Gramotnost, pregramotnost a vzdělávání

Odborný recenzovaný časopis zaměřený na problematiku čtenářské, matematické, informační a přírodovědecké gramotnosti a pregramotnosti

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Univerzita Karlova, Pedagogická fakulta
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Dear readers,

We are pleased to present the third issue of the third volume of our *The Literacy, Preliteracy and Education Journal* to you. As scheduled, it is published in English in order to enable the authors and the journal to reach a wider audience and share their research findings and project reports with colleagues abroad. Although it is not a monothematic special issue, when we look at the published articles, we may conclude that there is one strong thread connecting all of them, regardless of the diverse topics of literacy. Whether the article focuses on pre-literacy and reading, language education, or methodological research issues in literacy, they all pay attention to support and the prevention of literacy difficulties. We therefore hope that the contributions will find their readers not only among researchers, but also experts from practice. But first let us briefly introduce each of the papers.

The first review paper, *Predictive models of literacy and deficit and an overview of research*, by Tereza Medřická and Anna Kucharská, provides an overview of variability in different areas of the study of the development of reading literacy, literacy deficit and predictive models, including examples of meta-analytical research studies.

The second research study, *Awareness of the Good Start Method and its Application in the Current Pedagogical Practice in the Czech Republic*, by Milena Kmentová, presents the results of a questionnaire survey focused on obtaining information about the level of awareness of kindergarten teachers about the Good Start Method (GSM) and its application. This research is part of a broader pedagogical research study that aims to increase interest in GSM and design educational material that implements the principles of GSM in practice.

The third paper, *ENGaGED or DISENGaGED? Online Materials to Help Language Teachers Support their Pupils with Dyslexia More Fully*, presents a report by Věra Janíková, Ailsa Marion Randall, Michaela Sojková Šamalová and Pavla Marečková, summarizing information about the international ENGaGE project, which aims to support teachers working with primary school pupils with specific educational needs.

The final contribution is a report by Markéta Švamberk Šauerová, *Projects Supporting the Development of the Pre-*

reading Skills of Children from an Early Age, which deals with reading literacy as a part of modern human education from early childhood. It introduces general characteristics and a description of the main phases of three reading projects prepared to support the development of reading in preschool and school-age children.

In conclusion, let us thank you for your interest and invite you also to follow our journal in 2020. If you are interested in contributing a theoretical, methodological or overview study or report or review to other issues of our journal, do not hesitate to contact our editorial board via the contact email gramotnost@pedf.cuni.cz.

Klára Špačková,
Monika Kadrnožková
editors

Prediction Models of Literacy Skills and Deficits: a Review of the Research

Tereza Medřická, Anna Kucharská

Abstract: Literacy skills – decoding, reading comprehension and spelling – are an integral part of today's world and it is necessary for people to acquire them on an adequate level if they wish to participate actively in society. This does not always happen, however. In practice, we try to prevent the formation of literacy deficits or to at least mitigate their manifestation. Much attention in research is paid to the study of literacy as such, its development and its disorders, and, last but not least, to the potential ways of predicting these disorders. Early detection of individuals who are at risk paves the way for early interventions, thus minimizing the manifestation of problems. Each individual research study is highly specific because it depends greatly on how its authors handle the given topic. This paper provides an overview of variability in various areas of the study of the development of literacy skills, literacy deficits and prediction models, including examples of larger meta-analytic research studies which attempt to settle this variability.

Key words: Literacy skills, literacy deficits, prediction models, methodology, review of research

Introduction – Literacy Skills and Deficits

The term **literacy** certainly has an indisputable place in the modern world. On the lowest level, we talk about basic school skills such as **reading, writing and arithmetic.** These skills are a conduit for additional education and we use them as a tool to obtain information; they also predetermine our professional and social outlook, and they are a hobby as well as a mode of self-presentation and self-fulfilment (Česká školní inspekce, 2013; for more information on the term *literacy*, see e.g. Hart & Hartlová, 2010).

In terms of development, we can distinguish the precursors of literacy skills and conventional literacy skills (NIFL,[1] 2008; Helus, 2012). The precur-

[1] *The National Institute for Literacy.*

sors or predictors of literacy skills are understood to be those abilities and skills which affect the development of our reading and writing later on but are not themselves directly applied in reading and writing itself. Language skills are an example of this. Conversely, conventional literacy skills already include the actual process of reading and writing – we distinguish decoding, reading comprehension and spelling. Precursors, as well as *early* conventional literacy skills, are developed at preschool age prior to the onset of formal school education. Children are surrounded by texts at every turn; they show a natural interest in them and they deal with them in a specific manner (Ferreiro & Teberosky, 1982). More advanced *conventional literacy skills* as such are then the result of school education. They are not the result of natural development but rather of targeted instruction.

The process of acquiring literacy skills is often disrupted for various reasons. Children with specific learning disorders (hereinafter referred to as „SLD" or „dyslexia") are a fairly large group that is clearly defined within the Czech school context. The „inability to learn corresponding skills on a level that would correspond to the intellectual ability of the given child and is not the result of a sensory or mental handicap, emotional or other psychological problems or the result of negligence in rearing or education" is typical for these children (Vágnerová & Klégrová, 2008, p. 369). **Disorders in the acquisition of literacy** in the broader sense of the word, however, are also found in pupils with mental retardation, in pupils with a specific language impairment or in slow learning, in children with a sensory disorder as a result of emotional or psychological problems, parental negligence, a socio-cultural handicap or of immaturity or an unsuitable educational approach (Berninger, 2001; Přinosilová, 2007; Vágnerová & Klégrová, 2008).

In practice, we try to prevent the development of literacy disorders or at least minimize their level of severity. It is for this reason that our attention is shifting away from the study of disorders as such to preschool age, where the prerequisites for the development of literacy skills are formed. If we are able to map out the development of the precursors of literacy and its deficits, we can follow up with targeted intervention efforts that will help develop the areas of insufficiency (for more on the topic of the *risk of dyslexia* see e.g. Kucharská, 2007).

This paper provides an overview of several selected studies dedicated to a deeper understanding of the development of literacy and its deficits and efforts to predict them. The authors attempt to capture the variability of access to various areas of the topic under study – from the theoretical understanding of the concept, through the definition of groups that are monitored, up to the

selection of the actual methodology and methods used for processing data. In conclusion, the authors list examples of meta-analytical studies which also work with this variability and focus (among other things) on the generalization of predictors (disorders) of literacy.

Literacy in Research

Quite a lot of attention is paid to the topic of the development of literacy in research today, as is apparent from the large numbers of records in the citation databases. Researchers monitor the development of literacy itself (e.g. Caravolas et al., 2012; Torppa et al., 2016) but also pay attention to its disorders, as well as the potential ways of predicting them (e.g. Snowling, Gallagher, & Frith, 2003; Kucharská, 2014; Bigozzi et al., 2016; Moll et al., 2016; Medřická, 2019). To put the research findings into practice, we need to have clear and unequivocal conclusions. The generalization of research findings is not simple, however, because individual research studies have their particularities and their conclusions are often not in direct agreement. **Meta-analytical studies and reviews**, which try to bridge the specifics of the individual research findings, attempt to find the convergence of a larger volume of research works and to unify the conclusions of various authors and generalize these research findings.

An example of a large meta-analytical study is the *National Early Literacy Panel* (hereinafter referred as „NELP" – for more details, see NIFL, 2008). NELP is a large-scale meta-analysis that was carried out in the United States from 2002 to 2006. Its goal was to synthesize the results of about 500 available studies dedicated to the development of early literacy skills in preschool children from birth to five years old. NELP was a reaction to the *National Reading Panel* (hereinafter referred to as „NRP", for more details, see NICHD,[2] 2000), which used a meta-analysis of published studies to evaluate the efficiency of reading and writing teaching methods and reacted to the findings from the *National Assessment of Educational Progress* that more than one-third of fourth-grade pupils in the US do not reach a basic level of reading development. Several analytical studies pointed out the wide variability in (pre-)reading skills in children already at the time when they begin school. This turned the attention to preschool children. The goal of the related NELP was to obtain information on how to provide effective support for the early development of literacy (and language) and the influence of the family environment, which could be used in practice to improve children's

[2] *The National Institute of Child Health and Human Development.*

readiness for future reading and writing instruction. The partial and initial goal of NELP, however, was to specify individual predictors, in other words abilities and skills, which predict higher reading and writing levels in preschool children later on.

Snowling and Melby-Lervåg (2016) carried out a later meta-analytical study in Europe, processing 95 publications dedicated to groups of children with a familial risk of dyslexia. They focused on the assessment of the prevalence of dyslexia in a given group and finding the risk and protective factors of dyslexia, the generalization of predictors and the assessment of intervention measures.

Below we provide an overview of possible approaches to studying literacy and its disorders, as well as the options for their prediction.

Methodological Approach

Longitudinal research is a tool for monitoring developmental changes over time (for more see e.g. Langmeier & Krejčířová, 2006) in which we monitor a specific group of individuals in various consecutive phases where we repeatedly assess the developmental level in the area of our interest – here this is literacy skills and their deficits and predictors. We see two approaches here – developmental and retrospective.

If we define a research group that is monitored according to symptoms present at the start of the research, we are working with a **developmental (prospective) model.** We monitor developmental changes at regular intervals and evaluate the current status at the time of measurement. If we are monitoring several partial groups, this approach allows us to compare not only ongoing changes in development within the group but also differences in the scope of developmental changes between the groups. We can see this approach e.g. in the work of Kucharská (2014), who monitors the developmental profiles of language, cognitive and pre-literacy skills in several groups of children. The groups of children who are monitored – children with typical development, children with familial risk of dyslexia and children with a specifically impaired speech and language development – are defined at the start of the research and are then recorded again on the basis of the data obtained during the first phase of the testing. The children's development is evaluated in a total of five testing phases for a period of five years, starting at preschool age (about five years of age) through to the third grade of elementary school, where the children's literacy skills and their deficits are assessed. Besides the dynamics of development in individual groups, Kucharská also compares the developmental profiles of individual groups against each other – the biggest risk group for future literacy skill deficits is the group of children with spe-

cifically impaired speech and language development, followed by the group of children with a familial risk of dyslexia, even though this group often comes close in terms of performance to the group of children with typical development.

If we define a research group that is monitored according to characteristics present at the end of the research, we are working with a **retrospective (anamnestic) approach** in which we go back from the present moment into the past during the assessment. We try to find a relationship between a defining characteristic in the present and specific expressions (or significant events) in the past – care must be taken here, however, when deducing causal relationships in order not to mistake them for simple correlation (Langmeier & Krejčířová, 2006). This approach allows us to look for predictors of literacy skills and difficulties associated with it in the earlier stages of development. Even in this approach, one can find differences in the predictors between the groups. For example, Medřická (2019) works with this approach and similarly to Kucharská (2014), she monitors identical groups of preschool-aged children up through to the third grade of elementary school for a period of five years. However, she uses latent profile analysis to divide the base group of children into two groups on the basis of their performance in the third grade – children with literacy deficits and those without. Unlike Kucharská, Medřická looks at the continual development of children in retrospect, taking into account their literacy status in the third grade of elementary school. On the basis of the performance of children with literacy deficits, prediction models of literacy deficits are set up using *lasso*, in other words L-1 penalized regression, for each of the four previous testing phases (a year before the end of preschool, at the end of preschool, in the first grade of elementary school and in the second grade of elementary school). Individual models set up in this manner represent the best combination of testing methods used for the evaluation of development in the given testing period, which together best predict the later incidence of literacy deficits.

Both approaches can be combined and several authors end up doing this. First, they describe the chronological development in a group and after that they create prediction models. We can cite the work of Moll et al. (2016) as an example. They map the precursors of reading difficulties in a group of Czech and Slovak children at risk of dyslexia. In the first phase, they describe the differences in the developmental indicators between groups of children with a familial risk of dyslexia, those with speech/language difficulties and a control group. They assess their development in three phases over a period of three years – from preschool to the first grade of elementary school. They primarily monitor oral lan-

guage and code-related skills, and in the first grade, they evaluate literacy skills. In the second phase, they focus on the creation of a prediction model in which a two-group latent variable path model shows that early language skills predict code-learning skills and those in turn predict literacy skills. They therefore determine that the originator of dyslexia in the Slovak children is early language deficits and they also find impaired code-related skills measured at a time prior to the start of formal school education in children with reading difficulties in the first grade of elementary school.

Research Sample – Monitored Groups and Size

When studying the development of literacy and its disorders, we can monitor the general population, in which we usually compare individuals according to the level of development of their skills or individuals with deficits and without literacy impairments (e.g. Caravolas et al., 2012; Bigozzi et al., 2016; Torppa et al., 2016). We can also monitor previously defined **risk groups**, where a higher risk of difficulties is expected. The primary „advantage" of working with a risk group is summarized by Snowling and Melby-Lervåg (2016), who point to the fact that if we wish to monitor 50 persons with dyslexia within the standard population, for example, and if the prevalence of dyslexia is 10 %, we need an initial sample of 500 persons, while the size of the basic group in the risk population decreases, depending on the incidence of persons with difficulties in the specific risk group.

Children with a familial risk of dyslexia are a typically monitored risk group (e.g. Snowling et al., 2003; Snowling et al., 2016), as are children with language or speech impairments, and some authors monitor both of these groups concurrently (e.g. Kucharská, 2014; Moll et al., 2016; Medřická, 2019). In their meta-analytical study, Snowling and Melby-Lervåg (2016) focus on a group of children with a familial risk of dyslexia while pointing to the interesting fact that several authors in the original studies do not monitor any potential comorbidity, such as e.g. language or speech disorders. The question to ask then is how often the group of children with a familial risk of dyslexia is created rather as a „mixed" risk group. They also point to the difference in the definition of the group with a familial risk as such – those individuals who have at least one parent or older sibling with dyslexia are generally considered to be children with a familial risk of dyslexia. Researchers have different opinions on how they back up this criterion – while some are satisfied with a parental self-report (e.g. Moll et al., 2016), others verify the parents' reading skills using (standardized) testing methods (e.g. Kucharská, 2014; Medřická, 2019).

We compare risk groups with each other or with a control group or in greater detail – we generate sub-groups of risk children with difficulties and those without, as well as control group children with difficulties and without based on evaluations of learned literacy skills. Authors select various combinations of the individual sub-groups for their analyses with consideration for their research questions, goals and hypotheses.

When processing original texts as part of their meta-analysis, Snowling and Melby-Lervåg (2016) find three types of different research designs: (a) studies which take reading skills as a continual variable and do not divide children into groups of those who are dyslexic and those who are not; in their analyses, they compare a risk group with a control group without additional sorting; (b) studies which compare children from a risk group with subsequent problems in literacy and a control group, and (c) studies which compare children from a risk group without problems in literacy and a control group.

Moll et al. (2016) is an example of a combination of various approaches within one work. While studying risk factors for the development of reading problems, (1) when searching for putative causes of dyslexia, they compared the preschool performance of children from a risk group with problems and a control group without problems and found substantial and statistically significant differences for code-related skills (letter-sound knowledge, phoneme awareness, and RAN) at the beginning of the last preschool year (T1) and again at the end of the last preschool year (T2) and for grammatical skills (only) in T2; (2) when mapping factors associated with the risk of dyslexia (i.e. putative *endophenotypes* of dyslexia), they compared the risk group without problems in reading and a control group without problems, as well as a risk group with reading problems and in phonological skill tests (word/pseudoword recall and non-word repetition), they found impaired performance both in risk children with reading problems as well as in risk children without reading problems in T1 and T2, just as in vocabulary in T1; (3) they compared a risk group with reading problems and a control group with reading problems to determine whether the risk factors differed depending on whether the children came from the control or the risk group and even though none of theT1 and T2 scales from the groups differed significantly, the authors generally found worse performance in children from the risk group, especially in the word/pseudoword recall and non-word repetition tests. Because of the small number of individuals, the authors grouped children with a familial risk of dyslexia together with children with speech/language difficulties into the risk group for the listed part of the analyses; once they focused on the differences between these two groups,

however, they found worse performance on tests of phoneme awareness and RAN (not in letter knowledge or reading) in risk children with reading deficits from the group with a familial risk of dyslexia. On the contrary, the children with speech/language difficulties performed worse in grammar.

Bigozzi et al. (2016), for example, worked with a sample of children from the **general population**. In a research study that monitored differences in predictors of literacy in Italian children with dyslexia and without, they worked with a group of 450 children who were attending standard preschools and elementary schools. The sample size dropped down to 427 individuals once the children entered elementary school because some children entered a different school from the one involved in the research project. Of the 427 children, a group of nine children was created, comprising children who were diagnosed with dyslexia in the third grade of elementary school and the complete data from the previous phase of testing was missing for three other children with dyslexia. The performances of these children in the earlier phases of testing were then compared to the performances of the children from the control group. The control group comprised 65 children without dyslexia and was created from within the original group – these were classmates of the children with dyslexia from the same class (to ensure the same teaching practices), with the same level of SES (assessed on a scale of 1 to 5) and of the same sex.

The maintenance of an adequate **size of the research sample** for the entire duration of the research can be a challenge for longitudinal research. There are many different reasons for this. In the Czech section of the ELDEL WP2[3] research project (Kucharská, 2014; Medřická, 2019), a repeated reduction of the research sample occurred as a result of several factors. Some of the families lost interest or motivation to participate in the project. Others moved or changed their contact information and the researchers were unable to renew cooperation with them. In others, it was impossible to set a time for some of the testing phases because of the parents' busy schedules or because the child was sick for an extended period of time. The most significant drop occurred as a result of revision of the children's affiliation into the groups that were monitored. The initial sign-up occurred on the basis of the interest of the parents and their subjective sorting into one of the recruitment groups on which the project focused. Following the initial testing phase, the affiliation of the children to the individual research

[3] *Enhancing Literacy Development in European Languages, Work Package 2,* for more information please visit: www.eldel.cz.

groups was re-evaluated on the basis of the performance of the children or parents in selected tests or information the parents provided in the questionnaires. From the total of 149 children who were recruited, 48 were recruited into the group with impaired speech (and language) development and only 18 were left after the revision; there were 48 children recruited into the group with a familial risk of dyslexia, of whom 41 fulfilled the criteria (Kucharská, 2014). Over the course of the five years of monitoring the group of children (first as part of the ELDEL project and then as part of the GA UK[4] project), the total number was reduced from the original 149 children to a final 96 children who participated in the project through to the third grade of elementary school and of those, only 76 children passed the revision of the defining criteria for the main group that was monitored (Medřická, 2019).

Organizational difficulties may also arise in the long-term horizon. In the research of Caravolas et al. (2012), about 50 children (out of the initial 735 participants) moved away between the two phases of testing prior to the start of school. 23 children had to be removed from the research sample of Bigozzi et al. (2016) because after preschool, they started attending another elementary school than the one involved in the research project. From a total sample of 308 individuals, 64 children were excluded from processing in Moll et al. (2016) because in the final phase of testing at the end of the first grade of elementary school, these children had postponed the start of their elementary school education and therefore did not attend elementary school, meaning that they were obviously at a disadvantage in terms of formal literacy, which the authors verified directly as part of partial analyses of the data that was obtained.

Problems with the size of the research sample can also occur as a result of retrospective research *per se*. In a retrospective approach we reorganize the sample of children that is monitored on the basis of their performance during the last stage of monitoring. In studying literacy predictors, we divide the sample of children on the basis of the level of literacy reached. The size of the groups that we are able to get is therefore completely beyond our control, as opposed to the size of the recruitment groups, which we create at the start of the research, meaning that we actively regulate their size at the given moment. Depending on the level of representation of a disorder in the group of children that is monitored, we may end up with a small group, which is of no interest to us. Bigozzi et al. (2016) and Medřická (2019) were both

[4] The *Early Literacy Development and Its Variability in Children at Risk of Learning Disabilities* supported by the Charles University Grant Agency (GA UK), no. 364911.

left with groups of children with literacy deficits that comprised a mere nine children. This fact subsequently influences the additional data processing in terms of the way we process the groups that are monitored, e.g. even in terms of selecting the statistical method or the data processing method or the level of usefulness of the results obtained.

Moll et al. (2016) attempted to deal with a small number of children in a group by grouping the risk groups into one. They primarily worked with three groups of children in their research. Two risk groups comprised children with a familial risk of dyslexia (the FR group), where a parent or a sibling was dyslexic, and children with clinical concerns about their speech and language development (the SLD group), whose problems were defined by a performance worse than a standard deviation of 1 (hereinafter referred to as „SD") below the corresponding age average of two out of three criterion tests (specifically, vocabulary and receptive and expressive grammar) or they fulfilled the criteria for a speech sound disorder, which is defined by the correct pronunciation of less than 80 % of the consonants in a pronunciation test. The control group comprised children with typical development (the TD group) without speech and language difficulties and without a family predisposition. The literacy skills (decoding and spelling) of the children were evaluated after a year of formal education at the end of the first grade. For the purposes of prediction, they created a composite score of decoding as a sum of the z-scores from individually given tests. They then defined reading difficulties by a performance that was 1,5 SD below the average of the control group. During the subsequent reorganization of the basic groups according to literacy/reading status, they ended up with a small size of the partial groups created, which complicated the subsequent statistical processing. That is why they decided to combine both risk groups into one „at-risk" (AR) group for some of the analyses. They therefore obtained four groups of children according to the reader status achieved – AR-normal reader, AR-poor reader, TD-normal reader and TD-poor reader. The fact that the TD-poor reader group is included in the partial analyses is quite unusual in this work. Here, the authors compare risk factors for the onset of literacy difficulties between the TD-poor reader and AR-poor reader groups and thereby determine whether these risk factors differ if the children are from the risk group. The analyses indicate that the partial skills monitored in the T1 and T2 preschool age testing phases are more disturbed in children from the risk group, especially on the word/pseudoword recall and non-word repetition scale; however, the key finding is the fact that on no scale in T1 and T2 are there significant differences between these two groups of children.

Medřická (2019) used this result as her basis. As she created retrospective prediction models, she also had to deal with a small number of children in risk groups at the end of the monitoring in the third grade of elementary school. She therefore used one basic group as the basis for the corresponding analyses. This group comprised all three of the groups of children who were monitored – children with a familial risk of dyslexia, children with disturbed language and speech development and children with typical development. Using latent profile analysis, which allows hidden groups to be found in a set of data (for more on the method see e.g. Oberski, 2016), and without having previously defined criteria for these groups, she separated 76 children from the group with a sub-group of nine children with literacy deficits and for them, she created prediction models for four monitored phases of their preschool and early school development.

Period Monitored

The periods for which research groups were monitored by the authors are different. The upper time limit is defined by the moment **when the acquisition of literacy skills, or their deficits, is assessed.** Bigozzi et al. (2016) assess the acquisition of reading skills in the third grade (at the beginning), which is when dyslexia is typically diagnosed in Italy. Similarly, Medřická (2019) assesses the literacy skills of Czech pupils in the third grade, where she expects that problems in acquiring literacy have a deeper basis and are not merely the result of partial impairments with which children can struggle at the start of their school education. Moll et al. (2016) assess the skills of decoding and spelling in Czech and Slovak children already at the end of the first grade, i.e. after one year of formal education. Torppa et al. (2016) connect both approaches by using former findings that some partial literacy skills already reach a ceiling during the first year of education (decoding accuracy specifically), while others (such as decoding fluency and reading comprehension) are connected to them and are developed over a longer period of time. They also only monitor the level of word-reading fluency up to the second grade, while reading comprehension is still monitored in the third grade.

A cultural viewpoint can bring us other differences as well. Besides the orthographic depth of a specific language, these cultural differences are also reflected in the nature of the educational system, which defines the period when children enter elementary school and how formal education is approached, whether preschool education is obligatory and what children's attendance in preschool comprises, i.e. whether preschool-aged children are already exposed to some sort of formal instruction of literacy skills

or if their predictors are at least stimulated and to what extent.

Caravolas et al. (2012) monitored the predictors of early literacy skills in four groups of children whose mother tongues were different in terms of orthographic depth – specifically, English, Spanish, Czech and Slovak. The nature of orthography proved to be a significant factor affecting the development of literacy and the nature of difficulties in the development of literacy (for more see e.g. Caravolas, 2005). Caravolas et al. (2012), however, point to another possible factor, which is the different period for the start of school education or the formal education of literacy skills and also the different content of preschool education. The first phase of testing took place in the last year prior to the start of the first grade of elementary school, in which all children went to kindergarten or the reception year in England. The average age of the English children was younger than in the remaining three groups of children – by six months compared to the Spanish children and by almost 12 months compared to the Czech and Slovak children, which is the result of the different age at which children in each given country enter the first grade of elementary school. The content of the-preschool education is also different. Testing in the first phase occurred at half-term, when the English children had already been exposed to formal literacy instruction for five to six months. The other groups had had instruction in certain letter-sound knowledge and phonological awareness skills as part of kindergarten, and had learned to recognize their names and some signs that they saw in the classroom on a daily basis. These differences are then most probably reflected in the differences found between the groups. The English children had a better knowledge of letters, which is a point of focus in reception class instruction, and the English and Spanish children had better spelling skills, while the Czech and Slovak children had a slightly better picture-word matching reading measure. Generally, however, the groups reached relatively similar results in the first phase of testing in the measurements of early literacy that were monitored.

In one of their partial analyses, Torppa et al. (2016) monitored whether preschool attendance *per se* has an impact – of a total sample of 1815 children who took part in testing in the first, second and third grades, only 1546 took part in testing in kindergarten. The authors compared the development of reading in children who were tested in kindergarten and those who were not. The performance of both groups of children was similar, with the exception of reading fluency in the second grade. All the while, the authors point to the example of Finland, where preschool education focuses mainly on personal and social development as opposed to instruction in academic skills. Children,

however, are still often read to and play with letters, words and numbers and about 50 % of children learn to decode at least a few words prior to starting elementary school.

The „age" factor is also monitored by authors in the meta-analytical study that is part of the NELP (NIFL, 2008). As part of the secondary analyses, they monitor whether the age when predictors (preschool vs. kindergarten) are evaluated has an influence, as well as whether the age at which the final level of literacy is assessed (kindergarten vs. first or second grade) does. In terms of the first question, they found only minor differences in the influence of the predictor in relation to the time when the (early) predictors were monitored, where the strength of the prediction in such a case was higher if the predictors were monitored (usually) at preschool age and in variables in the moderate relationship range. In terms of the second question, they focused on comparing the strength of the prediction in the studies where the „final" literacy skills were assessed in kindergarten or at the start of school education (in the first or second grade). The found significant differences in the strength of prediction in relation to the time when literacy results were assessed in about 50 % of cases. Mainly, they found a stronger relationship if the literacy skills were already assessed in kindergarten – the authors understand this to be due to the time proximity between the predictor measurement and the subsequent outputs, as well as the result of the fact that with the start of school, children are exposed (perhaps) to a greater level of variability in the way instruction in conventional literacy skills is approached, which also causes greater heterogeneity in their performance.

Similarly, in their meta-analytical work, Snowling and Melby-Lervåg (2016) take note of the developmental viewpoint where the authors of the original studies collect data on early literacy development at various developmental stages. As part of studying endophenotypes of dyslexia, where they compare the development of children with a familial risk of dyslexia and children in a control group, and by finding the risk factors associated with familial dyslexia, they sort the processed data into four groups: (a) infants and toddlers (0–3 years), (b) preschool (below 5.5 years and before formal reading instruction starts), (c) early primary school (up to fourth grade), and (d) late primary school/secondary school (from fifth grade).

Grasping the Concept of Literacy Skills and Their Deficits, Definition Criteria

If we wish to assess **literacy deficits**, we must first define them. In practice, literacy deficits are often understood to be **specific learning disabilities.** An SLD

diagnosis includes detailed pedagogical and psychological tests (see e.g. Vágnerová & Klégrová, 2008), of which the results must be considered in the broader context of the child's situation, where we evaluate the complete case history and the course of the child's school education up to this point (defined according to DSM-5; American Psychiatric Association, 2013). We can see this type of approach to literacy difficulties in the research of Bigozzi et al. (2016). They isolated 35 children out of a research group of 427, who were singled out by their teachers as individuals with difficulties in reading and were sent to centres specializing in the diagnostics and treatment of learning disabilities – 12 children were diagnosed with dyslexia.

Several authors, however, „limit" their work to the simple assessment of the level of development of literacy skills. For example, Torppa et al. (2016), who work with the *simple view of reading* concept, evaluate literacy skills on a scale of listening comprehension, reading fluency and reading comprehension. Literacy skills, however, are much more often assessed on the reading (decoding) and spelling scale (e.g. Caravolas et al., 2012; Moll et. al., 2016) or in greater detail, such as decoding, reading comprehension or spelling (e.g. Snowling et al., 2003; Kucharská, 2014; Medřická, 2019). Even here, however, we find considerable variability in the selection of the testing methods which the authors choose for their assessment of the level of literacy.

Neither do we find a unified approach in the method used for establishing **deficit performance limits.** If authors work with a standardized test battery, the deficit limit can be established by the relevant (population) norm. „Normal" performance, however, is often defined by the average performance of children from the control group. Snowling et al. (2003) compare two approaches in the evaluation of the level of literacy skills. They assess literacy skills in eight-year-old children on a scale of basic reading, reading comprehension and spelling, where they calculate one composite score from the standard scores. In the first case, literacy deficits are defined with a limit of minus 1 SD below the average of this composite score in the control group. This criterion revealed literacy problems in 66,1 % of the children from the risk group and 13,8 % of the children in the control group. In the second case, they work with a traditional discrepancy principle, where dyslexia is defined as a significant difference between the expected reading level that is defined via the relevant level of intellect (IQ) and the actual reading level – literacy deficits fell more than 1,5 *SEs* of measurement below the expected value. This criterion revealed dyslexia in 32,1 % of the children form the risk group and 10,3 % of the children from the control group. The authors used the same approach to evaluate the level of literacy skills in six-year-old

children in order to compare the stability of the criteria used over time. 40 % of the children who were classified as dyslexic at six years old according to the discrepancy criteria did not have reading difficulties at the age of eight. Of those who did not have difficulties at the age of six, 20 % were classified as dyslexic at the age of eight. When the first criterion (i.e. 1 SD below the control group average) was used, 91 % of the children who were assessed as dyslexic at the age of six were also dyslexic at the age of eight. They therefore selected the first criterion for further processing (SD).

If the authors use the performance of the control group as a basis, deficient performance is that which falls (usually) 1 or 2 SD below the average. The farther the measured performance is from the control group average, the more severe the deficits are. It is up to the author's decision which limit they choose for their work. If the deficit limit is 1 SD below the average, more children will exhibit the deficit since children with a milder form of the disorder will be included. On the contrary, if the limit of the deficit is set at 1,5 or 2 SD below the average, the percentage of children with a milder form of the disorder is smaller since only children with a more severe form of the disorder will be included. The selection of the limit affects the representation of children with the deficit in the group that is monitored – see e.g. Kucharská (2014), who monitors differences in the incidence of deficits according to the selected level of severity of the impairment in her group of third-grade students. Snowling and Melby-Lervåg (2016) **point out the relationship between the selected deficit criterion value and the level of prevalence of literacy difficulties** in their meta-analysis. They find differences between individual processed studies from the European language environment in terms of the prevalence of dyslexia in children with a familial risk of dyslexia ranging from 29 to 66 %, with these differences being attributed partially to the selection of the criteria that establish the deficit.

We can evaluate literacy deficits as a **whole or as partial deficits** in the area (usually) of decoding, reading, comprehension or spelling. The performance in each of these areas can be evaluated using one test or using a set of several tests whose results we then synthesize. This can be carried out using composite scores, where we add or average out the standardized scores from individual tests (e.g. Caravolas et al., 2012; Moll et al., 2016) or we can define a deficit criterion, which defines in how many tests from the battery the individual must „fail" in order for their performance to be considered as deficient in the given partial skill (see below). In either case, it can occur that an individual scores „extremely" on one of the tests but the overall performance is then evaluated as much less severe because it is evened out by

their performance in other tests from the set. This can be eliminated by using the deficit performance in only one test from the battery to define a deficit.

Something similar may occur when partial deficits are generalized into one total deficit. In practice, individual deficits are combined freely, while some children have a deficit in only one area, other children combine two different deficits and another child fails in all areas. Kucharská (2014) compares two possible approaches to establishing an overall literacy skill deficit. She evaluates literacy skills using partial skills such as decoding, reading comprehension and spelling – she sets a composite score for each of these areas, which is the average of the scores of the individual tests assessing the given area. A literacy disorder is then defined as (a) deficits in at least two of the partial areas or (b) deficits in at least one partial area. In the end, model (b) includes a larger number of children and thereby a higher incidence of literacy disorders in the group of children that is monitored.

Prediction of Literacy Skills and Deficits

As already described in the previous chapters, the research studies dedicated to the study of the development of literacy and the options for predicting disorders show high variability in several areas. Last but not least, this is also true in terms of the selection of the statistical data processing method and the manner in which prediction models are created. **Meta-analytical studies and reviews** strive to find overlaps between a larger number of research studies.

An example of such a work in finding (early) **predictors of the development of literacy** is the meta-analytical work carried out as part of the *National Early Literacy Panel* mentioned in the introduction above (for more on this study and the entire project, see NILF, 2008). More than 7000 thematically focused outputs were mapped out as part of the NELP and subsequently, 234 publications were processed in detail. All of them focus on the relationship of preschool abilities and skills with subsequent levels of literacy development. Snowling and Melby-Lervåg (2016) worked with a slightly smaller volume of data, as they went through about 300 outputs and then processed a revision and meta-analysis of 95 publications based on 21 independent studies. As opposed to the NELP, Snowling and Melby-Lervåg focused on the risk group of children with a family history of reading difficulties and focused thematically on mapping out risk and protective factors in the development of literacy difficulties prevalent in preschool age.

The NELP authors divide the original research studies into two types on the basis of their statistical processing. (1) Studies which show observed rela-

tionships between early literacy variables and conventional literacy outcomes, and which primarily work with simple correlations. The authors carry out a meta-analysis of these studies, where the results are the average correlations across all the studies for individual variables – i.e. early literacy skills and predictors. Out of the number of variables contained in the original studies, those that appeared to be a predictor in at least three studies were selected for these types of analyses. (2) Multivariate studies, which take into account the fact that variables may share predictive variance with each other. These studies use multiple regression or similar analytic techniques and since the original studies work with a high variability of combinations of control variables, the NELP authors then limit their work to analysing the overview of the conclusions of individual original studies.

Snowling and Melby-Lervåg (2016) find two basic types of research design among the original studies. (a) Cross-sectional studies are based on group comparisons between children with a familial risk of dyslexia and a control group at a given time – stage of development – and find risk factors, which are weighed against the familial risk of dyslexia (mapping what are called endophenotypes of dyslexia). The limitation remains, however, that this approach allows one to find certain associations but does not specify any potential causality. (b) Longitudinal prediction studies work with multiple regression and related statistical techniques, which help us understand the relationship between early cognitive skills and later reading. When processing their meta-analytic studies, the authors base their findings on the internationally compiled *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA[5]) statement. The meta-analysis confined itself primarily to the calculation of the mean effect size, if a minimum of two and more studies were available for the given hypothesis. In the opposite case, they would be limited to a systematic review and report effect sizes for individual studies, which primarily had to do with longitudinal studies – similarly to the NELP – where these studies monitor a set of more variables at once (multiple studies).

The NELP authors monitor the level of conventional literacy skills on the level of coding, reading comprehension and spelling. The research synthesis they presented identified groups of ten variables which have strong to moderate relationships with at least one conventional literacy outcome and therefore are a strong to moderate predictor of later

[5] www.prisma-statement.org.

Table 1. Summary of Meta-Analytic and Multivariate Results for Literacy-Related Predictor Variables with Moderate to Strong Relationships with Conventional Literacy Outcomes (NIFL, 2008, p. 67, Table 2.4)

Predictor variable	Description	Decoding	Reading comprehension	Spelling	Multivariate Significance
Alphabet knowledge	Knowledge of the names and sounds associated with printed letters	++	+	++	Yes
Phonological awareness	The ability to detect, manipulate or analyse the auditory aspects of spoken language	+	+	+	Yes
RAN of letters or digits	The ability to rapidly name a sequence of repeating random letters or digits	+	+	NA	Yes
RAN of objects or colours	The ability to rapidly name a sequence of repeating random sets of pictures of objects or colours	+	+	+	Yes
Writing or writing name	The ability to write letters in isolation on request or to write one's own name	+	+	+	Yes
Phonological short-term memory	The ability to remember spoken information for a short period of time	--	+	+	Yes
Oral language	The ability to produce or comprehend spoken language, including vocabulary and grammar	+	+	+	Sometimes
Concepts about print	Knowledge of print conventions (e.g. left-right, front-back) and concepts (book cover, author, text)	+	++	+	Sometimes
Visual perception	The ability to match or discriminate visually presented symbols	--	--	+	No
Print awareness	Tasks combining elements of AK, concepts about print, and protodecoding	--	+	NA	NA

++ strong relationship (0,5 or more) based on zero-order correlations
+ moderate (0,3-0,49) relationship based on zero-order correlations
-- weak relationship (0-0,29) based on zero-order correlations
NA no relevant data available for analysis

conventional literacy skills. Moreover, six of them retain their predictive strength even if other contextual factors are taken into consideration (e.g. IQ, age, socioeconomic status or some of the other variables that were monitored), as multivariate studies confirm. An overview of these variables is provided in Table 1 (below). As part of the secondary analyses, they then monitor whether the predictive strength changes according to the concretization of the given variable where several authors monitor different aspects of a specific scale. While they worked with a composite score for individual variables as part of their primary analyses, here they focused on various aspects of oral language and phonological awareness. They found that more complex aspects of oral language, such as grammar, definitional vocabulary and listening comprehension, have stronger predictive relationships with later conventional literacy skills (specifically with decoding and reading comprehension, and no data was available for spelling) than simple vocabulary knowledge does. Phonological awareness, which reflects the level of linguistic complexity achieved (phoneme, syllable, rhyme) or the type of cognitive operation required (identification, synthesis, analysis) can similarly also be measured in different ways.

In their meta-analytical study, Snowling and Melby-Lervåg (2016) confirmed an increased risk of the onset of dyslexia in children from the familial risk group across all language environments, which was contained in the original studies. Children at risk of dyslexia show slower development of speech and language skills, they acquire literacy and other skills crucial for the development of literacy at a slower rate and signs of dyslexia are already apparent when they are of preschool age. Similarly to the NELP, Snowling and Melby-Lervåg confirm that phonological awareness, knowledge of symbols (letters) and rapid naming (RAN) are strong predictors of literacy skills both in children from the familial dyslexia risk group and in children from the control group. The authors nevertheless find certain specifics as well. Letter knowledge is a long-term predictor in children with a familial risk because, as compared to children from the control group, these children reach what is called the „ceiling" in a certain skill later and that is why RAN appears to be the more significant unique predictor in this risk group.

Conclusion

The authors dealing with the study of acquiring literacy, the development of its disorders and the possibilities of their prediction show vast variability in their research works. This variability affects several different areas. The authors already differ in the way that they approach the topic in methodologically terms – whether they monitor specific develo-

pmental advances at a given moment or whether they go back into the past using a retrospective approach as part of longitudinal research. We have research available that monitors the development of literacy and incidence of disorders in the general population. Several authors, however, focus on specific risk groups (children with a familial risk of dyslexia, children with impaired language and speech development) in which the incidence of individuals with a literacy disorder is higher. When studying literacy, we monitor the development of literacy skills *per se* but also focus on the development of other skills and abilities which are fundamental for the development of literacy – the researchers' interest is therefore shifting to the preschool age, where they monitor the development of predictors and early literacy skills prior to the start of formal education. They continue with the monitoring in the first years of elementary school, before it is possible to assess the level of literacy already achieved – the authors differ in when they assess these skills here as well, however. This often depends on how specifically the authors assess the literacy skills (decoding, reading comprehension or spelling). We can encounter differences in the prevalence of literacy disorders among the studies, which is partially due to the actual definition of a disorder (e.g. specific learning disorders, performance below the average of the control group) or a limit set for a defining criterion. This is why we may encounter different conclusions in various studies. Reviews and meta-analytical studies strive to unify them, pointing to phonological awareness, letter knowledge and RAN as the emerging strongest predictors of the development of literacy.

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Awareness of the Good Start Method and its Application in the Current Pedagogical Practice in the Czech Republic[1]

Milena Kmentová

Abstract: This article presents the results of a contact questionnaire survey aimed at obtaining information on kindergarten teachers' awareness of the Good Start Method (GSM) and its application. The results of the questionnaire survey were supplemented by data obtained by research of electronic resources.

The article briefly characterizes GSM and describes data collection and analysis associated with this method. The survey was conducted from 5/2018 to 6/2019 in ten regions of the Czech Republic and brought 326 relevantly completed questionnaires. More than half of the teachers had no knowledge of the existence of GSM, 39 % of the teachers had mediated information and 7 % of the interviewed had personal experience with GSM. The categorization of further responses showed that the current form of GSM serves mainly as a source of inspiration, as only four respondents confirmed that they use the whole GSM systematically. However, the large number of respondents reported using parts of GSM or working on similar principles relating to at least certain extent to original materials.

The search of electronic resources identified 60 facilities (mostly kindergartens and primary schools) offering children/pupils professional implementation of GSM. These facilities are found across the whole Czech Republic, with the prevalence of the Moravian-Silesian Region, where the author of the Czech version of GSM, Jana Swierkoszová, has been working.

This research is a part of wider pedagogical research aimed at boosting interest in GSM and developing methodological material implementing GSM principles containing a new musical component. The research results reflect the Czech version of GSM as a living source of inspiration whose potential still remains unexploited.

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Keywords: Good Start Method, Czech Republic, pre-primary education

Introduction

This research report presents the results of a contact questionnaire survey, the aim of which was to determine the level of current kindergarten teachers' awareness of the Good Start Method (GSM) and to describe ways of its application in pedagogical practice. Subsequently, the results of the questionnaire survey were supplemented by data obtained by research of electronic resources. The questionnaire survey is a part of wider pedagogical research, which, among other things, analyzes the music component involved in the current Czech version of GSM, confronts the presumed rhythmic abilities and skills of preschool children with the results of individual diagnostics, and creates and based on broad pilot research verifies the lessons inspired by GSM principles with a new musical component.

The impulse for the realization of the questionnaire survey was the critique by an anonymous evaluator of the Technical Agency of the Czech Republic, who commented on the application for financing a project aimed at the innovation of the Czech version of GSM. He reported that it seemed useless to innovate something which had already been well functioning for many decades. His statement was probably as unfounded at that time as my assumption that the GSM potential in the Czech Republic remains unexploited, and that the general awareness of the method itself is despite many years of effort made by the author of the Czech version, PhDr. Jana Swierkoszová, Ph.D., relatively little. It was, therefore, necessary to obtain hard data.

Characteristics of the Czech version of the Good Start Method

In its current Czech form, the Good Start Method is a pedagogical therapeutic method aimed at re-education of psychomotricity[2] problems of children at the turn of pre-school and school periods. It strives to develop all skills and competences preceding the processes of acquiring reading and writing. It includes 25 lessons having a fixed structure of

[2] The term and concept of psychomotricity has more than a century of tradition. It is based on a holistic view of a human individual whose motor skills, along with other psychic functions, are inseparable parts of the interacting system. This benefits diagnostic and re-education methods that systematically target the development of motor skills in favor of re-education of other psychic functions (Bucher, 1980; Blahutková, 2007).

activities. Each lesson is accompanied by one selected song which goes through the processes of initial motivation to the realization of the graphic pattern which is the culmination of all previous exercises. Physical activities are guided by the musical factors of the song and follow the levels of gross motor, fine motor and graphomotor skills. To develop fine motor skills and reproduce the rhythm, a pair of cloth pads filled with hail is used. The development of communication skills in all language levels (passive and active vocabulary, phonematic hearing, self-expression) also has a fixed position in each lesson. No matter whether GSM is implemented in groups or individually, it should always provide an opportunity for each child to experience success and enjoyment. Regarding this aspect, the role of a sensitive lecturer is indispensable. He/she leads the group in a pro-social atmosphere not only in opening and final assessments but also throughout the whole lesson, and he/she should highlight the progress of each child and help him/her to overcome any difficulties (Bogdanowicz & Swierkoszová, 1998).

The comprehensivity of access to all components of psychomotricity and the significant involvement of the music component makes GSM unique compared to other programs and methods designed for the development and possibly re-education of the abilities of preschool children. For example, it is possible to compare it with the Stimulation Program for Preschoolers and Children with Postponement of School Attendance *Maxík* or with the program presented in the publication by Milena Lipnická (2007).

GSM finds its application within the first year of compulsory education (i.e., in the last grade of kindergarten), where it plays stimulating, preventive and possibly prophylactic roles. In the case of children diagnosed with the risk of specific learning disabilities, it has a re-educational character. For the same reasons, it represents a suitable educational tool for children in preparatory classes, i.e., children with postponement of school attendance. In the first grades of primary school, it finds its use within the pre-syllabus period. In pedagogical-psychological counselling centres, the therapeutic character usually involves maximum individual approach and modification of GSM according to the possibilities and needs of a child/pupil. A similar approach is expected when using the method in special schools. At all levels, the use of GSM also has a significant diagnostic value for the educator (Swierkoszová, 2013).

The GSM is implemented in pedagogical practice by the Good Start Method Set, which contains a methodological manual, a workbook of lists with graphic patterns and supporting exercises for their implementation, and a CD (formerly a tape) with recordings of songs.

Origin and distribution of the Czech version of the Good Start Method

The Czech version of GSM began to be formed after 1982 under the leadership of Jana Swierkoszová. The original source of inspiration was the Polish *Methoda Dobrego startu*, whose origin and development had been under the auspices of Marta Bogdanowicz since the 1970s. The sources of the method, however, must be sought in France, where the first target group had been the World War I disabled, and then in the *Le Bon Départ Method*, which Theá Bugnet adapted in the 1940s for children at the beginning of learning reading and writing. More information on the development and content of the Polish version of the method (Bogdanowicz & Swierkoszová, 1998; Zelinková, 2000).

After the meeting of Jana Swierkoszová and Marta Bogdanowicz in 1982, a several of collaborators began to participate in the preparation of the Czech version of GSM. At the beginning of 1983, the Regional Educational and Psychological Counselling Centre in Ostrava issued the first form of the method for its verification within the practice of counselling work in the region. Practical experience, teachers' requirements and the reflection on the use of GSM in counselling centres contributed to the current form of the GSM set, which stabilized in 1998 (the year of publication of the methodological manual, worksheets and music recording) (Bogdanowicz & Swierkoszová, 1998).

The Good Start Method Set has never been over-the-counter and its dissemination has always been associated with a one-day course (accredited educational programme) led by Jana Swierkoszová. In recent years, Kateřina Nikelová has also participated in lecturing the seminar. The KASIMO publishing house provides the reprints of the materials (worksheets are needed by every child). Since 2014, in addition to the entire set, a DVD with a video recording of the implementation of one lesson with a group of pre-school children in the kindergarten environment is available to the graduates of the course. Completion of the seminar entitles graduates to use the method when working with children/pupils/clients.

Research

Subject and aim of research, research issues, research sample

The subject of the research was the current kindergarten teachers' awareness of GSM and ways of implementing this method. The research answered the following questions:

- What is the awareness of the existence of GSM among current kindergarten teachers?
- To what extent is GSM used in pedago-

Table 1. The core of the questionnaire

I do not know about the existence of GSM.	
I know about the existence of GSM, I do not apply it myself, and I do not know any colleague or facility where GSM is applied.	
I know about the existence of GSM, I do not apply it myself, but I know a colleague or facility where GSM is currently applied.	
We have materials for GSM (handbook, worksheets, tape with songs recordings) in our kindergarten.	
I attended a GSM course	in 2000 or earlier.
	between 2001 and 2010.
	between 2011 and 2018.
I systematically use the entire GSM.	
I use some lessons of GSM.	
I use some elements selected from GSM lessons.	
Based on GSM principles, I create my own educational materials concerning the area of graphomotor development.	
I have attended a GSM course, but currently I do not apply any of this method in educational practice.	
I have other experience with GSM and its application than this questionnaire describes (e.g. as a parent, past experience, etc.) Please specify:	
Here you can provide further information / attitudes in relation to GSM not covered by the questionnaire.	

gical practice in its original form, i.e., according to materials and course by Jana Swierkoszová?

- To what extent is GSM an inspirational source for the application of musical activities aimed at the development of pre-school graphomotor?

A questionnaire survey and a qualitative quantitative analysis of the obtained answers were the research methods. The inquiry was represented by the form of a combination of a personal and a written questionnaire – the answers were written at my presence, with the possibility to ask and have the questions explained in detail. The questionnaire provided particular answers describing various possibilities of familiarity, experience and use of GSM. The respondents marked with a cross all the statements they identified with. At the end of the questionnaire, there was an open space to capture other possible facts, experience or opinions relating to GSM (Table 1).

The research sample consisted of participants of seminars focused on the application of musical activities in

Figure 1. The number of questionnaires obtained from individual regions of the Czech Republic. Source: author

logopaedic prevention, which I lectured:

- educational programme for further education of pedagogical staff called *Music activities within the acquisition of Czech as a second language*[3] organized by the National Institute for Further Education;
- accredited seminar *Musical Activities in Development of Vocabulary of Preschool Children* organized by Portál publishing house;
- a series of seminars of *Music Activities in Logopaedic prevention*[4] was organized by the College of Education and Social Sciences, the Secondary School of Education and the Grammar School, Prague 6, Evropská 33;
- other seminars regarding this topic, which I lectured due to invitations of individual kindergartens in Prague and Central Bohemia.

By enrolling in the seminar explicitly

[3] Download from: http://www.nidv.cz/vzdelavaci-programy/3175-hudebni-cinnosti-pri-osvojovani-cestiny-jako-druheho-jazyka?search=Kmentov%C3%A1&filter_finished=0&program_code=

[4] http://hudebnisos.cz/event/show/30

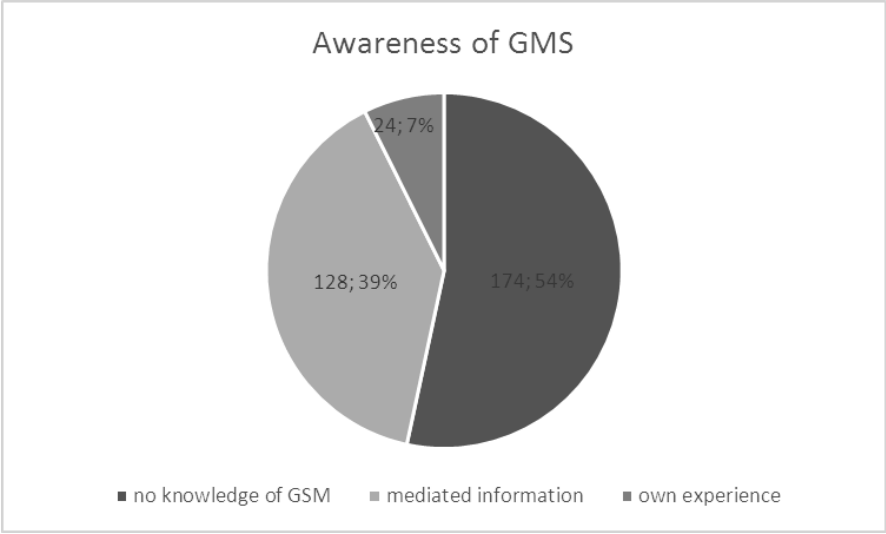

Figure 2. Awareness of the Good Start Method. Source: author

focused on musical activities, the participants showed their interest in music education and competences to conduct musical activities. For this reason, the research sample could not be considered as completely representative; however, it can be concluded that concerning this filtered group, there might be a higher probability of interest in GSM expected than among kindergarten teachers in general.

Data collection process

Data collection took place from May 2018 to June 2019 in ten regions of the Czech Republic and regarded the above-mentioned educational programmes. It was finished when the ratio of responses received in questionnaires seemed to provide no new information more, and the planned National Institute for Further Education programmes in Olomouc and Zlín were cancelled due to the lack of interest from teachers (repeatedly for the second year). The number of questionnaires obtained in individual regions is shown in Figure 1.

Completion of the questionnaires was always performed with the approval of the organizer of the training programme, and there were always about 7 minutes

at the end of the event to complete it. I always mentioned to the respondents who Jana Swierkoszová was, the principle of linking gross motor, fine motor and graphomotor aspects with a song support, and on a flipchart or blackboard I showed two graphical patterns accompanied by singing: from lesson 1B with the song *Šel tudy* and lesson A2 with the song *Pásla ovečky*. I acquainted the respondents with the aim of the questionnaire survey and other areas of GSM research. The map shows the distribution of all 331 questionnaires obtained. However, only 326 questionnaires were, subsequently, analyzed, as 5 questionnaires contained concurrent marking of contradictory claims and were, therefore, excluded as irrelevant.

Results of data analysis from questionnaire survey

Based on the marked statements, the respondents were categorized into three basic categories:

- has no knowledge of the existence of GSM;
- has mediated information about the existence of GSM;
- has had her own experience with GSM because she attended a course of Jana Swierkoszová or as a student of the University of Ostrava or as a mother accompanied her own child to GSM lessons.

Representation of the respondents in these categories is shown in the graph (Figure 2).

Other submitted answers in the questionnaire tried to capture various possibilities of applying GSM and its elements in practice. Concurrent marking of various statements led to setting of categories which illustrate the non-/use of GSM and its principles in practice in detail. Let us first concentrate on a group of those respondents who had only mediated information about GSM.

Most respondents who have only mediated information about GSM or their kindergartens provide written GSM materials and literature do not apply GSM principles consciously in their practice and do not link music activities with the development of graphomotor. This group represents 32 % of the entire research sample. In the graph below, they are subdivided into further three subgroups depending on the availability of a colleague familiar with GSM or the availability of GSM written materials at their workplace. (Reversing the histogram into negative values highlights the non-application of GSM principles). In contrast, 23 teachers (7 % of the entire research sample) indicated that even without detailed information, they use similar principles when working on the development of graphomotor or they use available GSM materials. Again, they are divided into three subgroups, see graph (Figure 3).

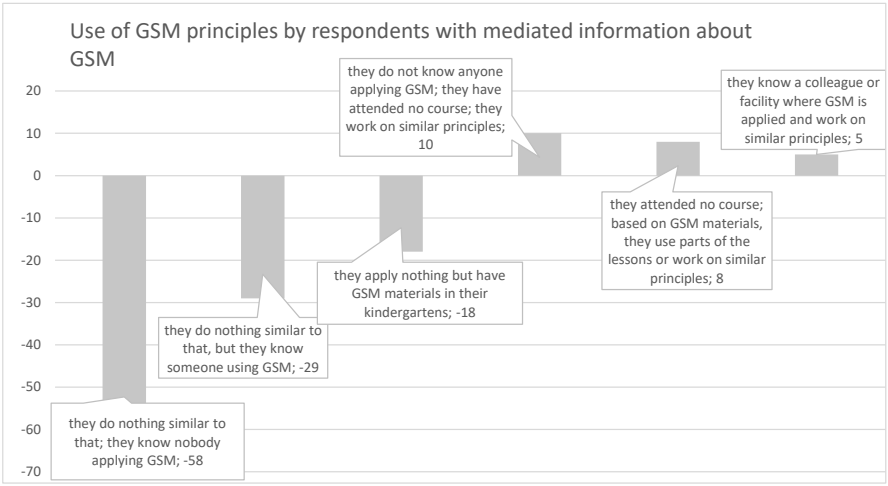

Figure 3. Applying the Principles of Good Start Methods by responders with GSM mediated information. Source: author

A group of 24 respondents who reported personal experience with GSM based on studying, attending a course, or accompanying their own child was also divided by non- / application of the principles, parts or complete GSM. No mother-teacher currently applies GSM principles in her practice. This subgroup, together with other course graduates who currently apply nothing of GSM, represents another 3 % of the total research sample. Most graduates of the course belong to the subgroup of those, who apply elements and some GSM lessons. One of the graduates of the University of Ostrava reported similarly that she met GSM during her studies and Jana Swierkoszová's teaching. Four teachers (1.2 % of the whole research sample) reported that they work with the whole GSM systematically (one of them, from the position of kindergarten principal, sends all teachers of her kindergarten to the course gradually). Again, the column orientation in the histogram of the graph (Figure 4) highlights the non- / use of GSM, its elements or principles.

Results of research of electronic resources

In the school year 2019/20, I supplemented the results of questionnaire survey with electronic resources research. Using the

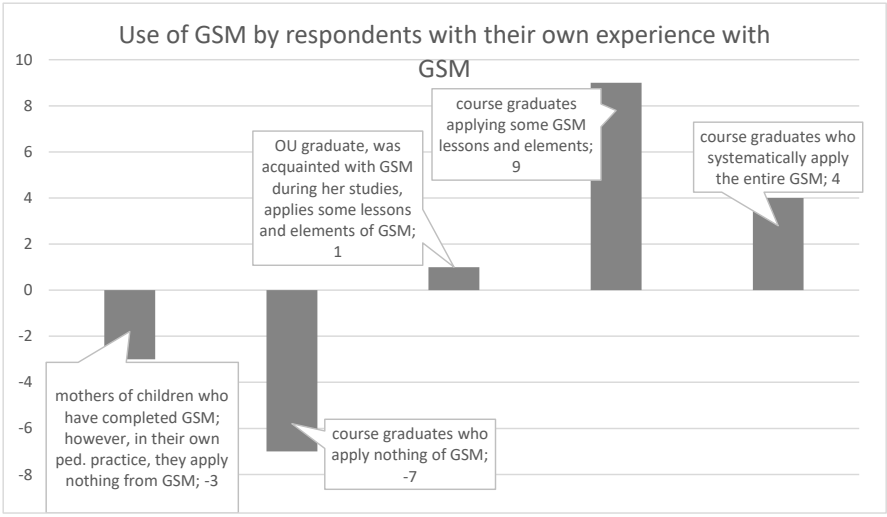

Figure 4. Use of the Good Start Method by respondents with their own GSM experience. Source: author

Google search engine, I was looking for institutions offering children / pupils involvement in systematically organized lessons of GSM on their websites. I found 60 institutions which provided GSM between 2012 and 2020. These were predominantly kindergartens and primary schools; nevertheless, there were also four pedagogical and psychological counselling centres, one youth centre, one Salesian youth movement club and one outpatient department of clinic speech therapist. The representation of institutions in individual regions is shown in the map (Figure 5). Corresponding to our expectations, the highest number of institutions offering GSM was found in the North Moravian Region, where Jana Swierkoszová lives and professionally worked at Educational and Psychological Counselling and the University of Ostrava. The electronic search partially complements the picture of the implementation of GSM in other Moravian regions, where the contact questionnaire survey was not organized.

Figure 5. The number of institutions implementing the Good Start Method in the regions of the Czech Republic. Source: author

Answers to research questions

The results of the questionnaire survey and research allow us to answer the research questions.

What is the awareness of the existence of GSM among current kindergarten teachers?

- More than half of current teachers have probably never met GSM in any way. A relatively large proportion of teachers (39 % of respondents involved in the questionnaire survey) have at least mediated information about GSM. Only a minimum number of respondents (7 % of respondents) have their own experience with GSM.

To what extent is GSM used in pedagogical practice in its original form, i.e., based on materials and course by Jana Swierkoszová?

- From all 326 respondents, there were only four teachers (1.2 %) who reported that they use the entire GSM systematically. However, the results of the electronic search are much more optimistic, as 60 institutions, predominantly kindergartens (50), across the whole Czech Republic, claimed implementing GSM. Nevertheless,

regarding the total number of kindergartens in the Czech Republic, it is still less than one percent.[5]

To what extent is GSM an inspirational source for the application of musical activities in the development of pre-school graphomotor?

- The application of GSM parts, some lessons, elements or principles prevails over the application of the entire GSM in its original form. A total of 10 % of the respondents of the questionnaire survey reported using this way of GSM, and one third of them had personal experience with GSM. However, more than a third (35 %) of all respondents, despite having personal or mediated information, find no sources of inspiration in GSM.

Discussion

The validity of the conclusions drawn here can be to some extent questioned concerning several factors. The research sample of the questionnaire survey is not representative in terms of balanced representation of all regions of the Czech Republic. It can be assumed that greater representation from Moravian regions, especially from the North Moravian Region, would influence the results towards greater awareness of GSM. This assumption is confirmed by the results of the research of electronic resources. Nevertheless, all respondents attending the seminar where the questionnaire survey was held showed a deep relation to music education, which increased the probability of encountering GSM. If the questionnaire had been distributed to all teachers globally, the GSM familiarity might have been lower.

What is the reason for the relatively low awareness of GSM, although Jana Swierkoszová has been propagating, training and ensuring the printing and distribution of materials for its implementation until 2018/19?[6] One of the possible factors could be the fluctuation of teachers, in terms of not staying in such a difficult job, or retirement: many graduates of GSM courses running to the end of the 20th century are no longer active in education. Failure to remember information may also have a certain impact: if GSM is only mentioned when attending secondary school or university studies of kindergarten teaching, but the information is not connected with experiencing at least

[5] The Statistical Yearbook of Education on the Ministry of Education website lists 5287 kindergartens in the school year 2018/19, http://toiler.uiv.cz/rocenka/rocenka.asp.

[6] At present, Kateřina Nikelová is continuing to train in the Moravian regions. In cooperation with Markéta Kutnohorská, daughter of Jana Swierkoszová, with DYS-center Prague, it is planned to renew the offer of courses in the school year 2020/21.

one practical lesson, this knowledge can easily be forgotten.

The relatively high proportion of responses within the categories of "I know but I do not use" and "I know but I use only parts, principles" can support the hypothesis that movement-metro-rhythmic disbalance of music components in many lessons and / or too fast tempo of recorded songs makes GSM implementation in its current form too difficult. This hypothesis is supported by the respondents' free statements at the end of the questionnaire: "only some songs worked", "Songs are too fast, the graphic pattern is often unrealistic to the rhythm." Further research will be devoted to the analysis of kinetic factors (meter, rhythm, pulsation, tempo) of the songs used.

It is worth mentioning here that the development of the Czech and especially the Polish method was accompanied by pedagogical research, which has repeatedly demonstrated the positive influence of GSM on the development of pre-reading and reading skills of children and pupils. The contribution of the method to reeducation of manifestations of specific learning disabilities is also supported (Bogdanowicz, 1985).

Conclusion

Psychomotricity is rightfully in the focus of pedagogical diagnostics of preschool children and children at the turn of preschool and school attendance. The Good Start Method is one example of a holistic view of the development of psychomotricity with the potential for prophylaxis and re-education in cases of being under the risk of difficulties resulting from an uneven development of the child's psychomotricity. Moreover, this method heavily relies on the musical component and the effectiveness of promoting the development of non-musical abilities through musical activities, which has been proven repetitively.

Awareness of the existence of the Good Start Method in the Czech Republic is satisfactory: 46 % of current teachers have at least mediated information about GSM or direct experience with this method. Unfortunately, only 1 % of potential users among pedagogical staff use this method in its current form. For 10 % of teachers, GSM is an inspirational source or part of the other materials they use. From this perspective, the potential of GSM in the Czech Republic seems unexploited. We may hope that the whole educational project aimed at reviving interest in GSM will operate effectively and in near future.

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ENGaGED or DISENGaGED? Online Materials to Help Language Teachers Support their Pupils with Dyslexia more Fully

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Abstract: The article presents an international project, ENGaGE, the aim of which is to support teachers who are working with elementary school learners with specific learning needs. The online materials developed within the project provide teachers with the training they need in order to be able to teach dyslexic learners efficiently and also with materials which they can use in the classroom. The article introduces the motivation behind the creation of the ENGaGE project and the partner institutions. The contents of the teacher training and the task bank for pupils are also presented.

Key word: Special educational needs, dyslexia, English language, German language, elementary education, online task bank

Introduction

"Every child is unique. Although we may rejoice in this fact, it poses a dilemma for educators. When students are diverse, teachers can either 'teach to the middle' and hope for the best, or they can face the challenge of diversifying their instruction."
(Willis and Mann, 2000)

Studying a foreign language is always a challenge for learners, but for those suffering from dyslexia, the challenge is considerably higher. Dyslexic students learn best in inclusive classrooms where their special educational needs can be catered for, and in most European countries, dyslexic learners are educated in integrated classes with learners with no specific or different learning needs. Unfortunately, however, they often do not get the aid and assistance they require. Although teachers try hard to cater for

learners specific needs, many educators lack training and awareness of how to work with this particular group of pupils and they may also face a lack of teaching materials. In order to support not only dyslexic learners but also their teachers, the ENGaGE[1] project aims to provide an engaging and inclusive approach to learning through the creation of an English and German digital task bank specifically designed for learners' special needs. The ENGaGE task bank is a flexible supplementary language teaching resource with vocabulary and grammar exercises, which can be used alongside regular teaching materials. Moreover, the task bank also includes a teacher training programme to support and train teachers who work with learners with special needs.

The project was undertaken in cooperation with seven partner institutions from four countries: the University of Miskolc, who are also the coordinators, the University of Szeged, Lingua-Met Gp. and Navigates LP from Hungary, Lancaster University (UK), Masaryk University (Czech Republic), and Warsaw University (Poland). From Masaryk University, two departments from the Faculty of Education are involved: the Department of German Language and Literature and the Department of English Language and Literature. In addition, as associated partners, several elementary schools from all the target countries also participate in the project by piloting the material.

For pupils who are learning a foreign language, dyslexia can present an additional hurdle to overcome. However, with the right environment and support, it does not have to be an insurmountable one. Some of the challenges pupils may encounter when reading are difficulties recognising a word and reading it out loud, problems working out the meaning of a word or a sentence, and difficulties working out the key information in a text. When writing, some of the problems which can occur may be difficulties with spelling, writing slowly, difficulties with organising thoughts coherently and with accuracy. Some of the techniques and tasks recommended to help dyslexic learners include multisensory teaching, more intensive recycling of previous content, graded tasks, and the gamification of content (cf. Janíková et al., 2013; Nijakowska et al., 2013; Sellin, 2004). These are all addressed in the EnGAGE materials for pupils, and the flexibility of the online materials allows students to practise the same exercise several times and thus to proceed at their own speed. The group projects at the end of each module encourage learners with different abilities to cooperate and to contri-

[1] Digital English and German task bank for 4th to 8th class dyslexic learners (2017-1-HU01-KA201-035955).

bute in their own ways to the success of the shared activity. Learner autonomy and activity is thus also built up through the materials.

The contents of the project

The goal of the project is twofold: firstly, it aims to provide training for teachers in the use of online materials and in how to work with children with special learning needs. Secondly, the task bank provides differentiated materials for pupils.

Structure and content of the teacher training modules

The teacher training, which is provided both in English and in German, consists of six modules. It aims to familiarise teachers with the format of the exercises which the pupils then work with, but more importantly to remind them of, or introduce them to, some of the issues connected to teaching children with dyslexia.

The first module provides the background to dyslexia, the causes of the condition, and what the specific difficulties of dyslexic learners are. The second module deals with techniques for developing the foreign language skills of students with specific learning difficulties and guides the teachers through various strategies which they can implement in the classroom when teaching grammar, vocabulary, or language skills. The third area of interest deals with the use of digital technology in the classroom, provides reasons for using computer-assisted learning, and also explains the term 'gamification'. As inclusive learning and teaching should always respect diversity and enable the equal participation of all learners, the fourth teacher training module is dedicated to the principles of the inclusion of learners with specific needs and differentiation of the learning content, the teaching and learning processes, and also learners' final products. An essential part of language teaching nowadays is project work, which is a valuable tool for differentiation in a heterogeneous class. The fifth teacher training module is therefore dedicated to this approach. Last, but not least, close attention is paid to intercultural elements in project work as the ENGaGE project aims to celebrate different cultures and their traditions.

Each module consists of short informational texts, videos, and presentations followed by interactive exercises, all of which are based on the same platform as the materials for pupils.

Structure and content of the modules for pupils

Each module consists of five lessons. The first lesson is an introductory lesson specifically designed for learners

Table 1. An overview of the topics in the English and German modules

Number of the module	**Topics covered in the English modules**	**Topics covered in the German modules**
1	All about me	Alles über mich
2	Family	Familie
3	Friends	Freunde, Freundschaft
4	School/World of work	Schule, Ausbildung, Beruf and Arbeit
5	Places/home	Orte, Wohnen, Umwelt und Umweltschutz
6	Clothes/weather/services	Kleidung, Wetter und Jahreszeiten, Einkaufen, Dienstleistungen

with dyslexia. The aim of this lesson is not only to familiarise learners with new words but primarily to develop their skills in relation to correct pronunciation and spelling. The ensuing lessons focus on the development of reading, listening, and writing and can be used by both dyslexic and non-dyslexic learners. The second and third lessons are the core units, each of which is further divided into two parts consisting of three tasks which always practise the same area of language. New vocabulary is always introduced at the beginning of each lesson. The fourth lesson is a project lesson and it always contains an individual project which learners complete on their own and a group project which can be done in class. The last lesson is a revision unit which recycles vocabulary and grammar from the whole module.

The modules are designed flexibly so that they can be used both in the classroom and at home, and translations of the instructions into the pupils' mother tongue are provided in order to facilitate this. Furthermore, the pupils do not need to work through the modules systematically. Thus, they can be used as extra support when dealing with any particular topic at any time during the school year.

The topics covered are almost the same for the English and German materials, and were chosen on the basis of the curricula covered in schools in all the partner countries and also on learners' interests and needs, while respecting the criterion of authenticity (pupils, for example, react to messages sent on Facebook or to Instagram posts). An overview of the topics is presented in Table 1 below.

How are the materials adapted to dyslexic learners?

All the tasks have been designed to suit

the needs of dyslexic learners, which is also reflected in the form of the activities. Throughout the modules, a soft colourful background and sans-serif script are used. Moreover, the task bank offers exceptionally rich audio-visual support, since the meaning of words and texts is always illustrated with a picture and, in addition to that, all the texts are accompanied by recordings in order to facilitate reading or to provide an alternative for those learners who find reading too difficult. Moreover, when completing their answers, pupils frequently have several options to choose from. In the case of tasks where pupils have to complete a word or a phrase, they can either write the word or choose the right one from the words which are offered. In the case of open-ended answers, pupils are given the option to either respond in writing or record their answers on their phones. These features allow the difficulty of the task to be adjusted and therefore make the tasks suitable for various individual learners´ needs, including differentiation between dyslexic and non-dyslexic learners needs. The progress within the lessons respects the natural order of acquisition, moving from reception to production, from easier tasks towards more demanding ones.

Furthermore, an emphasis is put on the communicative aspect of the modules. Grammar is taught implicitly and is part of the communication-based tasks. Every lesson is introduced by a short text or a video which provides a context for the whole lesson. Learners also have the opportunity to learn or practise words which are included in that particular lesson, including correct pronunciation and spelling. Another important feature of the task bank is the focus on an intercultural approach, celebrating, describing and comparing customs and traditions in countries from around the world. As mentioned above, the modules were designed for both individual use at home or use in class.

Piloting

The time frame of the piloting phase was September 2019 – March, 2020. Each country involved in the project piloted the materials in at least two or three schools. The teachers were asked to pilot two or three modules, but were given freedom in terms of choosing the topics which suited their syllabus. As a reward, the teachers were given free access to the Classroom platform for three years.

Firstly, the teachers participated in the teacher training in order to become familiar with or refamiliarise themselves with the issues surrounding dyslexia. They also learned how to work with Screenager and the functions it offers. During the training, they were able to choose the activities they wanted to work on, which many of them appreciated as they were able to adapt the teacher training to their individual needs. They generally

evaluated the course positively, although with the normal demands of their jobs, they mentioned that they would have appreciated more time to work on it.

Once they had been trained, they were asked to pilot the materials and to follow their students' progress statistics and task performance. For research purposes, the teachers and students filled in an entry and exit questionnaire and some statistical data was also recorded, such as pupils' classroom code and any known special educational needs, with special attention to dyslexia. This data was then passed on to the project partners in an anonymised form. During the piloting phase the teachers reported any parts of the task bank which worked well or needed to be adjusted in some way, which was very useful feedback for the material developers. The piloting phase is still in progress, and thus no firm conclusions can be drawn at the time of writing.

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Projects Supporting the Development of the Pre-reading Skills of Children from an Early Age

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Abstract: Reading and, particularly, literacy are an essential part of the basic education of a modern person and to be well informed in today's constantly and rapidly changing world and in education is more than ever an essential factor for any individual wishing to assert themselves in society. It is necessary to seek ways of forming pre-reading skills and a positive attitude towards reading for children from early childhood. One of the motivating factors might be the reading development projects proposed by the author. Their use is suitable for children with special educational needs (e.g. children with dyslexia), who very often dislike reading and do it grudgingly. Their basic principle can easily be modified for use in the family and in school/preschool, and may very well take into account regional specifics (e.g. legends of the area).

Key words: Reading development projects, reading, primary literacy

Introduction

The declining literacy skills of Czech children are mentioned not only by teachers but also in the results of many surveys. What are particularly alarming are the figures for literacy of boys aged fifteen and their deteriorating performance in reading literacy in the past decade, signalling the steadily declining level of Czech children.[1]

The situation is serious; surveys show that the problem of declining reading skills (and, as a result, impaired levels of literacy) exists not only in Europe but all over the world. This is particularly true in the case of children with disabilities (cf. e.g. Goncharova, 2006, 2013). For these children we offer below projects that can be used as an important motivating factor, used in practice for children with severe disabilities (cardiac defects) and

[1] See the results of PISA (2003, 2006, 2009) in Palečková et al. (2005, 2007, 2010).

children with learning and behavioural disorders (ADHD, dyslexia, and other learning disabilities).

The aim of the proposed projects implemented in families/schools/kindergartens is the preparation of situations in which the child gains new experiences, which can be used as an important motivational factor in forming positive attitudes to reading and the development of reading as a key pillar of literacy.

There have been interesting surveys in, for example, Germany, the United States (e.g. Bradshaw & Nichols, 2004; Sullivan, Nichols, & Bradshaw, 2007; Gioia, 2004) and in Australia (e.g. Nielsen, 2001), where a series of surveys is focused mainly on traditional reading rather than the area of literacy, but what is not monitored is the respondent's work with texts, the extent of their understanding (cf. Goncharova & Dmitrieva, 2007), and the implementation of existing knowledge and experience and metacognitive processes. Many of these surveys actually map the relationship of the respondents towards reading as an activity, as a way of spending free time. The situation is very closely monitored by ILA and its branches in each country.

As already mentioned, the decline of literacy shown in studies also points out that children are distracted from reading, which can be considered one of the pillars of literacy. This underlines the need to respond to the implementation of appropriate educational projects both in schools and the choice of appropriate ways of developing areas monitored in family education. One of the innovative projects aiming to form a positive attitude towards a child's reading from early childhood is Projects Developing Reading by Markéta Švamberk Šauerová (cf. 2013, 2015a, 2015b). The author prepares a project specifically for a client (a particular family, a particular class) with respect to the needs of the clients. On the basis of experience, she subsequently published projects designed for different age groups as examples of project implementation. The projects are based on intensive communication with a child's parents/teachers, thus also acting to increase social interaction. A lack of interaction can have a negative impact on the quality of literacy of children (cf. Šauerová, 2012; Matějček, 2004).

The projects are mainly based on using experiential pedagogy (experiential learning) in natural surroundings, in the real environment in which the plot of the book takes place. In this way the influence of the environment itself (in the form of many dimensions at once) and the benefits of the psychological effects of the outdoor environment are all used in education/re-education dealing with different difficulties (cf. Faber & Kuo, 2004, 2009; Švamberk Šauerová, 2016; Neuman, 2007). In addition to encouraging reading, these projects may have a certain effect on the prevention of children's inactivity. Overall, projects

developing reading can be seen as comprehensive and with psychological and health benefits, affecting not only the future level of literacy of the child, but also affecting their quality of life through forming an overall positive attitude towards a healthy lifestyle – active leisure in natural surroundings, an accent on communication and interaction, and a choice of passive cultural-aesthetic forms of leisure – reading, planning, teamwork.

Aim

The proposed projects implemented in families/schools/kindergartens involve the preparation of situations in which the child gains new experiences, which can be used as an important motivational factor in forming positive attitudes towards reading and the development of reading as a key pillar of literacy.

Methodics

In order to compile a particular project it was always necessary to use historical sources and the analysis of literary works for children and young people; the compilation of the educational project was based on the author's practical experience with the principles of project learning,[2] especially with home-made projects.[3]

To target the projects well it was also necessary to study background information on the children for whom the projects were designed and subsequently implemented with, including data about the environment (region) which they live in.

Each project was evaluated; the content analysis of a structured interview, analysis of the children's work (reading diary, diary of experiences, school notebooks, stamps), and an analysis of the school's evaluation of the child were used for the evaluation of the project.

This contribution focused its attention on the general characteristics of projects outlined in a general form for children from early childhood through adolescence – the text offers three proposals of a general project for preschool, junior, and secondary school ages.

Projects are formed in a way that can be prepared by every parent and is highly adaptable with respect to the conditions of the region, the interests of the child and the family, and the type of school facilities with regard to the possible limits/specifics of the school talents or skills of the child, including any handicaps (dyslexia, dysphasia, ADHD).

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[2] Cf. e.g. Kašová (1995, 2008); Havlínová (1994); Valenta (1993); Kasíková (2007), Tomková, Kašová, & Dvořáková (2009).

[3] Cf. Valenta (2003).

General characteristics of the projects

The initial impetus for the projects is a book whose plot is set in a specific environment which can be used in the project to visit and perform different motivational tasks there. The appropriate selection of the book with regard to the age of the child is very important. For preschool children a fairytale or a legend (which always take place in the real world) can be chosen, while for younger children we choose fantasy books and adventure stories (for example, the world-famous author Eduard Štorch and his books Minehava or Mammoth Hunters – the plot is set near the Kokořín valley, near Prague), and for teenagers, we choose the life stories of other people (we also can find a lot of books taking place in a real environment – a particular city, mountains ...). The basis of an effective real environment is to compete with the virtual environment of television and computers, the real effect of scent, touch, sound, and even taste (picking raspberries, like Maruška – main literary character from the czech fairy tail "The Twelve Months"). The impact of the outdoor environment brings a number of benefits in the field of cognitive parameters – improving memory, concentration, attention, and a proven effect on mental calming. The effects of the colour green have an influence, too. Many studies demonstrate higher efficiency compared to activities implemented in an indoor environment (the home or the classroom). Reading is very nicely done in natural surroundings and can be suitably supplemented with a variety of interesting activities which can make reading in itself attractive in today's modern times. Some projects might be connected, in the event of interest on the part of the family, with, for example, geocaching, and therefore also linked with the effects of modern technologies. The projects are extremely versatile thanks to the precise interconnection of the needs and interests of individuals and families (school classes/any group). Outdoor implementation is not a precondition; the author connected some projects with activities in theatres or museums, all with regard to the interests of the child.

It is appropriate to combine the effect of a particular environment with well-chosen educational tasks (What could Maruška be thinking while enjoying the raspberries? How did Minehava feel as she lay sick on the shores of the lake?). Some families prepared a nice picnic in those locations, some created beautiful poems, while others brought painting materials with them and painted there, some went to the museum or the nearby cemetery to discover the final resting place of the author, and others went to collect flints, similarly to the Hunters. Everybody can do anything during the project. Trying to walk a part of the

track to compare today's countryside and the countryside described in the book, whether the little shop with cupcakes and cakes is in that town, looking to see if that huge tree on the hill is still standing there, or asking residents where, according to the legend, this or that hill could be. Children are hungry for knowledge and enthusiastic about similar activities. They draw maps, look, invent...they just need space and help "to turn off" the temptations of the modern world. Activities may also be interrupted in the projects (not completed – e.g. beginning reading) and then the Zeigarnik effect can be used. Projects can easily be modified with regard to regional conditions; a deeper knowledge of literature is not necessary. The projects can even be prepared and managed by parents during the normal upbringing of their child. When the projects are realized it is advisable to follow the basic phases of a project – motivation, implementation, evaluation.

These projects are based on the above principles and the Czech regional environment. All of them could be modified with respect to the appropriate region. For example, a Danish mother living near Copenhagen may use the story of the Little Mermaid by Andersen as the springboard for her project (a trip to Copenhagen to see the statue of the mermaid, a walk along the Nyhavn Canal near the house where Andersen lived, a trip to Odense to Andersen's birthplace). For the child the story and the author become something real. Meeting the Little Mermaid is also fascinating for adults; she is sitting on her stone, staring into the distance, still waiting for her prince. For Danish teenagers we can pick the play Hamlet – and a visit to Kronborg Castle. In the Russian cultural environment it is recommended to link literary work with the theatrical environment (the libretto for the ballet Swan Lake, for example), Russian national fairytales (fairytales about animals) can be combined with a visit to the zoo, possibly using specifically named regional legends ('epics' – legends with the heroic deeds of the mighty rich).

For children of preschool age – use of a fairytale
The project "From fairytale to fairytale"

Motivational phase
Each project is based on a thorough analysis of the interests and personality traits of the child (playing the flute, fondness for drawing and painting, handicrafts, singing, a dislike of walking). This project was prepared for a five-year-old girl, and is strongly emotionally based. The project is based on work with imagination.

The basic literature used to plan very short trips was fairy stories that the girl was fond of. Every trip was initiated with a motivational phase of reading or telling the particular story.

Implementation phase

In the implementation phase specific short trips to places connected to some of the fairytales were planned. There were several component parts associated with fairytale elements. Such partial activities included e.g. a trip to Jičín, the town where it was possible to visit the "birthplace of Rumcajs", the Zebín hill, and the forest of Říháholec; the trip was connected with reading the book about Rumcajs, Manka, and Cipisek. Next was a trip to Hrusice called "Following in the Footsteps of the Tomcat Mikeš" (here a hiking trail "In the Footsteps of the Tomcat Mikeš" is already prepared and you can visit the memorial of Josef Lada and buy a book about the Tomcat Mikeš). An evening tour of Prague organized by the Museum of Horrors – "With ghosts to ghosts", which was appropriately connected with legends of the Old and New Town of Prague – was an interesting activity.

At the same time, to support the girl's reading in the spirit of the project "From fairytale to fairytale" (and in accordance with the exceptional musical interests of the girl) frequent visits to theatre performances appropriate to her age were recommended to her family, trips to performances such as Cinderella, The Nutcracker – A Christmas Story, The Magic Flute, Rusalka, The Devil and Kate, and Swan Lake. In most cases it was recommended to motivate the child by means of the book Stories, Legends, and Fairytales of Lady Music (Hostomská, 2007), in which the plots of the most famous operas, operettas, and ballets are presented to children in a comprehensible form.

Fixation phase

The child started her own diary of activities, in which simply using pictures acted to make notes about her visits and activities. The diary in this case has become a work of art; the child's relationship to working on her diary is positive. She was recommended to buy the Tourist Journal, available from tourist centres in the Czech Republic (cf. Šauerová, 2015b), into which the girl could put stickers as a reward for having visited the site. During the interview she said that she loves looking at the miniature photos and the sticker acts as motivation for her to go and reach a particular destination.

Evaluation phase – Analysis of the girl's reading diary as part of the project evaluation

From the interview with the girl we can see an interest in emotionally rich short stories and tales. The situation has improved in the family; the child has begun to ask her parents to read aloud to her and enjoys moments of reading. She has begun to look forward to school and learning to read. Her favourite book in this period was Katie and Skubánek (the name of the dog which Katie has), possibly because the girl is also named Catherine (Katie).

For a junior school child – the use of adventure literature

Project "In the Footsteps of Eduard Štorch"

Project objective

The primary objective of the project was to stimulate the interest in reading of a particular child.

At the beginning of the project the boy's family was particularly interested in changing his negative attitudes to reading.

The negative attitude of the boy to reading (which almost amounted to resistance) could primarily have arisen as a result of his respiratory problems (arising from cardiac and asthmatic problems) while practising reading aloud at school. While he was reading his verbal expression was often not understandable, and the teacher was not willing to accept the recommendations of a special educator to minimize his reading aloud. This situation led to mockery from other children. At the time of the initiation of the project, the boy was nine years old. For the project it was necessary to take into account the boy's medical condition.

Preparatory phase

The preparatory phase was focused on proposing alternatives for the implementation of a specific type of family holiday, finding suitable accommodation, and planning activities with regard to the overall plan – to raise the child's interest in reading, and thus increase his level of reading skills. A thorough analysis of the background data and health status of the boy was performed (Tetralogy of Fallot, condition after surgery) and the child's interests and the interests of other family members were ascertained.

Eduard Štorch, whose work deals with accessible regions, thus making it possible to connect a fictional story with the real experience of the child and to arouse the child's interest in literary stories, was chosen as a basis for the project.

Motivational phase

For the motivational phase a film adaptation of the first part of a film trilogy – Settlement of Crows – was used. Another motivational step was the selection of books for reading. The storylines of the books were associated with the film that was watched – in this case, the book Minehava was selected.[4] Every day, at a regular time, his parents set the boy a section of the book to read. Attention was paid to creating a pleasant atmosphere, often speaking about the part that had been read after reading, and creating the storyline along the way.

[4] Cf. Mertin (2004).

Another part of the motivational phase was a scheduled trip to "Pokličky" – the "Lids" (a rock formation – it looks like several lids from pots) – which is located in the region of Kokořín (sandstone rocks), which is the setting of the scene from the story that was read.

Implementation phase

The project itself followed the previous phase. The principle was to create an atmosphere full of experiences related to the story, with opportunities to move around in the same environment as the heroes of the book. The basis of the plan was a week-long family holiday that took place in the same location as the hike in the motivational stage (because of its links with the book's plot and the life of Eduard Štorch, the region of Kokořín was selected again). The child was told that they would go to places where the story in the book that was being read at the moment took place. The boy was asked to suggest what places appealed to him and what he would like to see; further proposals were prepared by the author of the project.

The child incorporated the Pšovka springs (this river is often mentioned in the book) into his plans and also wanted back to Pokličky, and was interested in trying to go looking for flints. The boy also wanted to visit the Pusty ("Desolate") hill (in reality it is the Lobeč hill).

At this stage intensive cooperation started between the author and the family, so that the project could be tailored to the family's interests as far as possible.

For each day of the week-long holiday a specific hiking route, which always led to a place that the child had had an opportunity to learn about while reading the book, was planned. At the same time another family interest – geocaching[5] – was involved, so that every trip involved a plan to find a cache (mystery cache, multicache, children's cache); this part was planned by the family.

On individual routes locations for a "picnic" were identified, to enable the family to stop together and narrate actively – development of the imagination, creation of poetry, painting, inventing a story from the life of the hero Sokol (Falcon), etc. In the stories the parents were advised to take advantage of what is called the Zeigarnik effect (Zeigarnik, 1938), which proves that unfinished tasks/stories make people more likely to go back to the tasks/stories.

The parents included their own activities in the project.

Fixation phase

The fixation phase was focused on the

[5] More e.g. in Šauerová, Špačková, & Nechlebová (2012).
[6] More in Šauerová (2011).

processing of experiences[6] in the form of notes in a diary of experiences; furthermore, the boy working alone, created a small photobook using a program called "In the Footsteps of Eduard Štorch" and prepared a tip for a trip with the same title for the AZ family server. He prepared a school paper for literary education about the writer with rich photographic documentation.

After a subsequent interview and overall assessment, we can observe that the boy was excited; he chose another book and, after mild initial difficulties, began to read. Difficulties arose in the first phase as a result of poor concentration, losing the context of the plot, and some unknown words. It was obvious how a badly learned technique, specifically, poorly mastered reading competences, stopped the child from establishing communication with the text.[7]

His parents were advised to read in pairs and chat frequently about the section of the book that had been read after that. This part was an important motivator for the child; his confidence was strengthened in the sense of his being an important family member who passed on interesting information that other family members did not know. After overcoming these difficulties his reading skills started to improve; he was able to focus better after beginning reading, motivated by the need to know how the story ended. After reading the book the boy himself chose another book according to the analysis of its content published in advertising material from a bookshop. At the same time the boy expressed a wish to possibly buy these books for his home library, because his current reading was related to books borrowed from the school and city libraries. This interest was greatly appreciated by his parents, as a great number of books by Štorch with a very nice layout and overall design have recently become available on the market.

Evaluation phase

The project elicited a positive response from the child, but rather on the level of motivation regarding reading as an activity than a possible significant change in his attitudes towards reading. The family decided to continue with similar projects, continuing on a regular basis since 2008, and they have become more less a part of the family's rituals and traditions. A change in the boy's attitude to reading occurred after the completion of a second project (From Prehistory to Prehistory).

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7 Cf. the concept of readership of Lederbuchová (2004).

Recommendations for Practice

Basic ways to educate parents how to realise similar projects, or how to encourage parents to search for ways to develop reading in their children, involve, in particular, strengthening cooperation between the family and school and the use of proactive and creative teachers who will seek increasing cooperation with parents and create discussions and workshops at which parents can learn possibilities for the development of reading and literacy skills.

Another option is to appeal to the magazines targeting this group of parents, and in the form of entertaining education, offering parents project proposals as tips for trips.

Another possibility is to organize series of workshops in community centres and counselling sessions as part of the broader educational-psychological counselling[8] which is part of the care for child clients with learning disabilities (behaviour), etc.

Conclusion

Completed projects can easily be modified with respect to the specific needs of the family and are a good complement to supporting literacy. There are no requirements of deeper knowledge of literature and every family is dealt with according to their needs.

It is advisable to motivate the child to read in an enjoyable way, e.g. with the help of proposed projects which are based on the importance of experience in the life of a child and also support the interaction between parents and children.

To support reading is, for a child, undoubtedly the basis for the development of literacy. In addition to activities with high-quality emotional experience that support a positive relationship to reading, it is advisable that parents also participate in school activities and projects involving local and regional libraries.

[8] Currently, we are implementing similar projects in seven families whose children are in the care of the author; they use modified projects - cycling and after the first project, they continue with similarly oriented activities. The attitudes of the children towards reading are improving, with significant shifts in their schools' evaluation of them and performance of school duties. Children with dyslexic difficulties are showing a noticeable improvement (while using re-education processes and tools).

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