

# THE IMPACT OF RECEPTION LITERATURE ON READING COMPETENCE IN CHILDREN WITH MILD MENTAL RETARDATION

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## Abstract

*The study investigated the impact of children's literature reception on literacy at children with mild mental retardation in the process designed on the adapted receptive model of children's literature didactics. An experiment of a one-group pretest-posttest design was conducted on the sample of seven children with mild mental retardation. In the period of one semester their literacy program was supported with children's literature education according to the adapted model of receptive children's literature didactics. After that, their reading competence was tested with the Assessment scheme of reading competence (Pečjak et al., 2011), which was focused on two dimensions of the reading process: reading comprehension and the quantitative and qualitative data of students' reading performance. Among the last one a) reading speed was measured, b) reading rhythm was observed, c) reading mistakes were counted and classified, d) reading accurateness was observed and e) reading expression was measured. The results show the positive impact of the adapted model of receptive children's literature didactics on students' reading competence – the reading speed, the reading rhythm the accurateness of reading performance and the reading expression improved and the number of reading mistakes decreased.*

**Key words:** *adapted model of children's literature didactics, children with mild mental retardation, functional literacy, literature reception.*

## Introduction

Children with mental retardation as well as children with mild mental retardation, show, in most cases, a delay in their language development. This delay influences their competence in productive communication situations (speaking and writing) and in receptive communication situations (listening and reading). Previous research has suggested that individuals with intellectual disability underperform in several areas of reading compared to mental age-matched peers (Loveall, Connors, 2013). Research in language development, conducted on mainstream population, has proven the positive influence of exposure to literature for a child's language development and consequently also on their literacy. Therefore, educational guidelines in curricula for children with mild mental retardation recommend literature education as a means of encouraging language development on the phonological, morphological and syntactical level. The main problem in implementing these guidelines occurs on the everyday level when teachers, faced with a child's comprehension problems on the language level, begin to adapt literature. They simplify the language the author has used in the literary text to the extent they expect to be comprehensible in the communication with children with mild mental retardation. The

consequence of this approach is a paradox on the level of literary theory, according to which literature can only exist in the balanced coherence of its structural components. And language is one of essential structural components of literary text. Changing language in a poem, novel or drama, according to literary theory, exterminates a literary work and reduces it to nothingness (changes it to something else).

To solve the problem of limited language acquisition in persons with mild mental retardation and the relatively advanced use of language in children's literature in our research, the adapted model of receptive children's literature didactics was used. The main advantage of receptive children's literature didactics (Kordigel Aberšek, 2008) is the use of non-language semiotic functions for communication with literary text and the reception of the literary text. A teacher can encourage the process of comprehension with supportive visual communication, using drama, drawing, dancing, music, etc. – a set of communication paths a child with mild mental retardation and a language deficit can use to understand and to express meaning. By using these methods, a child with a limited vocabulary and limited syntactical patterns gets the encouraging environment for learning more than basic language knowledge and consequently reaches higher levels of all communicative skills: listening, speaking, reading and writing.

### *Current Research*

The research focused in literacy of children with mental retardation, mild and modest, points out that these students should be taught to read and write in a process similar to other children (Allor, Mathes, Roberts, Cheatham, et al., 2010a; Allor, Mathes, Roberts, Jones, et al., 2010b; Browder et al., 2008). Despite the fact that the process of achieving literacy is very well explained and that teachers are didactically well educated, this seem not to be true for literacy education of children with mental retardation, since Katims (2001) claimed that four in five children with mild to moderate ID never achieve even minimal levels of literacy. Students with mild and modest mental retardation should be taught to read using strategies and techniques that will provide them with the skills necessary to fully process individual words in connected text and comprehend the meaning of the text.

In the last two decades several studies were focused on experimenting with different approaches to literacy instruction for children with intellectual disabilities and proved that individuals with intellectual disabilities can learn isolated word reading skills with appropriate instructional interventions (Browder, Wakeman, Spooner, Ahlgrim-Delzell, & Algozzine, 2006, 1998; Joseph & Seery, 2004).

Research of literacy instruction for persons with mental retardation can be, (Allor et. all. 2010c) according to the didactical approach they used, classified into three groups: those which focus on sight word recognition, those which focus on teaching phonics and those which focus on reading comprehension.

The *sight word recognition* method (also called *look and say* method) is based on the fact that many words (in the English language) are not written in the way they sound. Furthermore, some words are very irregular and difficult to decode. Consequently, it should be easier for the reader to memorize how they look and recognize them by sight rather than learn all the rules according to which they are written. In the *sight word recognition method* students receive stimulus control prompting techniques in the process of learning reading whole words. This method has got the most attention in literacy programs for children with mental retardation. In Browder and Xin's meta-analysis of 48 studies that taught systematic sight word recognition to individuals with moderate mental disorder very promising results have been achieved (1998).

A second group of researchers focused on teaching phonics to individuals with mental disabilities. Particularly beneficial in some of these studies was the use of stimulus connected with prompting and fading techniques. In his literature review from 1990 to 2002, Joseph and

Seery (2004) found seven studies teaching phonics to individuals with moderate or mild intellectual disabilities. The results indicated that, in spite of the lack of direct or explicit instruction, students were able to benefit from phonics instruction. In another study conducted after phonics instruction, students were better at sounding out words compared to a control group, although final ability was found to be dependent on the initial general language skills of the individual participant (Conners, Rosenquist, Sligh, Atwell, and Kiser (2006).

The latest research in reading instruction of persons with intellectual disabilities goes beyond training isolated skills. Lundberg and Reichenberg (2013) demonstrated in their study that students with mild intellectual disabilities are capable of constructing meaning from written text by guided social interaction. Further M. Reichenberg (2013) investigated if Reciprocal Teaching could scaffold the active reading of adults with intellectual disabilities. A study was performed with a group of five intellectually disabled participants and proved the positive influence. This and similar research underlines a necessity of *comprehensive reading instruction* (Allor, Mathes, Roberts, Cheatham, et al., 2010; Allor, Mathes, Roberts, Jones, et al., 2010; Browder et. al., 2008). In their study *Methods for increasing the intensity of reading instruction for students with intellectual disabilities* Allor and her colleagues implemented a comprehensive approach to teaching reading and included phonemic awareness and systematic decoding as well as oral language and comprehension. They pointed out that students with intellectual disabilities need consistent explicit systematic teacher-led instructions over a long period of time. Students with ID require extensive practice on critical skills to make meaningful literacy gains. Educators must be creative and persistent as they plan the instruction and reading practice that is intense, motivating and meaningful (Allor et al. 2010, p. 510).

The present study can be seen as one that is using comprehensive reading instructions. Additionally to their literacy program, children with mild mental retardation and language deficit were taught children's literature according to the adapted reception model of teaching children's literature. Meaning with a number of literature didactics teaching methods that origin from non-verbal semiotic functions, i.e. imitation, mental imagery, drawing and symbolic play, and with simultaneous use of the advantages of modern ICT.

## Methodology of Research

The experiment was conducted on the sample of children with mild mental retardation. As a method a one-group pretest-posttest design was used in the frame of which language, literacy and reception progress of students was observed and measured. The experimental factor was the adapted model of receptive children's literature didactics which was used in the period of one year.

### *Data Collection Instrument*

The progress in literacy competence was measured with the *Assessment scheme of reading competence* (Pečjak et al., 2011). The used *Assessment scheme of reading competence* – data collection instrument – is focused on two dimensions of the reading process: reading comprehension and the quantitative and qualitative data of students' reading performance. Among the last ones a) reading speed was measured, b) reading rhythm was observed, c) reading mistakes were counted and classified, d) reading accurateness was observed and e) reading expression was measured. 'Reading expression' is a term which is used to describe the readers' ability to express meaning of what he is reading with the quality of his voice.

For the purpose of the study a special assessment survey of reading competence for persons with mild mental retardation was prepared, which was based on the selected literary text – fairy tale. A fragment of the un-adapted fairy tale *Muca Copatarica (The slippers cat)*, by Ela Peroci was selected. The fragment contained 178 words.

### *Participants*

Seven children with diagnosed mild mental retardation were selected for the study. They were students of 6<sup>th</sup> year of a school with Adapted study program with lower educational standard. Adapted study programs with lower educational standard are carried out in schools which educate children with mild mental retardation. These children have, in comparison with children of the same age, different cognitive structure, manifested in slower generalization and conceptualization competence, limited memory, limited generalisation competence. A consequence of their limited intellectual competence is limited problem solving competence. Children with mild mental retardation included in Adapted study programmes with lower educational standard show also a delay in communication competence development: typical are difficulties in articulation, oral and written language reception and expression. These students do not achieve the mainstream educational standards; they need the adaptive study program with lower educational standard, adapted teaching methods and study conditions.

In the time span of four months (one semester) two participants left the group. One girl migrated with her family to another country; another was absent from school most of the time and did not participate in testing.

### *Context of the Study*

Children with mild mental retardation, included in the study, have been taught children's literature in previous four years according to the didactic model, mostly used in contemporary school for children with mild and modest intellectual disability. The teacher selected a poem, fairy tale, and novel. According to his expectations, which language elements of the literary text will cause comprehension problems, he simplified the language. Sometimes, if he judged the setting and plot would be too complicated to follow for his students, he adapted them too. In the semester the experiment was conducted, the teaching paradigm was changed: To solve the problem of limited language acquisition in our research, the non-language semiotic functions were used. A teacher encouraged the process of comprehension with supportive visual communication, using drama, drawing, dancing, music, etc. – a set of communication paths a child with mild mental retardation and a language deficit could use to understand and to express meaning.

### *Data Analysis Procedure*

In the time span of the study the measuring of each segment of students' reading competence was performed twice: the initial state of students' reading competence and the state of students' reading competence after a one semester long exposure to the adapted model of receptive children's literature didactics. Students' achievements were measured and recorded to find out and prove the reading progress of students with mild mental retardation.

Tables for registration of each component of reading competence were designed, questions for measuring reading comprehension were prepared and keys for the evaluation of correctness of particular answers were defined.

## Research Results

Before the experiment and after four months of exposing students to children's literature according the adapted model of receptive children's literature didactics model, the students' reading speed was controlled. Table 1 presents the initial results (I) and the results of measuring students' reading competence after four months of experiment (a4M).

**Table 1. Reading speed.**

	Girl A		Girl B		Girl C		Boy D		Boy E	
	I	a4M	I	a4M	I	a4M	I	a4M	I	a4M
Words/minute	83	88	45	55	45	79	56	66	*	20**

\* Boy E had attention and concentration difficulties – he became impulsive and restless, began using stopgaps (“Eee...”) – he was not able to read aloud for one minute (17 words), so his reading was interrupted and a researcher read the text to him. \*\*After four months the boy's concentration was better. He read 20 words in a minute (from 47 words he managed to read with his amount of concentration). After he had lost concentration (he declared, he does not want to read any more), a researcher continued reading.

The results show the progress in reading speed in all other students' performances.

**Table 2. Typology and number of mistakes.**

	Girl A		Girl B		Girl C		Boy D		Boy E	
	I	a4M	I	a4M	I	a4M	I	a4M	I	a4M
Typology and number of mistakes										
Adding sounds/parts of sounds	6	1	2	2	5	2	2	/	/	/
Adding words	1	3	/	/	2	/	4	2	2	1
Using wrong case	/	/	1	/	2	/	2	1	/	/
Omitting sounds	3	/	6	/	2	1	/	/	2	/
Omitting words	46	25	7	/	/	/	3	1	/	/
Substituting sounds	1	/	3	1	5	/	/	1	/	/
Substituting word order	/	/	/	/	/	/	1	/	/	/
Difficulties at reading functional words (pronomina, propositions)	8	6	10	4	9	5	8	8	3	3
Wrong word	1	1	2	3	5	1	1	1	2	1
<b>Mistakes - total</b>	<b>66</b>	<b>36</b>	31	10	30	9	21	14	9/17*	5/47**

\* Boy E made 9 mistakes from 17 words he managed to read in the first (I) test.

\*\* Boy E made 5 mistakes from 47 words he managed to read in the a4M test.

Table 2 shows a remarkable progress of all children with mild mental retardation. The number of mistakes decreased in the reading performance of all students. Girl A made the big-

gest number of mistakes in her first reading. In the second reading the number of omitted words was 50% lower. Girl C's (with Down syndrome) and girl B are follow girl A in the number of reading mistakes. Both of them made good progress, although one girl had additional problems with recalling words in the Slovene language since her mother tongue is Albanian. Reading performance of all students show the prevailing presence of following mistakes: adding sounds/parts of sounds, omitting sounds, substituting sounds and reading wrong words. None of students showed the competence of reading propositions (in, to, with...). Students A, B and C showed progress in this reading segment.

**Table 3. Reading rhythm.**

	Girl A		Girl B		Girl C		Boy D		Boy E*	
	I	a4M	I	a4M	I	a4M	I	a4M	I	a4M
Reading rhythm	1	2	1	2	1	2	1	1	1	1

1 – Disturbed regularly (overhasty rhythm, stops between words)  
2 – Regular (fluent reading)

In the first test all students showed arrhythmic, overhasty reading rhythm with plenty of stops between words. Even girl B's reading was quite fluent after four months. The researcher could not tell that she comes from a different language environment. The other girls also showed good progress. In the 2<sup>nd</sup> test, boy D still had an overhasty reading rhythm but he made much less stops between the words.

\* E's reading rhythm was evaluated on the basis of words which he was able to read.

**Table 4. Accurateness of reading performance.**

	Girl A		Girl B		Girl C		Boy D		Boy E*	
	I	a4M	I	a4M	I	a4M	a4M	P	I	a4M
Accurateness of reading	112	142	147	168	148	169	157	164	-	-

Accurateness of reading = total number of words – (minus) total number of mistakes.

\* No data, since he read only a small part of the text.

From all segments of reading performance the accurateness of reading seem to be the most problematic one. Nevertheless the second reading performance showed progress even in this part of reading competence.

**Table 5. Reading expression.**

	Girl A		Girl B		Girl C		Boy D		Boy E*	
	I	a4M	I	a4M	I	a4M	I	a4M	I	a4M
Reading expression	1	2	1	2	1	2	1	2	1	1

1 – Bad (punctuation mark not taken into account, incorrect accentuation)

2 – Average (punctuation mark in most cases taken into account, in most cases correct accentuation)

3 – Good (punctuation mark taken into account, correct accentuation)

\* From the words he managed to read, boy E showed bad reading expression. In the second reading, he made less incorrect accentuations.



In the test of initial reading competence all students showed bad reading expression – none of them took punctuation into account and accentuation of read words was often wrong. Second reading showed good progress. Students (with the exception of boy E) reached good levels of reading expression (from 32 punctuation signs they took into account: girl B 29, girl C 28, girl A 27, boy D 23). Also accentuation was mostly correct. Only boy E did not show any progress in the field of reading expression.

**Table 6. Reading comprehension.**

	Girl A		Girl B		Girl C		Boy D		Boy E*	
	l	a4M	l	a4M	l	a4M	l	a4M	l	a4M
Reading comprehension	3	5	1	4	1	2	4	7	1	5

\* Boy E – the comprehension of listening to researchers reading was assessed – the progress: 5 points

According to the key we defined for assessing the correctness of answers. Students could reach a maximum of 9 points. Table 6 shows that all students have difficulties with reading comprehension. But during the four-month experiment reading comprehension improved. The biggest progress was made by boy D (7 points), followed by girl A and girl B. Girl D showed less progress, which could be caused by Down syndrome.

## Discussion

The impact of children’s literature reception in the educational process, performed according to the rules and solutions of the adapted reception model of children’s literature didactics was remarkable. Children with mild mental retardation and language deficit, who participated in our experiment, have shown a significant progress in all levels of literacy: reading expression, reading rhythm, reading accurateness, reading speed (reading aloud and silent reading) and reading comprehension (while reading aloud and while reading silently).

That can be explained with the comparison of used didactic procedures with the demands which Allor et al. study (2010c) has exposed as being particularly important. The adapted reception model of children’s literature didactics has a high level of intensity. Didactic units were about 40 – 50 minutes in length and the intervention included behaviour interventional plans for students who had concentration difficulties. Such “level of intensity” is necessary to produce meaningful literacy growth. (Allor et al., 2010c). Also the researcher – teacher carefully planned activities according to the students’ skills and appropriate difficulty level. During the process the teacher carefully monitored students’ participation and changed the instruction/activity when he observed difficulties in attention and students performance. A third consideration for increasing intensity was ensuring high levels of motivation. The adaptive model of reception children’s literature didactics focuses, during the first phase of the teaching unit, on the motivation for dialogue between the reader and the selected text since the theoretical background of the model is reception aesthetics which defines the emergence of the literary text’s meaning as a productive overlapping of readers’ horizon of expectations and the meaning of the text. In the reception model of literature didactics, the reader is expected to understand only if textual clues can find the reflection in his mind, in his previous experience. According to this theory a researcher – teacher carefully prepared the motivational phase of the didactic unit and refreshed students’ memories on the relevant events from his life and/or from his previous reception experiences. The fourth demand Allor et al. study mentioned was that teaching practise should be meaningful to the student. Selected literary texts were presenting themes, relevant

and important to students' lives. The text structure was familiar, since mostly fairy tales which have a very stable and repetitive structure have been used. Difficulties, which could originate from unknown words and syntax, were solved with the adaption of the model- with non-verbal semiotic functions.

The impact of adaptive model of receptive children's literature didactic on reading skills of children with mild mental retardation is not coincidental. It can be explained with its high level of intensity, activities, planned according to the students' skills, it's appropriate difficulty level, high levels of motivation and teaching practise, meaningful to the student. Beside the in present study proven positive impact on mentally retarded children's literacy, some other important circumstances must not be overseen: The adapted model of children's literature didactics is using authentic literary works (and not simplified ones, as usual). This means, that real literature education is performed – literature education with all its positive influences on child's education and personal growth. The exposure to "real" literature makes him better to understand himself and the others, makes him tolerant toward different ones. And through the processes of inculturation and multicultural education a child wins on his personal growth as a member of society.

## Conclusions

The results of the research presented in this paper confirm the theoretical conclusion according to which children's literature, taught according to the rules of adapted receptive children's literature didactics, has an important impact on language and literacy progress of children with mild mental disabilities. This can be explained with the circumstance that the adapted model of receptive children's literature didactics is able to solve the problem of limited language acquisition in persons with mild mental retardation and makes relatively advanced use of language in children's literature with the use of non-language semiotic functions for communication with literary text and about the reception of the literary text. According to the adapted model of receptive children's literature didactics a teacher encourages the process of comprehension with supportive visual communication, using drama, drawing, dancing, music... – a set of communication paths a child with mild mental retardation and with a language deficit can use to understand meaning and also to express it. Using these methods, a child with a limited vocabulary and limited syntactical patterns gets the encouraging environment for learning more than the basic language knowledge and consequently reaches higher levels of all his language communicative skills: listening, speaking, reading and writing. In the frame of this general communicative skills the adapted model of receptive children's literature didactics has, as the presented preliminary results of the study foretell, a positive impact also on all in the study measured components of reading competence: on reading speed, number of reading mistakes, reading rhythm, accurateness of reading performance, reading expression and reading comprehension of children with mild mental retardation.

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