning about nature and society was conveyed through reading texts in a reading book. Their content created a space for the creative activity of a teacher, which was supposed to result in the fulfillment of the goals of an integral part of the mother tongue – Elementary Science. As early as in the 17th century, J. A. Comenius considered it important in schools to link language teaching to the knowledge of a specific world, as it helps to understand the meaning of words, facilitate human communication, and above all, it creates an area of gradual and cyclical knowledge of the world. A literary text has educational potential, a creative teacher finds in it the impulses for developing the teaching content of the subjects of elementary realia. Since our research is focused on the topic of the forest, we chose forest-related literary texts. The Forest and Forest Environment is a part of all subjects of elementary realia in all years, not only in Elementary Science and Natural Science but also in Homeland Study. We see the added value in a literary text when pupils learn to express themselves differently than in everyday life. In this context, Podroužek (2003) attributes the following functions to a literary text: informative, transformative, consolidative, self-educational and developmental-educational. In order for a literary text to be functionally used in the teaching process, it is necessary to respect the criteria for its selection. For the purposes of teaching elementary realia, Podroužek (2003) states the following criteria: comprehensibility, educational and inspiring content, and interconnection of information with life.

Effective work with a literary text as a mean of teaching pupils about the forest requires not only a suitable choice of text but also functionally selected tasks and questions that stimulate the pupils' thought activity. In our research, we included the questions to explicit and implicit levels. Similarly, the literary text and topic were supported by activating methods, namely role-playing games, which we will further discuss in our paper. Such an approach also depends on the thinking and individual strategy of a teacher. We will just remind that in accordance with Čapek (2015), work with a literary text aims to develop the pupil's ability to read with comprehension, develop their communication skills and analytical evaluation of the text.

2.1 Approach to a literary text with an emphasis on comprehension

Understanding the text is a prerequisite for reading literacy. Every year the measurements of literacy PIRLS *(Progress in International Reading Literacy Study)* are made for pupils of the 4th grade of primary school. The measurements aim to monitor *the level of reading literacy* with an emphasis on understanding the text. The evaluation takes into account, or assesses, four levels to what extent pupils can work with the text:

1. *identification* - searching for information in the text,
2. *drawing conclusions* – deducing from part of the text,
3. *interpretation* - integration of context, linking information,
4. *evaluation* – assessment, critical evaluation and analysis.

The first two levels focus on the explicit level of thinking and the second two on the implicit one. Of course, if we want to develop all levels in pupils, we have to ask them questions in the classroom. Zápotočná, Petrová (2015) also point out that, in terms of cognitive processes, the attention should shift away from lower cognitive functions - perception, remembering, towards higher levels of cognitive text processing, through imagination and fantasy towards thinking, consideration and reasoning. In developing the understanding of the text, this should shift from within-text understanding to beyond-text understanding.

The PIRLS International Reading Literacy Study defines reading literacy as "the ability to understand and use written language forms that are required by society or of value to an individual". We see that reading literacy is a phenomenon and at the same time a necessary part of the social communication of each individual. However, the results of the evaluation studies show that not enough attention is paid to this fact in schools. The implicit thinking is a problem for pupils. We agree with Gavora and Zápotočná (2003) who emphasize that a teacher should choose an individual teaching concept, the core of which is a multidimensional approach to promoting reading literacy. In other words, it should be a synthesis of the knowledge of several scientific disciplines in order to present a more comprehensive model of literacy. We are convinced and our pedagogical experience shows that the teaching of subjects of elementary realia must be conceived by integrating the educational areas such as *Language and communication, Man and nature, Man and society* complemented by the area *Arts and culture.*

2.2 The importance of activating methods in working with a literary text for social skills

The world of literary fiction is close to the thinking of preschool children and younger schoolchildren. According to Vágnerová (2000), the cause can be found in a children's theme or symbolic game that is built on the same principles. It makes it easier for us to cope with reality. That is why it is necessary to search for the texts that correspond to the possible past or future social experiences of children.

In order to understand learning texts about nature or society that are more informative and operate with facts, it is important that a pupil is able to approach a literary text first. As foreign studies show (Smolkin, Donovan, 2001), children's interest in informative texts has been surprisingly increasing in recent years. It is important to create the literary consciousness of a child, then a pupil, in order to gain an interest in reading, to make them aware that only by reading they can gain new information. Later, by comparison, pupils discover that the language of these texts is different, leading them to compare the information. If teachers correctly and functionally approach a literary or learning text, if they ask and articulate questions at the implicit level, it is a good prerequisite for stimulating critical thinking.

Grecmanová and Urbanovská (2007) explains that it is "the ability to assess new information, to examine it carefully and critically from multiple perspectives, to make judgments about its credibility and value, to assess the importance of new ideas and information for own needs". Hartl (2004) defines it as the ability to assess information and to examine it carefully and critically from multiple perspectives, and to make judgments about its value and credibility. It follows that a critically minded individual makes their own judgments based on how they understood the text, the idea, and compares these conclusions with their own thoughts and experiences of the phenomenon. For this reason, we recommend using roleplay techniques when working with texts. As mentioned above, the basic method of the pedagogical-didactic approach is creative drama, alongside the play in the situation and interpretation. When choosing roleplays and situations in order to support understanding of new concepts and contexts in learning or professional texts, we start from the literary theme, because if we bring the situation out of the real environment, it is uncertain whether all pupils have been confronted with it. But if we support the curriculum with roleplay and play in a situation based on a literary motive, all pupils have the same stimulus and can interpret and justify their reasoning, decision-making and action. We have also implemented this strategy in our research.

In an individual concept, by which a teacher proceeds through roleplaying games and integrates science education with a literary text, we see significant intersections with the development of critical thinking. Klooster's (2000) definition of critical thinking is the evidence. The author defines it in five points - it is independent thinking (presenting own opinion), the

starting point is to get information (necessary for work and argumentation with facts), it starts with a question and a problem to be solved (learning how to solve a problem), reasonable arguments (there are several solutions, but it is necessary to prove the logic of own solution), thinking in society (we read, discuss, communicate). We consider the fourth point to be a very important one, where the argumentation of own opinion is fundamental. We consider it essential because, when reading a literary text, a pupil is able to construct arguments based on own experience through roleplay and thus formulates own opinion. Here we also find a match with the method of interpretation, which is part of the pedagogical-didactic approach of creative drama. This method is also important for the implicit level when reading texts (Kollárová, 2018a), also for making own judgments with particular sentence constructions, for presenting opinions and for gaining confidence in communication (Kollárová, 2018b). These conclusions are also supported by the results of our research VEGA 1/0098/17 Individual Approach and Teaching Strategy in a Context of Teacher's Professional Development.

The foreign studies by Connerly, Tous, Tahriri and Haghighi (2015, In Kosturková, 2016) show that critical thinking skills can be learned. Among other things, the authors found that the discussion has a statistically significant effect on reading literacy. This was also an impulse for our research. Cosgrove's (2011) research has shown that pupils are more likely to use the intellectual experience that is primarily required and practiced by teachers. Similarly, the importance of teaching methods in the teaching process has been confirmed. This is one of the reasons why we would like to appeal to the systematic integration of activating methods into the teaching process, especially to topics relevant to pupils' social skills. One of these topics is Forest and Forest Environment, because it is part of the daily reality of a pupil, and it is linked to thinking about the creation and protection of the closest environment in which a pupil lives.

3 Educational research on increasing pupils' knowledge of the forest and forest environment, supported by activating methods and a literary text

The educational standard for Natural Science is conceived to create opportunities for those cognitive activities of pupils that operate with terms such as searching, exploring, discovering, because they are the foundation of knowledge and understanding. In this sense, pupils should not be only passive actors in the classroom, who should only remember and reproduce the subject matter. In the theoretical background, we explained the merits of a literary text to support a learning text. Several authors have emphasized the need to develop an implicit level of thinking among pupils, not only for reading comprehension, but also for using language in a social context. Here we can see intersections in reading literary texts and reading learning texts. As stated above in accordance with Vágnerová (2000), a pupil must first learn to understand a literary text. That is why we emphasized the need to apply activating methods when working with a text, which can help a pupil to clarify some context in the contextual or semantic level of the text so that they can use it in explanation or argumentation.

3.1 Research problem and research objective

The key problem in our pedagogical research was *the justification of supporting literary texts in conjunction with activating role plays in the subject matter of Natural Science*. Based on the research problem, we set the research goal: *To find out to what extent an active approach to a literary text is involved in developing a pupil's independent logical thinking*.
The subject of our research was the knowledge of 4th grade pupils about the Forest and Forest Environment. Specifically, we were rather concerned with the ability of respondents to think at the implicit level. As we have already mentioned in the theory, the topic of Forest is regularly encountered by pupils in the subject matter of Elementary Science, Natural Science as well as Homeland Study, while the subject matter spirally deepens and expands at the same time. Based on the educational standards, pupils in the 3rd year should be able to *assess the importance of trees (forest, wood) for humans and have experience of observing tree life*. In the 4th year, within the educational sub-area *Natural Communities*, we focused on the standards to which our didactic tests (and literary texts) were directed – *to describe the forest as a community of plants and animals that are interdependent, explain the life of animals in the forest, describe the way of life of typical forest community representatives, consider the relationships between plants, animals and the environment.* All respondents completed the topic of the forest. We chose the 4th grade pupils for research because they are able to work with the written language code (written language, a language in written form) more accurately. The main objective also implies partial objectives:

- *find out from the written products what the differences in their thinking about the forest are;*
- *identify, analyze and explain possible differences in the perception of pupils and their external interpretation of a literary text depending on the approach of teaching methods;*
- *find out which level of reading comprehension can be influenced by systematic activation methods.*

3.2 Research question and hypotheses

Our research had a quantitative and qualitative methodology. The research question for the qualitative part was: *What are the basic differences in the thinking of pupils whose teachers use activating methods in their conception?* The answer to this question will be sought in the statements or written products of 54 participants.
For the quantitative part of our research, we have built hypotheses, based on the statements we have made in the theoretical background to the research.

H1 If we use activating methods when working with a literary text, pupils will show greater content richness in verbal expression with an emphasis on the implicit level of a literary text.

H2 If we apply the literary text support in science education, pupils will have a greater ability to operate with concepts.

The first hypothesis is related to reading comprehension, to its implicit level, and the second one is focused on the pupil's knowledge and logical thinking in relation to the subject matter about the forest.

3.3 Research file

Based on the research findings, which refer to an important factor - the individual concept of teacher education, we decided to carry out the research in which we chose 4 classes of the 4th grade of elementary school. It was a deliberate selection of subjects of quasi-experiment. In two classes (A, B), teachers do not use, or occasionally use, activating methods when working with literary texts. In the other two classes (C, D), teachers actively use roleplays to work with literary texts. We have included classes, or more precisely 14 respondents from each class who achieved the same study results from the subjects *Slovak language and literature, Natural Science and Homeland Study*. When selecting a research sample of teachers, we had to follow the individual teaching strategy of each teacher. None of the teachers has completed their first attestation.

- the teacher of class A - rather does not use activating methods in their teaching practice;
- the teacher of class B - sometimes tries to apply activating methods;
- the teacher of class C - applies activating methods daily in their practice;
- the teacher of class D - applies activating methods on a daily basis (and was the teacher of class C last year).

The research sample consisted of 56 respondents. Despite the same classification, it was shown that the selection of the research sample was complicated by the initial testing. This was the first signal to assume that activating methods, in conjunction with a literary text, will play a role in education aimed at developing the implicit level of thinking.

3.4 Methods and research tools

For the purposes of application research and in order to obtain research data, we used natural, or more precisely the field quasi-experiment. The independent variable was the strategy of supporting a professional text (learning text) by a literary text and the dependent variable was the effect of a literary text on the understanding of the science content, with an emphasis on the implicit level of thinking. We used didactic tests of our own construction to measure the level of thinking and expression. However, we can speak more about the projective method, because these were educational written products of the respondents, which were the result of open items. We used the Rating method to evaluate them, while we expressed the qualitative data numerically. At the same time, for the qualitative part of the research, we used open coding for evaluation. The research tools were:

- *initial didactic tests* focused on logical thinking and knowledge about the forest (4 open items);
- *literary texts* from the Reading book for the 4th grade with the topic of Forest;
- *a set of activities* or activating methods for work with a literary text;
- *didactic tests* focused on measuring reading comprehension in a literary text (8 open and semi-open items);
- *didactic tests* focused on logical thinking and knowledge about the forest (7 open items).

The activities were designed to individual levels of understanding of the text, which should also stimulate pupils' critical thinking. As we mentioned in the theoretical part, these were roleplay techniques that are part of creative drama.

3.5 Organization of research

We described the selection criteria for the research sample, which is related to the initial testing of respondents. The initial testing has already shown that if we do not integrate a literary text in conjunction with activating methods into the teaching of science subjects, we do not support the implicit level of pupils' thinking. However, we continued with the planned research methodology and did not exclude Group A from the research. We asked 4 questions in the test. The questions were focused on the topic of the Forest:

1. *What does not belong to the forest (choose from words);*
2. *What injury can we suffer in the forest;*
3. *Why are trees important to us;*
4. *Write words related to the word forest.*

The evaluation was scaled, with 0 points if the respondent did not answer, 1 point was assigned if they responded but the answer was illogical, 2 points when the answer was partially correct but incomplete, and 3 points were assigned if the respondent answered correctly and logically, or more precisely, with an implicit meaning.

Table 1 Initial testing – pupil's knowledge about the forest

Question	1.	2.	3.	4.	%
A	27	26	20	27	59.52
B	35	29	29	39	78.57
C	36	31	30	32	76.78
D	34	41	32	26	79.17

It follows from the above that Group A is different than the remaining group in the research file. It is the class in which the teacher does not use activating methods in teaching or working with literary texts. Other groups can be considered comparable. After the initial testing, we proceeded as follows:

- Group A – we supported the subject matter and learning texts with a literary text without activating methods (the intervention consisted of two literary texts with an emphasis on understanding);
- Group B – we supported the subject matter and learning texts with activating methods and a literary text (the intervention consisted of activating methods – roleplays and two literary texts with an emphasis on understanding);
- Group C – we supported the subject matter and learning texts with a literary text without activating methods; (the intervention consisted of two literary texts with an emphasis on understanding);
- Group D – we supported the subject matter and learning texts with activating methods and a literary text (the intervention consisted of activating methods – roleplays and two literary texts with an emphasis on understanding).

After completing the natural science topic of the forest within four lessons, all groups were supported by a literary text and subsequently they were given a didactic test from the natural science subject matter focused on the forest. We obtained written products of respondents in the form of sentence constructions or phrases, which we evaluated both quantitatively and qualitatively.

3.6 Research results and their interpretation

As we said, we were interested in the results obtained by respondents in evaluating reading comprehension. We focused on both explicit and implicit levels. Table 2 shows the results documenting the achievement percentages in the testing of the literary text understanding. The first and second columns (a, b) present the results of the explicit level (look up information in the text and draw conclusions from a part of the text) and the third and fourth columns (c, d) of the implicit level (interpret the text idea and evaluate the text with emphasis on the social application). The following table shows the results of both literary texts:

Table 2 Mastering levels of reading with understanding

Levels	a	b	c	d	%
A	48.81	15.48	35.12	34.81	33.56
B	65.48	52.98	67.86	55.95	60.57
C	74.36	74.36	83.33	76.93	77.25
D	77.09	82.96	92.74	80.51	83.33

It has been shown, that classification may not be decisive for expressing pupils' logical thinking, but it also appears that professional knowledge does not have to reflect thinking when approaching a literary text. It should be noted, however, that respondents who are not taught to use activating methods (A, B) in teaching are significantly reflected in reading comprehension. We see that in Group A, the first level of comprehension, which is finding information from the text, is already problematic, reaching 48.81%. The second level, related to the explicit meaning, is surprising. The respondents did not know or understand that "in two Fridays" means two weeks, or they wrote the exact wording according to the text, so we do not know if they understood, but in this case, we also gave them 2 points. In other groups, the respondents had no problem with this item. What we can see in common with the other three groups of respondents is that they have no problem interpreting the text with own sentence constructions (Level c). Rather, they have a great deal of trouble evaluating the text and have an overview of the text (Level d). This fact is not surprising. However, we see that the respondents who underwent the experimental intervention with both literary text and activating methods did not get above 70%, as compared to groups C and D who have practiced this teaching strategy. Although Group B, with the support of experimental interventions, does not perform as well as the respondents who regularly work with activating methods;

it is positive that this area dominates. Even between the first and second texts at this level of understanding, there is a significant difference from 64.29% to 71.43%. We would like to highlight Groups C and D. They also achieved the highest values at the level of interpretation that relates to the meaning of the entire text. This may be the result of a systematic approach from previous years, supported by the current individual concept of teaching by the current teacher because in this group we did not use the activating methods to the presented literary text. In Group D, the results were close to Group C. This can be attributed to the fact that the present teacher works with the respondents in a similar way to Group C. However, we cannot see a high score in all areas compared to the previous groups.
We have also prepared didactic tests for the respondents on the above-mentioned topics focused on the identification of the forest knowledge system related to the following levels:

1. *logical implication* - uncovering relationships between concepts (causal, multipurpose, excluding concepts, revealing common functional relationships between concepts, explanatory relationships);
2. *detecting and solving problems* – forecasting (what could happen), rationale, explanation;
3. *comparison variations* – comparison of characteristics, analytical comparison (to describe based on the perception), comparison of the work of people, specifically foresters.

The following table presents the test results:

Table 3 Knowledge tests from the forest subject matter

Level	1.	2.	3.	%
A	48.02	46.83	34.53	43.13
B	69.05	69.84	50.00	62.96
C	74.36	83.98	82.05	80.13
D	83.02	85.65	83.66	84.11

In the table, we can see that groups A and B have the lowest values. In these groups, the activating methods in cooperation with a literary text are only partially applied or not applied. In both groups, the respondents had the biggest problems with the level related to comparison, i.e. the application level. On the contrary, the groups, in which the activating methods and work with literary texts are regularly applied in integration with natural or social topics, do not have a problem with the application level, or justification and explanation, but rather the level of uncovering relationships. However, we are talking about slight percentage differences. From the above, it can be seen that the activating methods and the systematic approach to a literary text with an emphasis on its understanding significantly contribute to the development of logical thinking of pupils of younger school age. Even though Group D works with the teacher for a short period of time (September - December), we can see a significant shift in expression. In Group C, in which we did not use the activating methods in our experimental intervention, the respondents also achieved a high success rate. The consequence can be explained by the previous systematic approach of the teacher from Group D and by a follow-up approach that is continuous in the teaching practices. Even when the percentage results are transferred to a possible classification, the success of these respondents is shown. This is also evidenced by the satiety of their written statements. In terms of the scope of the paper, we present only a few.

In the qualitative evaluation of the statements we also took into account the richness of the statements. In groups (C, D), the respondents expressed themselves correctly on the contextual and also the meaning level, mostly by phrases or sentences. In groups (A, B) it was mostly one-word answers. As an example, we will give answers to the question for the explicit level of the literary text - causal relationships. *What caused the rabbit to break his paws?*

Group A – he jumped, fell into a bush, calls loudly from the ground, because he was in the forest;
Group B – because he fell, jumped badly, jumped a lot, rushed, I don't know;
Group C – he jumped and fell, tripped and fell, he was counting the clouds and tripped, he was looking around and fell;
Group D – he didn't look under his feet, he was looking around, he was looking at the clouds, not at the road, he was distracted.

The answers document how respondents think and we can really compare the logic of their statements. In groups A and B, we can see the description of the activity, not the cause. From the implicit level, here are some examples of what title they would give the text. The text was called *Wounded rabbit.*

Group A– Nice rabbit, Beautiful rabbit, Rabbit broke his paws, Help the rabbit;
Group B – Broken paws, Animals in the forest, Help the rabbit, Painful legs, Fracture;
Group C - Help, The rabbit, hedgehog and magpie, Restless bunny, Poor bunny, Desperate animals;
Group D – Broken rabbit, Two broken legs, Friendship, Rabbit and his injury, Forest injury.

Here we can see a shift in the thinking of the respondents, which may be the cause of the individual conception of the teacher. This is also supported by the answers of the respondents, that relate to the knowledge of the forest, namely the level of *detection and problem solving – forecasting – What injury can we suffer in the forest?* The most illogical responses were in groups A and B. They proposed the answers of the following type: *When there is not order. When I speak loudly, a bear comes. Anytime. I do not know. When I trip over when I do not look under my feet.* We dare to say that these answers are the result of a misunderstanding of the question that was directed to the consequence, not the cause. The answers of groups C and D, their ability to work with the implicit level of thinking is confirmed, as they have shown when working with the literary texts. Their responses were in sentences and related to the consequence, but they also justified it: *I can break a finger when I fall down or trip over. I can fall and have the brain concussion. In the evening, we can trip over and sprain the ankle. We can impact the knee when a bear attacks us. I can slip on wet leaves and disjoint the leg.*

We will remark that there were also illogical responses in these groups, when they mentioned a disease and not an injury: *If we do not get dressed, we get flu or eye inflammation. We can get poisoned with mushrooms.*

The respondents expressed their answer related to a disease, not an injury, but expressed with a whole sentence and mainly expressed the consequences related to the forest environment.
We will also state the answer of the respondents to another implication – *Which words are related to the word hedgehog?*

Group A – hedgehog, animal, fruit, mammal (the answers repeated, they did not state any other answers);
Group B – needles, mammal, needle, apple, pear, orange, prickly, belly, clew, I do not know;
Group C – prickles, hedgehog, animal, prickly fur, pins, prick, forest, nature, meadow;
Group D – needle, brown prickles, spines, animal, forest, meadow, coniferous tree, autumn.

In the first two groups, we can see a fact that the respondents in their statements rely rather on information from advertising, where the hedgehog bears a lot of fruit. In the two other groups, the answers of the respondents are already based on the knowledge they have about a hedgehog. As it turns out that a literary text and approach to it can be a good support for a learning text and the development of logical thinking, in the following cases we will mention statements to compare groups A, B with C, D. We see the justification in the answers for the question *What is a forest community.* Here we pick from the answers of groups A and B: *foresters working together, a forest group, when there is a company in the forest, who loves the forest, people who care for the forest*. The answers of groups C

and D were: *animals and plants in the forest, it is how we refer to the forest, forest and animals, part of trees, forest element, everything is in the forest together.*

From the results we can conclude that the used interventions can lead not only to a richer expression but what we consider as meaningful, the respondents can deepen the context. In groups A and B, there were predominantly one- to two-word answers or sentences, which were based on children's social experiences, i.e. stable communication patterns that they may have from the home environment. These were often illogical answers. We can say that the participants of Group A tend not to express themselves with a whole sentence. At the end of this section, we would like to state that by the activating approach to a literary text we can have a significant influence on developing the implicit level of thinking of pupils. We can state that both hypotheses were confirmed. However, this process must be systematic; it is not enough to apply it rarely. This is evidenced by the results of Group B. This research has shown how important it is to be able to ask questions and specifically ask questions in the teaching process and be able to use diverse answers for further educational content and discussions. We will emphasize that such teaching is only possible in the environment of trust and encouragement. However, this experience would first and foremost be necessary for students - future teachers in undergraduate training to experience and realize the implications of this integrative-communication approach.

We see a positive finding that the consequences of an individual teacher strategy are long-term (Group C). It is equally positive that even in a short period of time (4 months), the systematic work of this approach will produce results (Group D). The results are a challenge for further education of teachers and the improvement of their undergraduate training with an emphasis on the subject integration and the activating and communicative approach to education.

3.5 Discussion

In accordance with the theory, it has been shown that questions that point to the implicit level when working with texts do not have the same answers. This is the consequence not only of the correct questioning of the particular subject matter, but also of the trust of a teacher towards a pupil, especially their support and encouragement not to be afraid to think for themselves. Therefore, at the end of our interpretation of data, we draw attention to the training of teachers in the field of communication and integration. Pupils must not feel threatened by teachers that they will say something wrong which will cause fear or shyness to express themselves again. This comfort and trust can only be created by teachers through their individual strategy and choice of methods. Petlák (2011, 2017) pointed out a similar approach, although in connection with teaching throughout the day, which was based on the findings of research conducted in the field of neurodidactics. The author emphasized that a pupil should not learn under stress at school, but in addition to developing cognitive functions, teaching should also be directed towards developing emotionality, since by linking the two hemispheres, a pupil can remember more, finds the context and has an experience. Kesselová (2008) in her research dealt with the communication aspects of teaching Slovak language and mother tongue and creating textbooks for elementary schools. She noted that the text in textbooks in Slovak tradition has a significant impact on the form of the teaching style. She noted that the language system subject matter was too abstract, uninteresting, reproductive, and unrelated to pupils' real needs in real communication. We agree that language knowledge alone does not improve communication. This has been shown by our research. However, we would like to say that we have a predominance of teachers who favor a communication and experiential learning model, but it often remains enthusiastic and does not fulfill its function. This may be due to the uncertainty in the choice and functional use of the methods mentioned, and teachers are afraid that they will cause discipline disruption. Finding the causes, however, deserves more research. Another argument is its non-systemic nature, teachers apply it more to diversify teaching, not systematically to develop and change pupils' thinking. We have seen this in Group B. Liptáková (2012) in her publications also talks about the reserves in developing reading literacy. She sees them in the need for a deeper elaboration of didactics, in further education of teachers in the field, in the absence of an integrated approach to the development of reading literacy, which cannot be the goal of only one subject. This necessity has been confirmed by our research. We would add that an important condition is an appropriately chosen literary text, by which we want to support the subject matter, and especially the purposeful and correct asking of questions that support the pupil's individual thinking and speech. An appropriately selected literary text has the advantage that all students have the opportunity to participate in the *simulated reality*. Through correctly asked questions, they can enter it, be protagonists and confront the reality. That is also why we see the importance of integrating roleplays in conjunction with a literary text into the teaching strategy.

Conclusion

The aim of our paper was to present the results of a possible concept that is part of the teacher's individual concept. It is an approach to a subject matter and learning text supported by a literary text with an emphasis on activating methods. This cross-curricular relationship has proved to be effective in strengthening pupils' implicit thinking in the field of science education, in particular on the forest and forest environment. Of course, several learning texts would deserve similar research, and we cannot generalize the results to the whole science curriculum in the 4th year. The importance of research, however, must be seen in the impetus for further exploring of reading comprehension of a scholarly text, preceded by a consistent approach to reading comprehension of a literary text. A pupil should learn to translate information from both genres into a social context by the development of thinking. The focus of the work with the text is to ask questions. However, asking questions about the explicit level of thinking may cause us to develop the pupils' memory more or eventually develop memorizing. It does not mean that even if pupils use different words in the answer than in the textbook, they understood the subject matter. Unfortunately, it is often enough for a teacher as an indicator of a correct answer. It is a literary text that can help us to get to a higher level of understanding, to an implicit meaning, because it conceals a variety of poetic images, comparisons, transferred meanings. By questions directed towards the implicit meaning of the text, we lead a pupil to own language system, to the ability to argue, to form attitudes and a value system. This is important for communicative and social skills, which are a prerequisite for responding to the changes brought about by the cultural and social environment. This teaches a pupil to be confident in communication, not to be unsure whether they said something correctly, in the same way as it is in the textbook, or how the teacher wants to hear it. The prerequisite for the pupil's expression is interest and not to be afraid to express themselves. This is conditioned by trust, challenging questions and encouragement from a teacher. If a teacher asks questions with an implicit meaning, they have to expect diverse answers. These can be an incentive for further learning content, for comparison, justification, argumentation. The wide range of responses creates space for discussion. With this approach we develop not only logical but also critical thinking of pupils. A teacher teaches pupils to think and it is more important than being able to say a textbook material. In this case, a teacher develops memory structures without deeper connections, and we would like to say that it happens even without further motivation to learn, read, find out more information about the topic, compare and evaluate it.

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