DEVELOPMENT OF METACOGNITIVE SKILLS AND PROCESS OF TEXT RECEPTION

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Abstract: This article is dedicated to the theoretical basis of developing reading skills in primary school learners. In this area we especially focus on the definition of the process of comprehension of the text and on the metacognition process, which is a prerequisite for learning from a text. Metacognitive processes have a high degree of significance for the reception of the text in all school subjects, regardless of the type of the text to be read, therefore their development is considered necessary. In terms of metacognition, a reader must be aware of the various possible ways how to work with the text and understand the text. A teacher's job is to guide learners to build knowledge on how to work with texts at this metalevel.

Key words: metacognition, reading strategies, reading, learning, text comprehension.
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1 Introduction

This theoretical study is dedicated to the field of developing reading skills. We do not want to focus on an overview or methods for acquiring technical parameters that are needed for reading, but on the area of reading comprehension and on the processes that are necessarily represented in this area – these processes are related to the field of metacognition. The study is divided into the following sections; there are three basic parts. The first part defines metacognition; there are definitions by various authors who are specialists in this area. The next part focuses in more detail on the metacognitive processes in terms of their representation during the reception of the text. This chapter also includes clarification of the reception process of the text and emphasizes the relationship between metacognition and comprehension of the text. The last part describes the reflection of metacognition and its development in reading, because learning to read is a key skill that learners need in order to have access to information in all school subjects and in order to know how to learn effectively.

2 Definition of metacognition

„It is at least conceivable that the ideas currently brewing in this area could someday be parlayed into a method of teaching children (and adults) to make wise and thoughtful life decisions as well as to comprehend and learn better in formal educational settings"(Flavell, p. 910).

John Flavell was the first author to deal with metacognition. In his understanding, metacognition is what helps people understand better, learn better, achieve better scholastic performance and make wise and informed decisions. The term „metacognition", which John Flavell and his colleague Ann brown gave to this type of reflection has to led a whole new area of research and the fruits of these studies are now being seen in classrooms across the world (Larkin, p. 3).

Metacognition is a way of thinking that everyone is able to "turn on" at times; the problem is to keep it functioning long enough to know how to benefit from it. Flavell talks about the process of reflecting on our own thought processes and seeing how this takes us closer to achieving our goals or how it impedes our progress (based on Larkin, 2010). There are two ways of looking at metacognition: the first view describes metacognition as unrelated to age and not requiring any cognitive effort. The second view mentions conscious behaviours that become automatic with time and through practice. The second view is problematic for researchers who deal with metacognition because any cognitive act which has been incorporated into a person's cognitive repertory can become automatic and inaccessible to the consciousness (Larkin, 2010).

According to Livingstone (1997) metacognition is one of the latest buzz words in educational psychology, but what exactly is metacognition? The length and abstract nature of the word makes it sound intimidating, yet its not as daunting a concept as it might seem. We engage in metacognitive activities every day. Metacognition enables us to be successful learners, and has been associated with intelligence (e.g., Borkowski, Carr, Pressley, 1987; Sternberg, 1986). Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning. Activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature. Because metacognition plays a critical role in successful learning, it is important to study metacognitive activity and development to determine how students can be taught to better apply their cognitive resources through metacognitive control.

3 Metacognitive processes and text comprehension

Metacognition is a process that is essential for learning from a text. It means "knowing about knowing" and developing the key skill "learn how to learn". Metacognition comes from the root word "meta", meaning beyond in Greek, and "cognition", which means knowledge. "Metacognition is a higher level of cognition compared to the ongoing learning process. Reading includes the control, assessment and regulation of the reading process – with an emphasis on understanding the text. Learners who have developed metacognitive skills can set a reading target, they know what to concentrate on when reading" (Gavora, et al., 2008, pp. 81-82).

The aim of many teachers is to keep children on task, solving the maths problem, writing the story or practising one of the several very necessary skills children need to acquire for life outside of school. The aim of many children is to complete the work as quickly and as successfully as possible. The rewards for this may be a chance to play, or at least not to have to do the work again, or some form of praise from the teacher. It is not only children who think this way, many adults too aim to complete their work as quickly and efficiently as possible so that they can go and do something more enjoyable or so that they can gain their hard earned reward more quickly. Unfortunately, metacognition doesn't fit into this way of working very well. It can lead to more efficient and thus quicker ways of working, but it also entails a slowing down of the process of thinking. However, the rewards can be increased motivation and interest, maintaining on task behaviour and developing skills and strategies, which enable us to transfer knowledge from one domain to another (Larkin, 2010).

Becoming more metacognitive is about slowing down and taking time to enjoy the thinking process, even to marvel at the ability we have to think about so many different things and to allow ourselves to follow our thoughts. Whether metacognition is by definition a conscious act or whether some forms of automatic processing can also be deemed metacognition is an issue still debated by metacognition theorists. Automatic processing has been defined as fast, requiring little effort and control by the subject and operating at a level below consciousness (Larkin, 2010).

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person's cognitive repertory can become automatic and inaccessible to the consciousness (Larkin, 2010).

"When we ask advanced readers to describe how they received a text, they are able to tell us what kind of goals they had for the reception of the text, on which parts of the text they put emphasis, how they acted when one part of the text was not clear, etc. That means that advanced readers not only take notice of the content of the text but also of their own activities carried out when reading the text" (Gavora, 1992, p. 90).

Processes that accompany the reception and also occur during other cognitive activities are known as metacognitive. "Metacognition means "knowing about knowing". It is the active monitoring and managing of our own cognitive activities" (Gavora, 1991, p. 90).

Gavora (1992) divides metacognitive processes into different stages as regards the reception of the text, namely:

- metacognitive processes at the beginning of the text's reception;
- metacognitive processes during the text's reception;
- metacognitive processes after the completion the text's reception.

At the stage of the metacognitive processes at the beginning of the text's reception recipients define their goals in order to know what they want to achieve based on the reception of the text. "Learners' own goal for the reception of the text arises from the transformation of the aim provided by the teacher" (Gavora, 1992, p. 92).

Anticipating and monitoring are metacognitive processes that are applied during the reception of the text. At this stage, besides the reception of the text that is being read, advanced recipients try to anticipate the content of the text and what follows next. "This is called anticipating the text's content" (Gavora, 1992, p. 93). Anticipating can be seen as a diagnostic tool because it reveals the way in which the reception of the text takes place. Existing research studies on the level of anticipation show that there are three characteristics impacting on it, which is the existing knowledge of recipients, the capability of identifying the relationship between the content of the text to be read and recipients' knowledge and the ability of critical assessment of the anticipation alternatives. The monitoring process related to the reception of the text is launched in connection with the fact that recipients are aware of and monitor the success of the procedure that they use during the text's reception. "Monitoring is a manifestation of self-regulation. It is the monitoring and management of their own activities in the process of the text's reception. These are activities of control and assessment. If recipients are not capable of adequate monitoring, serious errors occur in the reception of the text" (Gavora, 1992, p. 94).

It often happens that children emphasize secondary things and overestimate important things. It is considered effective when recipients themselves formulate the questions arising from the text's content during the reception of the text and look for the answers to these questions. "These own questions (self-questioning) are an essential element for monitoring the text's reception" (Gavora, 1992, p. 95).

Metacognitive processes after the completion of the text's reception include recipients' ability to evaluate the success of their activity, whether the objective of the reception has been achieved. As regards learners, these are of course assessed by their teacher.
According to Zelina (1996, p. 25) metacognitive processes include:

- "introspection in the second plan", that is not watching the content but the forms and dynamics of the expression;
- self-examination, self-questioning;
- self-regulation".

Zelina (1996, p. 31) assigns metacognitive skills to the area of personality cognitivization and also outlines the methods comprising:

- "exercise in anticipating, estimating, predicting the effects of actions, predictability - what happens when?;
- supervision, examination, control over the results of our own activities;
- monitoring of our own activities – how I achieved it, how I did it?;
- testing the reality – does it make sense what I do or what I did?;
- coordination and control in learning and problem solving".

The task of developing metacognitive skills is to guide learners to monitor their own work and to avoid doing it only mechanically. In addition to monitoring of their own activities, it is also important to monitor the activities carried out by their peers. This creates an opportunity to express their feelings during the activities and to evaluate the process and realize what was bad about the procedure or what was good, etc. (Zelina, 1996).

The reception of the text has an important role in the development of meta-cognitive strategies. The reception of the text (learning from a text) is a purposeful activity that represents the sum of the following processes: motivation, reading comprehension, memorizing, processing of memory, metacognition and perception of the text. Motivation is the first psychologically important process for learning from a text. In terms of motivation, Hrabal and his team (Čáp, Mareš, 2001, p. 479) outline learners' needs as:

- "cognitive needs such as the need to acquire new knowledge and the need to find and solve problems;
- social needs, particularly the need for positive interpersonal relationships (affiliation) and fear of rejection by people, the need to influence others (power),
- output needs, including the person's level of aspiration and experiencing success and failure in learning".

In addition to this, the learner might be stimulated to learn based on the appearance of the text. For example, the appropriate content of the text to be studied, its attractive graphic design, its interesting visual part, its well thought-out regulatory elements that lead learners through the learning process and give them some feedback to find out how much they understand the issue, etc." (Mareš, according to Čáp, Mareš, 2001, p. 479).

"The reception of the text means receiving and internal processing of information contained in the text. The meaning of the word "reception" is different from the word "reading". Reception is an activity that results in an awareness of the information. Therefore, not every reading is reception" (Baláž, 1986, p. 16).

However, the text is received not only by learners but also by teachers. But teachers receive the text at a completely different level than learners. The text is not a source of new information for them, it is only about specifying the issue. The text tells teachers what to teach in particular, in what order or how.

To make the reception happen, one must make some effort. The person must be activated. The text's reception cannot take place without the will to perceive the text, to understand and remember it. Therefore, the engagement of the will is a prerequisite for the reception of the text. Learners receive texts in order to acquire knowledge required by school. Some of this knowledge is then used in solving tasks and problems. However, also skills and abilities are developed based on this knowledge. In other words, just like every product of communication activity, the written text was also created for a reason (motivational aspect) and with an aim (target, communication purpose). The author wrote the text to make an announcement, to tell the readers something. The readers are going to read the text when looking for information they need. Some learners are sufficiently aware of the

importance of the text's reception as well as of the need for specific information. Others have only a vague idea of what it is about. Therefore, results of the text's reception for individual learners tend to be different. But these results cannot in many cases be attributed to the learners' low level of reception but to the actual assumption of this reception, i.e. learners' objective and motivation. An experienced recipient can receive the text as a routine, quickly and to certain extent without being aware of it. Unawareness is the evidence that the processes of the text's reception were mastered perfectly and that they run smoothly and without problems. Unawareness is a sign of effective reception here, so it is not a negative phenomenon. Depending on the level of the recipient and the difficulty of the text, a major or minor part of the text may be received without being aware. Some parts of the text might be processed by the recipient with a higher level of awareness and some with a lower level of awareness. For sure the ideal to which we should lead the learner is the unaware and unproblematic reception of the text. The path to achieving this level, however, is through a gradual awareness of their own activity and through the improvement of this activity under the guidance of a teacher. This awareness should be confined to those text-related activities which are causing learners problems and where they expend much effort. The other activities that are carried out smoothly and easily do not need to be transferred to the conscious level. However, they should be given the possibility to use and further develop these activities (Gavora, 1992). Referring to various research studies in our country or abroad, we can conclude that the way how learners receive the text is often superficial, which means that learners do not really understand the text, so learners tend to learn things by heart and reproduce the text mechanically. To detect the level of reading literacy we can take a look at the standings of learners in the international assessment programmes. "The text's reception is not just an activity for itself but it is a tool for learners to meet the needs of the curriculum. The inappropriate text's reception hinders the effective learning" (Gavora, 1992, pp.102-103).

There are two known approaches or concepts that propose a way of dealing with the above situation. The first approach is about the total improvement of the text's reception in order to enhance its speed, fluency and comprehension. The reception must be carefully led by a teacher. The second approach regards the improvement of self-regulation during the reception of the text, i.e. to provide learners with better metacognitive skills. The first concept which was created by Švajko (1985, In Gavora 1992) is based on three principles:

- the effective reception of the text requires the learners to view the text as a problem
- situation that needs to be solved;
- learners must define specific goals for the reception;
- the course of the reception must be monitored by learners.

These principles exclude ineffective reception of the text, which is only about a mechanical repetition of the text. Švajko (1985, In Gavora 1992) also developed a method for practicing the text's reception where he puts emphasis on creating ideas about the content of the text, on identifying new information, identifying "topics" of the text, assessment of information and anticipating.

The authors of the other concept are Palincsar and Brown (1984) who were inspired by Vygotsky's theory on the need to switch from adult control to children's self-control and by his theory on the zone of proximal development. They developed a method for the reception of the text that is based on the following procedures:

- making summaries of the text;
- formulating questions about the text;
- explaining the content of the text;
- anticipating the text.

They justified their method as follows: If we ask learners to make a summary of one section of the text, we can find out how much attention they pay to the key information in the text and verify whether they really understand the given text. As regards the formulation of questions about the text, learners again have to focus on the key information in the text, which results in a comprehension check of learners' reading. Learners are required to have a critical assessment of the text at the point when they have to explain the content of the received text. These authors suppose that anticipating the received text is an approach that leads to the formation of inferences and to the actual way of verification that allows to find out if these inferences are really correct. Both concepts were created for learners at the second level of primary schools. The mentioned authors of these concepts claim that receptive communication skills need to be developed and formed to make the reception become a "tool" for acquiring the learning content (Gavora, 1992, p. 105).

"These concepts did not consider the possibility of practicing the text's reception when learning to read. Although the comprehension of the text is to some extent also acquired when learning to read, there is no deep penetration into the content of the text, which is the aim of both these concepts" (Gavora, 1992, p. 106).

Metacognition is not typical only for a specific area of educational activity, it is reflected in all subjects that are taught in primary schools. Understanding metacognition is complex. From one point of view it is clear that metacognition is related to the types of tasks and skills that are required in different school subjects. Many programmes aimed at stimulating cognitive skills, which are incorporated in education courses, are designed to promote metacognitive habits that learners would then be able to apply in different school subjects. "Metacognitive processes ensure active learning and prevent mechanical activities, such as learning by heart without really understanding the actual text. Active learning is more effective than mechanical learning, it allows to obtain deeper and more lasting knowledge, and therefore it is really important to promote it in the teaching process" (Gavora et al., 2008, p. 82).

4 Metacognition and reading

Metacognitive processes can be developed across all school subjects, based on findings from a number of different research studies (Larkin, 2010). In this sub-chapter we are going to outline the form of metacognition in the area of reading and comprehension of the text.

Learning to read is a basic skill that learners need in order to gain access to information in all subjects. Children and adults who have difficulty reading are at a disadvantage in many areas of life. It may seem that metacognition is not related to language processors and reading techniques at all. But reading involves much more than just the ability to decode characters and turn letters into words that have a meaning. Metacognition is very important here and has a large impact on teaching how to read (Larkin, 2010).

There is a well-known method by Palincsar and Brown (1984) called *reciprocal teaching* which encourages teachers to design, examine, clarify, predict and model the key principles that help learners better understand the text. This reading approach is viewed as a constructive process that involves comprehension monitoring as well as the control of cognitive information processing. The *reciprocal teaching* method specifies metacognitive strategies and skills used by readers during the text's reception in the conscious way. Decoding and fluency is really important for the process of learning to read. Learning to read is to understand that the printed letters correspond to the language that we speak. It is about a shift in thinking from focusing on the spoken content to understanding that a language can take various forms, the oral one and the written one. Through acquiring knowledge of the written text we tend to develop our knowledge of how the text was created. Next step is to learn about nouns, verbs, adverbs, etc., and also how sentences are arranged and what types of texts are used with regard to the communication intent. It is a way of storing metacognitive knowledge, it is something that is gradually

developed with a focus on multiple and different types of texts and through a variety of instructions, strategies.

Bryant and Bradley (1985) found out that the ability to apply appropriate strategies when reading to discern between good and poor readers are more than just phonological skills. Metacognitive skills, regulation and control in the process of reading are considered key aspects of successful reading. Reading is something more than just decoding written symbols. We read to get a sense of the world, further reading is important for learning, exploring and explaining situations and it inspires us to create new things. Reading should be above all a pleasure, something we do with devotion, but we realize that many learners have reading comprehension problems. Readers are in a position where there is a dialogue with the author of the text and with the text itself. We help learners understand the text if we play an active role as a reader. In playing this role, we can use strategies designed to encourage active reading, such as asking learners what is going to happen next in the text or putting together the information they read with some previous knowledge, experience. We can also do some reading of factual texts about the environment, about our daily lives, etc., and based on this we can also work with these texts in other school subjects.

Rosenblatt (1969, p. 32) viewed reading as "an event, something that happens between a reader and a text, situated within a particular, wider context. This event she said is also part of the life of the individual and of the group. The focus is always on the relationship between the text and the reader, rather than on the words and decoding".

Rosenblatt (1969, In Larkin, 2010) referred to "aesthetic" and "efferent" reading, which she saw not as opposites but as part of a continuum. Aesthetic reading, or reading for pleasure, would include a focus on the sound of the words, the rhythm of the line, the way the words provide us with the ingredients for creating our own mental images, our own imaginative worlds in response to the text. Efferent reading, or reading in order to do something else, tends to focus on the content of the text – we want to take away some knowledge from the text which we can use in another sphere.

5 Conclusion

In terms of metacognition the reader must become aware of these different possible ways of approaching a text and the teacher's job is to guide the child towards building knowledge of how texts work at this meta-level. One important strategy is to encourage children to reflect on their response to the text, and to discuss with others how the text connects with their own knowledge about themselves. In this way there is an iterative process between text and reader, with the reader bringing to bear their metacognitive knowledge of themselves to the text and the text helping to construct and develop further metacognitive knowledge of self as a reader. Good readers have automated many of the processes of reading including how they make meaning from the text (Larkin, 2010).

This study presents the basic theoretical background for the planned research focused on how to make the development of reading skills more effective. Through finding out about metacognitive strategies represented in the reception of the text in primary school learners, we focus on their abstracting, categorizing and efficiency assessment. Based on this we provide learners with pre-arranged strategies to develop their metacognitive skills (when working with instructive texts) and then we verify their effectiveness.

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