READING COMPREHENSION OF CZECH PUPILS AT THE BEGINNING OF PRIMARY SCHOOL: COMPARISON BETWEENANALYTIC-SYNTHETIC AND GENETIC METHODS

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Abstract:

In Czech schools two teaching methods of reading are used: the analytic-synthetic (conventional) and genetic (created in the 1990s). They differ in theoretical foundations and in methodology.

The aim of this paper is to describe the above mentioned theoretical approaches and present the results of study that followed the differences in the development of initial reading skills between these methods.

A total of 452 first grade children (age 6-8) were assessed by a battery of reading tests at the beginning and at the end of the first grade and at the beginning of the second grade. 350 pupils participated all three times.

Based on data analysis the developmental dynamics of reading skills in both methods and the main differences in several aspects of reading abilities (e.g. the speed of reading, reading technique, error rate in reading) are described. The main focus is on the reading comprehension development.

Results show that pupils instructed using genetic approach scored significantly better on used reading comprehension tests, especially in the first grade. Statistically significant differences occurred between classes independently of each method. Therefore, other factors such as teacher´s role and class composition are discussed.

Key words: *reading skills, reading comprehension, teaching methods of reading, transparent orthography*

Resumé :

Deux méthodes sont utilisées au sein des établissements scolaires tchèques pour enseigner la lecture : la méthode analytique-synthétique (conventionnelle) et la méthode génétique (créée dans les années 1990). Elles se distinguent par leurs fondements théoriques et leur méthodologie. L'objectif de cette contribution est de décrire les approches théoriques précitées et de présenter les résultats de l'étude, qui a suivi les différences de développement de compétences initiales en lecture entre ces méthodes. Au total, 452 enfants de première primaire (de 6 à 8 ans) ont été évalués par une série de tests de lecture au début et à la fin de leur première année, ainsi qu'au début de leur deuxième année de primaire. 350 élèves ont participé les trois fois.

Sur base de l'analyse des données, la dynamique de développement des compétences en lecture et les différences principales entre plusieurs aspects des capacités à lire (par ex. : la vitesse de lecture, la technique de lecture, le taux d'erreur pendant la lecture) sont décrites. Une attention toute particulière est portée sur le développement de la compréhension en lecture. Les résultats indiquent que les élèves enseignés par le biais de l'approche génétique ont bien mieux réussi les tests de compréhension en lecture, et ce particulièrement en première primaire. Des différences statistiquement importantes ont, par ailleurs, été relevées entre les classes indépendamment de chaque méthode utilisée. En conséquence, d'autres facteurs tels que le rôle de l'enseignant(e) et la composition des classes sont abordés.

Mots clés : *compétences en lecture, compréhension en lecture, méthodes d'enseignement de la lecture, orthographe transparente*

1. INTRODUCTION

1.1 The two teaching methods of reading

In the Czech Republic[1] there are two teaching methods of reading: the so-called analytic-synthetic method (AS method) and the genetic method (G method) . Both are phonics, but they use different methodological approaches.

The AS method represents the traditional approach towards teaching of reading. (Kucharská & Barešová, 2012) The syllable is considered to be the key element of a word from which the words are being composed. In order to start syllabic reading children need to identify the phonemes and form them into syllables. Children then need to connect phonemes with graphemes, and through graphical synthesis they need to create a syllable. Fluent reading emerges through training and automation of this process.

G method was developed and introduced in the 1990s (Wagnerová, 1996) and it is based on a presumption that children are able to read without the syllable fixation, simply due to their

[1] Czech language is considered to be a language with consistent spelling system.

natural curiosity. Pupils use only one operation while reading – first they read single letters, then they synthetize the word regardless to the length of the word and the number of syllables.

Each method has it own pros and cons:

AS method has been criticized for its technical or mechanical approach to the reading. Syllabic coding is being trained very intensively and it is being trained decontextualised from words, sentences or whole texts. Reading comprehension is possible at a certain reading level, when a child does not have to consider the process of reading itself (Matějček, 1995) Another important factor is that a child learns how to read the whole alphabet in four forms – print and cursive both capital and lowercase letters. Therefore, a child is hereby compelled to connect one phoneme to four graphemes right from the beginning of the process. Uncertainty and errors are common in early reading and writing. At the same time when children know the graphemes and understand the blending of phonemes/graphemes to syllable they can start reading and are capable of reading more complex words.

Instructions in G method start only with capital letters. Wagnerova (1996) considers it to be the major advantage of this method since children already recognize some capital letters from kindergarten and new ones come to them easily. Children are not "confused" by other graphic representation of phonemes, which enables them to form first words and to read from the very beginning. This method uses short and less complicated texts to allow for easier comprehension. It is believed that this fact intensifies the motivation of children to read.

Lower case letters and cursive are being used later, in the second semester. After a period of stable reading it may therefore occur that the fluency of reading is affected. A great number of the children also show signs of the so-called "two times reading", when a word is spelled in the mind first and after that read aloud.

Each method also uses different approach towards reading comprehension. As already mentioned in the AS method the primary focus is on the technique of reading. G method is more intuitive and based on children needs. From the beginning, the process of blending words is always connected to the meaning and reading comprehension activities are included. This process is to be found much later in the AS method – usually by the end of the first grade when the pupils know all letters and they start to read fluently.

1.2 Research rationale

In recent years several studies have been carried out that compare these two teaching methods of reading (Zelinkové, 2006; Rounová, 2007; Koníčková, 2008; Wildová, 2008) These studies usually lead to different conclusions. The main aim of these studies was to find out

which method is more effective and therefore more suitable for teaching to read. Unfortunately, these studies omit the fact that the so called "problems" in reading in each method can be characteristic for the given method in a specific phase of the acquisition process of reading. Once the correct methodical and didactic approach is applied, these problems tend to disappear. Even though the two methods differ, they can both lead to successful literacy development (Wildová, 2005).

The other possible reason for the different outcomes of the comparative studies is also the fact that reading measures used in these studies had been created before the G method was established. The tests were developed by Matějček and other specialists (Matějček et al., 1987) as coherent texts with more syllable words, often very complicated in terms of structure and understanding. This type of test disadvantages children from genetic method, because they start with shorter and less complex words.

Therefore, we decided to create new tests and apply them in a study mapping the early stages of reading development. The main aim was to prepare the new tests in respect to both methods. We had to vary the use of letter case (lower and upper case letters) and carefully select the words regarding their length, syllable structure, consonants clusters etc. We also prepared fixed questions in order to map the comprehension of the story.

By applying the new tests we were interested in mapping the developmental dynamics of initial reading. We wanted to investigate in detail how the speed, accuracy and technique of reading develops in each of the methods. Are there special patterns in development of each of these aspects in AS and G method? Are there specific types of errors and difficulties in progress of reading skills that are characteristic for each method?

We also wanted to monitor the development of reading comprehension. How does the reading comprehension develop in each method? When does the majority of the children following AS or G method start to understand the content of the text? What level of comprehension can be considered as sufficient according to performance of typically developing readers in each method after 6, 12 and 18 months of formal instruction of reading?

2. RESEARCH METHODOLOGY

2.1 Framework of the research

The research of the developmental dynamics of reading was carried out through the application project of Institute of pedagogic-psychological counselling of the Czech Republic (2008-2010). The goal was to validate the so-called "Three step model of care" (Mertin, Kucharska, et al, 2007), which was designated to help the children with difficulties in reading and writing in the Czech Republic. The secondary goal was to map the development of reading and writing in both reading instruction methods at the beginning of education, to

summarize the developmental indicators and to enhance the diagnostic process when dealing with children with reading problems in school counselling centres. The main objective was not, however, to create new norms of reading tests, but to suggest monitoring of the developmental indicators of reading in both teaching methods of reading. We wanted to support the qualitative evaluation that would help assess the level of child´s reading, to identify problems, and to use this information for school interventions before the diagnostic process in pedagogical-psychological counselling centres[2] is indicated.

2.2 Experimental measures

In order to monitor the reading development in both methods, we created new diagnostic reading texts (Pokorná, Wolfová & Kucharská, in Kucharská et al., 2011) respecting the above mentioned criteria. The texts were administered to the pupils at three times. Pupils were assessed in the first semester of the first grade (T1), at the end of the first grade (T2) and in the mid-term of the second grade (T3).

There were three READING TESTS (RT) designed considering aspects and practise of both teaching methods. They were s designed not only for the evaluation of the decoding skills but also as a measurement of reading comprehension. In all of these three tests the children were asked to read aloud the text – a short story. The examiner measured the time and recorded the errors. After reading, the examiner asked children to retell the story. There were criteria prepared for the evaluation of the narration. In case the child was not able to retell the story, examiner asked open questions.

- "TO THE MOUNTAINS" (T1): a short, modest text in the range of 58 words, contains nearly all letters with the exception of the blunt sibilants, with the prevalence of the known, rather short words, with open syllables and three frequented baby names. The version was created for AS method (both capital and lower case block letters) and G method (capital block letters).
- "TO THE MOUNTAINS II" (T2): updated text, the difficulty was increased by using all letters of the alphabet, the text was the same for AS and the G method, both large and small block letters were used. The text was longer, by the end more demanding and it was amended by the more-syllable words and words with consonant clusters.

[2] In the Czech school system there were two types of counselling centres established as a part of the counselling school system. There is a school counselling centre which is constituted in the school and which enables to provide counselling service in the context of the specific school environment. The pedagogical-psychological counselling centres are constituted in regions and offer support for schools. They are in charge of diagnostics and they usually offer more specific and more personal-orientated intervention (individual therapy) programmes.

- "MOOMIN" (T3): text based on Toy Jonsson's "Sorcerer's hat", lovable and rich text for the more experienced readers.

Besides Reading tests Reading comprehension test was also designed.

READING COMPREHENSION TEST (RCT) (T3): it was designed in order to complete the reading comprehension measure. There was a time limit of 9 minutes given for elaboration of this test. Reading performance of the child in this test is dependent on the ability to decode the words accurately, promptly and to understand the sense of the text. Both working memory and orientation in the text also plays an important role. This test contains three assignments:

Task A: distinguishing the boundaries of the words in a sentence, understanding of the meaning of these words and the meaning of whole sentences.

- Task B: completing the missing words into the sentences (children are supposed to read quietly). This task has multiple-choice kind of answers. Children choose between 3 suggested words. Only one answer is correct, the other two are distractors (phonological - sounds similarly as the right answer, orthographic - looks similarly as the correct response, semantic - has a similar meaning and non-specific distractor). Each distractor was used 4 times.
- Task C: marking the sentences which are true in relation to the picture.

2.3 Participants

The total number of the first grade pupils enrolled into the study was 452 (22 classes). 329 pupils were being taught by the AS method (16 classes), 123 G pupils by the G (6 classes). The ratio between the methods matched the actual educational reality in Czech elementary school system. The ratio between boys and girls was balanced.

The regional representation of the pupils was as follows: 125 students (group A) were from Prague schools, 189 pupils (group B) from the schools in Bohemia and 141 students (group C) from the schools in Moravia. It was a heterogeneous group of participants from various parts of the country.

Since the main aim was to map the dynamics of initial reading development and not evaluating the effect of the methods no other factors were controlled between groups.

2.4 Variables

We observed the reading characteristics used in the Czech Republic for the diagnosis of reading skills. speed of reading (in the 1st , 2nd and the 3rd minute, average speed) b) accuracy (simple error score and the percentage error score given by the number of the incorrectly

read words according to the overall amount of the words being read); c) the technique of reading (monitoring the level of reading technique – reading by letters, syllables, or reading by words) and level of understanding, the ability of the pupil to reproduce the text, the ability to work with text as a semantic whole.

In this paper we will summarize only the observed differences between the methods in the main parameters of reading and we will focus more on reading comprehension.

3. RESULTS

3.1 Differences in performance of the reading between the AS and the G method in speed, accuracy and technique of reading

Since the engagement scores of the tests ((TO THE MOUNTAINS, TO THE MOUNTAINS II, MOOMIN) were not normally distributed as assessed by Kolmogorov- Smirnov ($p < .05$), the nonparametric-tests (Mann- Whitney and Kruskal-Wallis) have been used for the data analysis.

3.1.1 Speed of reading

It is not surprising that the both methods show the same progress of reading speed. Regressing trend in the speed is also apparent in the 2nd and 3rd minute which points to the complexity of the reading process; the decline is being affected by factors such as fatigue, attention deficit etc.

The number of words read in given time limit differs in both methods. If we consider the speed of reading as one of the main indicator of the level of reading development, the G method shows faster progress at the beginning of the teaching of reading. At T1 when the Reading test was first administered, relatively large and statistically significant differences between both groups of pupils were proved (Mann-Whitney test, $z = – 6{,}883$, $p < .001$) in favour of the G method. When retested at T2 and T3 the differences between performances of the readers in the AS method and the G method were also statistically significant (T2: Mann-Whitney test, $z = – 2{,}166$, $p < .03$; T3: Mann-Whitney test, $z = – 1{,}976$, $p < .05$).

Interpreting a statistically significant differences it should be noted that the pupils from the G method in time T1 know all letters of the alphabet, in most of the cases, while the pupils from the AS method do not know all the letters (in accordance with the applicable textbooks).

Interestingly a big differences between classes were found (regardless of the used method), in terms of speed of reading, namely during first grade, apparently due to the differences in school environment, differences in textbooks and methodical approach used by the teachers. Composition of the class and different rate of the progress in lessons apparently played a role as well. This all points out to the need to be very careful while interpreting the speed of reading. It is always affected by concrete school context and environment.

3.1.2 Accuracy

Another observed indicators of the development of reading were error rates. It implies acquisition level of the basic reading skills. Pupils with higher error rates can have significant problems with reading comprehension.

Differences between the AS and G group at T1 were relatively large and statistically significant (Mann-Whitney test, $z = -5{,}777$, $p < .001$) in favour of better performance in the group G. In comparison of the two methods at T2 (Mann-Whitney test, $z = -1{,}880$, $p > .050$) difference was small and statistically insignificant. The same applied to T3 (Mann-Whitney test, $z = -1{,}042$, $p > .050$).

Considering the progress in time (in the 1st, 2nd and 3rd minute of reading) the error rates increased, especially in T1, which can be attributed to increasing fatigue and decline of attention at the time when reading skills are at lowest level.

When we analyse the performance at T2, differences fade away and reading becomes more balanced. This shows also improvements in the reading itself, but also the growing ability to concentrate for a longer period of time.

Variability of the differences between the two groups was greater in the case of the AS method (AS: maximum occurrence 20% of the incorrectly read words, G: max 5%). But the error rates of both methods, in terms of percentage occurrence, were acceptable by the end of the 1st grade (according to Matějček at all, 1987, criterion of error 7-8% from the third grade).

3.1.3 Technique of reading

The main difference between the AS and the G method is in the interpretation of the reading performance on the basis of a description of the reading difficulties in technique.

In the case of the AS method the most of the children were at T1 at the level of uncertain or continuous syllabification of syllables or words, about one-fifth of pupils was still spelling, one tenth of them show difficulties in remembering the letters. A fifth of the pupils read fluently. At T2, the number of pupils with fluent reading increased, while the number of syllabifying pupils reduced, as did the occurrence of problems in the technique of reading. In T3 syllabifying reduced greatly with the exception of the moments when reading a more-syllable word.

In case of G method the most of the children at T1 were at the level of spelling and hesitant reading of words which is in accordance with the respective of this method. What we found interesting is that a third of the pupils read fluently. Occurrence of difficulties with reading

technique reduced over time and growth of fluent reading was apparent (in T3 about a half of the pupils read fluently).

Diagnostically important finding was the fact that we found syllabifying pupils in G method (10-18%). We can suggest that these pupils "spontaneously" started syllabifying because they found it as a more natural and easier way to progress in reading. We can also suggest that these children may be the ones that have difficulties in the development of reading in G method. It may also be an innovative approach of the teacher respecting child's syllabifying.

As far as the other characteristics of reading we can say that reading consonant clusters were more difficult for the AS method. The performance in differences between of class showed greater spread than in the G method.

Occurrence of the so-called two times reading has to be considered separately for the AS and the G method. While in the AS method was the occurrence of two times reading an indicator of possible reading difficulties prediction, in the G method it occurred as a standard part of reading performance (until the middle of 3rd grade). In the G method sample (at T2), the two times reading phenomenon occurred by approximately a half of the pupils, whereas at T3 the occurrence of the phenomenon was significantly lower and approximately same as in the AS method.

3.4 READING COMPREHENSION

3.4.1 Reading comprehension measured by story retelling tests (TO THE MOUNTAINS, TO THE MOUNTAINS II, MOOMIN)

The traditional way, how to assess reading comprehension in the Czech language is based on reading a coherent text even shortly after the start of teaching to read. The children are asked to read a story aloud and afterwards they are asked to retell it. If they have problems additional questions are asked.

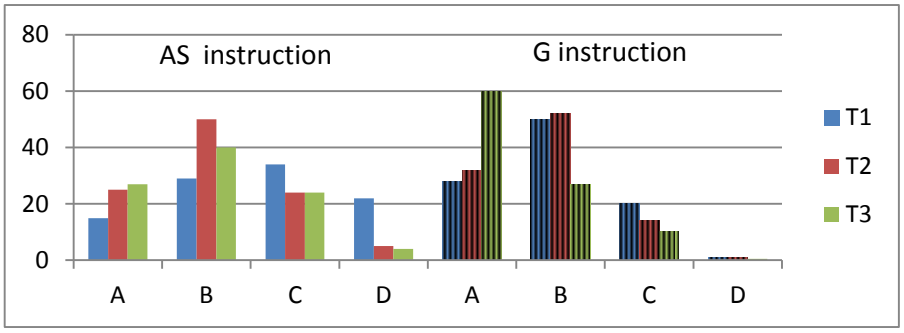
Both methods show greatest differences in the ability to retell the text (graph no. 1), especially in half of the 1st grade – adequate reading comprehension by retelling in the G method occurs by c. 80%, in the AS method only 45% (A+B). Another stages had also shown differences in this skill, for example at T2 84% of the children from G method completed the task (A+B) but only 75% of the AS method children were able to do so. At T3 5% of the pupils from AS method read without any comprehension (D). That never occurred in the G method.

This confirms that in the G method, where reading is connected to the meaning from the beginning of formal instruction, reading comprehension is being developed from the start of the process of learning to read. Whereas in the AS method it is important first to learn the

technique – train syllable reading till fluent reading occurs – which then leads to full reading comprehension.

There might be also other factors, which can influence these findings.

Graph 1 Performance in story retelling tests in AS and G method



T1: TO THE MOUNTAINS, T2: TO THE MOUNTAINS II, T3: MOOMIN

A… perfect with details, B…. important segments, C… brief, weak, D … without comprehension

3.4.2 Performance in Reading comprehension test

The results of Reading comprehension test presented interesting findings (see 2.2).

The analysis did not reveal significant group differences in the overall score in Reading comprehension test (RCT) (Mann-Whitney test, z = -,368, p > .050). Statistically significant differences were revealed only in the first and third type of assignment. Pupils from the G method scored better in the task of marking the boundaries of words– task A (Mann-Whitney test, z = -1,760, p <.050). The AS method pupils, on the other hand, scored better in a task C based on perception of details in a painting while choosing a correct answer (Mann-Whitney test, z = -2,859, p <.050), which can be related to better analytic-synthetic perception. In the task of filling in missing words in sentences (choosing from offered options) the performance of both cohorts was not significantly different. (Mann-Whitney test, z = -,773, p > .050).

Table 1: Average score of Reading comprehension test and overall scores of the AS and G method pupils

Method of reading		Task A	Task B	Task C	Overall score
AS method (N = 258)	**Mean**	**28,13**	**12,86**	**4,39**	**45,37**
	Standard deviation	5,582	4,042	3,512	10,241
	Percentage success rate	85 %	75 %	43 %	76 %
G method (N = 87)	**Mean**	**29,34**	**13,31**	**3,26**	**45,92**
	Standard deviation	4,023	3,664	2,536	7,812
	Percentage success rate	89 %	78 %	33 %	76, 5%
Overall (N=345)	**Mean**	**28,43**	**12,97**	**4,10**	**45,51**
	Standard deviation	5,254	3,950	3,325	9,678
	Percentage success rate	86 %	76 %	41 %	76 %

We also wanted to find out, how different types of assignments relate one to another – if there is any relationship between the task of retelling a story and answer additional questions (the Moomin text) and the task of choosing a missing word into a sentence (in RCT). Is there a link between the reading speed and error rate in reading (the Moomin text) and achieved score in the Reading comprehension text (see table 2)? It is obvious from the table that both of the research techniques are connected to one another at some level, but in reading parameters the statistical significance differs:

- The correlation between the level of reading comprehension measured by performance in retelling a story and measured by the sentence completion is statistically highly significant, the relation is higher at the G method.
- There is a close connection between reading speed in Moomin test and a raw score in Reading comprehension test in the AS method. In the G method the correlation is less statistically significant. It can be interpreted that in AS method there is a more important relation between reading speed and reading comprehension.
- When the children make error in the Moomin test, it influences the reading comprehension (measured by RCT) – more significantly in the G method. The error rate in AS method does not relate to reading comprehension as much.

Table 2: Correlational coeficients between the ability of retelling the text and the raw score in reading comprehension test

N = 345	**Correlation between the level of comprehension / score in reading comprehension test (R)**			**Correlation between reading speed (Moomin) /raw score in reading comprehension tests (r)**			**Correlation between reading error rates / raw score in reading comprehension test (r)**		
	AS method	**G method**	**Overall**	**AS method**	**G method**	**Overall**	**AS method**	**G method**	**Overall**
Task A	-.25***	-.31***	-.28***	.42***	.23***	.45***	-.37***	-.43***	-.47***
Task B	-.18**	-.57***	-.26***	.41***	.39***	.45***	-.28***	-.35***	-.38***
Task C	-.12	-.40***	-.14	.39***	.30***	.36***	-.20***	-.30***	-.16**
Overall	-.26***	-.62***	-0.32	.54***	.40***	.45***	-.39***	.54***	-.46***

**p<0.01; ***p<0.001

4. DISCUSSION

Over more than 50 years there has been just only one method of teaching early reading in the Czech Republic (the AS method). Since another method (G method) was developed in the 1990´s, the debate is now going on about the effectiveness and benefit of each (Zelinková, 2006; Rounová, 2007; Koníčková, 2008; Wildová, 2008).

We can see the debate is going on also in many other countries, especially in those with less consistent orthography such as in English-speaking countries. Though there is a wide agreement that systematic phonic instructions has positive effect on reading skills development, especially in terms of accuracy, it is not certain which phonics approach is the most effective. (Torgerson, Brooks & Hall, 2006; Goswami 2005, Wyse & Styles, 2007)

In accordance with the co called Rose report (Rose, 2006), synthetic phonics (based on sounding out and blending) is the one recommended as a preferred approach for English learners by UK government. Many scientists argue that research evidence does not sufficiently support this recommendation (Torgerson, Brooks & Hall, 2006) and that the evidence show that also other approaches play a role in efficient word recognition development (Goswami 2005). The effect of the synthetic phonics instruction is often compared especially with the

analytic phonic (the method avoiding teaching isolation sounds but instead teaching consonants blends as units).

In the Czech Republic, the comparative studies of the two phonics approaches bring mixed results. We believe it may be due to the fact, that the so-called "problems" (slower speed, higher prevalence of errors in more syllables words etc.) found in reading can be characteristic for the given method only in a specific phase of the development of initial reading skills. Second, the different outcome may be due to the characteristics of used diagnostic tools. The common used measures (Matějček et al., 1987) were developed in 1980´s before the G method was established and so they evaluate and reflect the reading development only in AS method.

This is why this study was proposed with the aim not to compare the effectiveness but to map the developmental characteristics of reading skills in each method and to follow it for a longer period of time (two years).

As expected, the results showed the differences in development of decoding and reading comprehension skills in both methods that correspond to different theoretical basis of the two teaching methods of reading. Positive is the fact that both methods support and lead to the development of reading skills – all of the examined variables (speed, accuracy, technique of reading and reading comprehension) showed improvement over the time in both methods.

The statistically important differences in several variables of decoding reading skills occurred especially in the first grade (T1, T2). The differences tend to be less important with the progress of time. At T3 most of the parameters of reading skills are not statistically different at that time.

As Torgerson, Brook and Hall summarizes (2006), regarding the effectivity of phonics approaches on the reading comprehension the research evidence from randomized controlled trials show no significant differences between synthetic and analytic phonics instructions. Though the effectiveness of the AS and G methods on reading comprehension has not been evaluated, according to the different concepts of these methods it can be expected there will some differences occur in the development of reading comprehension skills. It might be interesting to remind that opposite to the praxis of the synthetic phonics instruction in English speaking countries (Wyse, Styles, 2007), the "pure" synthetic phonic method (G method) in the Czech Republic trains decoding by sounding out and blending in close connection to comprehension right from the beginning of the process of teaching to read. The AS method (combination of the synthetic and analytic phonics) on the other hand pay attention to the comprehension later on, once the decoding skills are in sufficient level. As expected, results of our study show some differences in development of reading comprehension skills. The significantly different pattern of the reading comprehension

performance was found in the ability to retell the text. While almost 80% of children thought by G method proved adequate reading comprehension, only 45% of children instructed in AS method did so at T1. And while 5% of the pupils from AS method at T3 read without any comprehension, such amount of readers without comprehension never occurred in G method even at T1.

While interpreting our findings we must not forget that other factors could however, play significant role. Individual differences between the pupils and their different predispositions for reading or approach of the teacher could be one of the most important factors. The type of assessment of reading comprehension could be important factor as well. Pupils instructed by G method are probably more equipped for retelling the text, because the method is based on pupil´s activity, storytelling etc. The performance of reading skills assessed by word completion to sentences by using the second diagnostic tool (Reading comprehension test) did not show statistically significant differences.

Conclusion and future research

The goal of the research was mainly to highlight the differences between the two teaching methods of reading used in the Czech Republic and to stress the need of different interpretations of difficulties in respective to the method. The differences in reading comprehension were described but not explained.

That is why we have decided to continue to explore this topic and to map in more details the developmental dynamics of reading comprehension in respect to both methods but also in the connection to other factors, which may play role in the reading comprehension development. In the project Reading comprehension-its development and its risks founded by Grant agency of the Czech Republic (P407/13-20678S, 2013-2015) we are going to monitor several areas. 400 pupils (half being instructed by AS and half being instructed by G method) from Grade 1 – Grade 4 are going to be tested several times during one school year 2013/2014.

It may be due the AS method approach that the attention was not paid to the issue of reading comprehension as much as it would have deserved it. Instead, there has been an image of reading comprehension simply developing once the technique of reading is at sufficient level. It was usually presented that this was a moment when child is able to read at least 70 words per minute (Matějček, 1995). It is also important to mention that probably due to the transparent orthography there has been and still persists a stable tradition to perceive early literacy development primary as a visual – motor process.

Therefore as a first project in the Czech Republic, we want to explore the contribution and interrelation of oral language skills, nonverbal intelligence and decoding skills in reading comprehension.

We are going to use some of the already standardized assessment tools such as Cubes (WISC III) and some tests of decoding skills and phonological awareness from the standardized Battery of diagnostic tests of literacy skills for pupils form 2nd – 5th Grade (Caravolas & Volín, 2005): Nonword reading test, One minute reading test, Isolation and Spoonerism. Unfortunately we lock lots of other especially language oral tests to be able to include it in the test battery. So with the inspiration form abroad we are working on other language tests such as: Language awareness test and Receptive picture vocabulary test. In line with the simple view of reading theory (Gough & Tunmer, 1986) we decided to measure also the listening comprehension besides decoding skills. Till now there has not been any study in the Czech Republic dealing with listening comprehension skills.

As it was already mentioned we want to monitor the development of reading comprehension. The key area is therefore the reading comprehension measures. In the test battery we included one standardized test (Reading comprehension text from Battery of diagnostic tests of literacy skills for pupils form 2nd – 5th Grade (Caravolas & Volín, 2005) which is based on sentence completion. In respect to the tradition of working with the whole story text in the Czech Republic, we also decided to include story retelling tests. But in opposite to the vague evaluation criteria in earlier comprehension measures, after exposition of the story the questions are going to be asked in these new tests to all of the respondents and their quality is going to be measured by given criteria. Each tests will contain questions which are meant to monitor literal comprehension (main character identification, situations and details information) and a same number of questions meant to monitor the ability to deduct meaning – finding connections between elements of the texts (understanding unknown words from the context, understanding motivations of events etc.)Since we also want to map environmental factors that may influence the development of reading comprehension we are also preparing the questionnaire for teachers and parents. We will be asking about the teachers´ perception of the importance of reading comprehension in the context of other aspects of reading, about critical moments in the development of pupils reading comprehension and about perception of the individual differences in reading comprehension.

As far as the role of the family environment we will ask for socioeconomic status, parents´ educational level, home literacy environment and also about ways of direct support of the child in its early literacy development.

We believe the findings will help to answer many questions that are left today open about early reading development and specifically about reading comprehension development in the context of Czech language and Czech school system.

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