UNDERSTANDING L1 INSTRUCTIONAL TEXTS BY PRE-SCHOOL CHILDREN

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Abstract
The paper analyses the rate of acquisition of the lexis included in the instructional texts of teaching materials for the first grade among pre-school children population. The instructional text directly addresses the child, and its understanding is crucial for the completion of assignments given to the child. The sample comprised children, native speakers of Croatian, attending kindergartens in Zagreb and its surroundings. They have been tested with respect to their levels of acquisition of lexis typical of instructional texts in Croatian. The effect of the exposure to foreign language instruction on the understanding of the lexis of instructional texts was also considered. The results point towards the need to introduce goal-oriented language practices related to instructional texts while teaching very young children in the pre-primary period.

Key words: instructional text, early language acquisition, foreign language learning, pre-primary period

1. INTRODUCTION

The didactic text is the dominant medium through which children acquire new knowledge from the scientific, artistic, technical and all other worlds we wish to open for them through school education. Through directly addressing the students, the didactic text is formed into an instructional expression which aims to encourage students to perform a task in a particular cognitive activity. Understanding the expression of the didactic and instructional didactic texts is a prerequisite for the successful completion of school assignments and mastering the school content. Pre-school education of children should promote the understanding of the vocabulary that children will encounter at school, on the understanding of which their success shall depend. In the complex circumstances of a child's cognitive and language development at the line between pre-school and school age, there is a need for special attention on language development, especially lexical, so that the child could master communication in the mother tongue at the level set by the media of school education.

Children starting school are for the first time systematically faced with a new idiom (the standard Croatian language) and new functions of language (educational, scientific) that are realized, for the child, in a new functional style (scientific) of the Croatian language. The new idiom is in all linguistic components greatly different from the child's native speech, just as the new functional styles greatly differ from the conversational style the child mainly used until starting school. Additionally, a significant number of pre-school children are involved in early learning of a foreign language so the context of child language development becomes even more complex. The success of the child in performing the tasks that school places before them directly depends on the child's understanding of the language their school (teacher, textbook, other media) uses to address them. The child's language development is also under the influence of the lexis the child meets at school. How textbook language affects child language development, whether children's language and textbook language establish active communication, and how knowledge of a second language affects adopting native lexis are some questions set before us.

2. THE DIDACTIC INSTRUCTIONAL TEXT

Textual types are the subject of study of text linguistics – a linguistic branch that focuses on the analysis of linguistic units larger than sentences (Trask 2005:354). There is no single approach or criteria for the classification of language patterns in the classification of text types. Classifications of text types according to different criteria are possible, e.g. by function, by medium, by complexity of organization, by prevailing type of lexis... Another difficulty in classifying is that the actual texts rarely or never meet the characteristics of the ideal type of text. Actual texts usually include qualities of various types, so they can be multiply classified based on different criteria. It should be noted that the number of text classes is a dynamic category and it is not finite. Not only because of the fact that, as communication needs change, new types of texts are formed and old ones disappear, but also because of the variance and the combination of patterns of different types. Therefore, the system of text types is subject to constant changes (Ivanetić 2003:66).

One of the most accepted classifications, which uses the criterion of the communicative role of language and text, points out:

- descriptive texts (their function is to describe specific objects or situations)
- narrative texts (their function includes storytelling activities and events according to a certain sequential order)
- argumentative texts (with the function of evaluating certain ideas or beliefs as positive or negative)

Another known classification of text types is according to functional styles. Thus, literary texts may contain various forms of descriptive, narrative or argumentative texts. Poetic or literary texts, as well as those texts which evoke a world detachable from the real one, can be seen as separate from the text classes that bring knowledge of the real world, spread it and increase it, i.e., scientific texts. Within scientific texts it is possible to extract the didactic texts that do not increase knowledge about the real world, but transfer it to a specific group of recipients, those who learn (De Beaugrande, Dressler 2010:207).

Searle's classification of text types is based on the impact of words, i.e., the criterion is the speaker's (the author's) intention. Therefore, it is possible to single out five objectives that the speaker (or author) of the text can achieve (Ivanetić 2003:60):

1. to say how things are (assertive or informative texts)
2. to get someone to do something (directive, instructional, or indicative texts)
3. to commit one to do something (commissive texts)
4. to express feelings and attitudes (expressive texts)
5. to change the world (declarative texts)

All textbooks and textual school materials, intended precisely for the transfer of scientific, artistic, cultural, technical and other knowledge to students, are written in didactic text, a subtype of scientific text. As it is aimed at those who are learning, i.e. those who have no (previous) knowledge of specific areas which the didactic text indicates, this type of text is characterized by clarity, simplicity, the reduced use of metalexis and avoidance of low-frequency words.

Parts of the didactic text directly address the students, asking them to think, conclude, connect, solve, explain, draft, circle, highlight, single out, amend or through some other act confirm their understanding of the material.

According to Searle's classification of texts, the didactic text type would belong in the category of directive texts, intended to induce recipients to do something.

In the classification of text types in the Croatian language, based on Searle's classification, Nada Ivanetić calls these texts "directives" (Ivanetić 2003:71). Directives are intended to lead the addressee to perform an action, and the mental attitude of the sender is the wish for the addressee to do or not do
a certain action. Directives therefore activates or passivates addressees, which requires their cooperation. The author divides directives into two groups of text types:

- Text types whose basic function is to tell the addressee to do x, and the addressee is without the possibility of choice (e.g. orders, bills, house rules, regulations, statutes, the Constitution ...)

- Text types whose basic function is to tell the addressee to do x, but the addressee decides whether to do so (e.g. requests, notes of urgency, questionnaires, advertisements...)

As a subset of the second group of directives, the author also mentions text types with the function of issuing cognitive problems to the addressee (Ivanetić 2003:73). This group of text types would include didactic tasks, questions, and suggestions.

In Croatian didactic literature, the directive or instructional text is also referred to as the indicative text. The term indicative text is stated in the curriculum for high schools and middle schools and is thus present in all Croatian language textbooks in secondary schools. In the Curriculum of the Croatian Language for High Schools and the Curriculum of the Croatian Language for Vocational Schools on the website of the National Centre for the External Evaluation of Education (http://ncvvo.hr) indication (instruction) is defined as: "a type of text planning any conduct in the future ", and lists "administrative, technical, business, methodological and other instructions: verbs and verb forms of demanding, commanding, encouraging, and warning, as carriers of indicative (instructional) sentences. The linear relationship between sentences in the indicative text."

The instructional text includes texts of questions and tasks where the textbook directly addresses the student. Judging by the linguistic and stylistic features, this is a text written in a scientific style, objective and accurate, and in its content it brings instructions for performing certain actions. Furthermore, its particular grammatical structure is conditioned by its nature. As it gives precise instructions, requests, incentives or explanations how to do a task, this is a text saturated with verb forms. Imperatives and infinitives with modal verbs, as well as short and simple sentences are particularly frequent. In short, the qualities of an instructional text are:

- brevity
- use of imperatives
- omitting unnecessary words
- a chronological sequence of instructions

An instructional text aims to activate the student, encourage performing a specific action, which involves the student's compliance and cooperation. In order for students to perform what the text asks of them, they must understand the text. They have to understand each part of the text, i.e., the vocabulary the instructional didactic text uses to address students should be known.

Understanding the didactic text at the pre-school age depends on many factors, primarily on the cognitive and linguistic development characteristics of the individual, but also the child's overall linguistic knowledge and their linguistic environment. The subject of this paper is precisely to check the understanding of the didactic text in first grade textbooks, by pre-schoolers who are very soon expected to meet with such a text.

A detailed quantitative and qualitative analysis of primary school Croatian Language textbooks, conducted by Jadranka-Jajić Nemeth (Nemeth-Jajić 2007) showed that the texts where textbooks address the student show a focus on the student, the statements have a linguistic-stylistic form of incentives, mainly expressed through imperatives which deliver a clear direction (think... answer... exchange views... fill in...). There were also noticeable efforts to reduce the imperatives' commanding property using linguistic and stylistic methods such as: attempt this too... you can do this as well... if you do not understand...

These solutions are in line with modern methodological approaches and systems in Croatian Language classes (Težak 1996; Rosandić 2004; Bežen 2005) which share emphasis on the importance of the
active position of students in the classroom and the need to develop students' critical thinking and creative abilities.

But the question remains whether the child understands the words the textbook uses to address them, i.e., whether the textbooks meet certain language requirements of the Textbook Standard listed below - that the texts in the textbook allow for a systematic enrichment of the student's vocabulary by introducing new words while maintaining intelligibility.

3. FEATURES OF THE CHILD'S LANGUAGE DEVELOPMENT AT THE STAGE OF TRANSITION FROM KINDERGARTEN TO SCHOOL

The language development of children begins in the pre-natal period and actually lasts the whole life, even though the child masters the foundation, the basis of the language system, until the age of four. The pre-school period is the most intense period of language development, though with starting school this development is not interrupted, but rather, the language continues to evolve at all levels. Noun morphology is not yet fully adopted at the time they start school (Kuvač and Cvikić, 2003), the child has not yet established strong hierarchical relationships within lexical categories (Kuvač and Mustapić, 2003), has difficulty in understanding the relationship between lexemes of synonymous, antonymous or homonymous structure (Vancaš and Kovačević, 1999), while the understanding of conveyed meaning and abstraction shall appear much further at school age.

All this suggests that the linguistic abilities of the child at the stage of transition from kindergarten to school are in development, and the very things that the child is offered at school and the way they are presented to the child shall largely determine their linguistic development. It is therefore important that the child does not encounter barriers of misunderstanding of the language which the textbook uses to address them, but that the language has a stimulating effect on the child's language development. As this paper deals with the understanding and adoption of indicative lexemes a child faces in school textbooks we shall list the basic characteristics of children's lexical development.

3.1. Lexical development of the child until school age

Lexical development is a complex process and is inseparable from cognitive development. Understanding of words precedes their pronunciation, but the relationship between the understanding and the use of words is not always easy to establish because children also use words they do not know the right or the full meaning of. In order to be able to say the child knows a word, it is necessary for the child to adopt the word's expression, content, and proper use, however, individually, there are various levels of adoption and use of certain words. The vocabulary range, along with everything mentioned above, also depends on the environment in which a child grows up, on the amount the environment stimulates the child's vocabulary development. We know that the average six-year-old's vocabulary is about 10 000 words, it is doubled by the third grade and tripled by the sixth. (Anglin, 2003).

Simultaneously with the lexical development, there is also the morphological and syntactical development, and together they comprise the child's level of language acquisition. It should be noted that children do not adopt certain language phenomena until starting school; understanding of conveyed meaning, metaphorical expressions, riddles, homonymy... (Kuvač, Vancaš, 2002) It is surprising, then, that one of the current first grade textbooks gives the first graders a task to "spot the odd one out"...

All of the above should be followed when creating textbooks, because if tasks which are not at the child's level of development are put in front of the child, we shall slow down their linguistic development and cause them difficulties in speaking, writing and reading.
3.2. **Multilingualism at the pre-school age**

Children learn their first language spontaneously with the aim of establishing communication and socialization in the environment and the general community. (Pavličević-Franić, 2005) The child adopts the first language, the mother tongue, within the family, and it is usually, but not always, the regional, native speech. The communication practice in the early stage of adoption of the Croatian language shows that, with an increasing number of children, the mother tongue differs from the environmental, and with entering educational institutions (kindergartens and schools) there forms an interlingual field (Pavličević-Franić 2006) of overlapping linguistic elements from the individual linguistic idiom learned at home (J1), the environmental idiom (J2), the standard Croatian language (J3) and, in a number of children, a foreign language (J4).

The interaction of the system the child uses will cause the child's attempts to use the already acquired linguistic knowledge, so the characteristics of one language will transfer to the other, and therefore, tentatively speaking, fill in the gaps. This transfer of elements from one system to another can be stimulating, but also aggravating.

Will the effect of the interlingual field stimulate the understanding and adoption of many new lexemes of the standard language when starting school, or will the overlapping of a multitude of systems hinder a child's language development? The conducted research specifically addressed the impact of foreign language learning on the understanding of the vocabulary of the standard Croatian language represented in the didactic and instructional text of first grade textbooks.

4. **THE TEXTBOOK IN THE CONTEXT OF THE CHILD'S LANGUAGE DEVELOPMENT**

We live in a time of great diversity of media and children are involved in the media world very early. Although schools are increasingly participating in it, i.e., includes new media in the transfer of knowledge, books (textbooks) remain the main teaching tool. The current Croatian Act on Primary and Secondary Schools Textbooks in Article 2 states: *The textbook is the basic teaching tool and source of knowledge for achieving the educational goals established in the Curriculum.*

The textbook is a source of knowledge in which the teacher participates in its transfer to the participating students, and the teacher's role in explicating, clarifying, explaining and interpreting is very influential and important. However, the textbook must also demonstrate a high level of efficiency in independent student work. Working with the textbook independently is necessary and very important for developing independent learning skills. It develops the cognitive skills of organization and elaboration of the text, storing information in long-term memory, and critical thinking skills (Psychology of Education 2003)

The Textbook Standard, a document issued by the Croatian Ministry of Science and Education in 2006, states the seventh, eighth and ninth provision of language requirements:

1. *Textbook texts, especially examples, are adapted to the foreknowledge and cognitive abilities of students, their age and the world around them, they are well laid out and clear.*

2. *The language in the textbooks is in accordance with the general psycholinguistic principles in relation to the semantic, syntactic and morphological complexity and their interrelationship.*

3. *Textbook texts allow for the systematic enrichment of the student's vocabulary by introducing new words while maintaining intelligibility.*

Binding for all textbooks in Croatia, this document clearly addresses the need to adapt the language of textbooks to the developmental age of the child, in terms of respect for the psycholinguistic qualities of the child's age when choosing the textbook lexis.
4.1. Language of textbooks

The term textbook is understood and used for all parts (workbooks, problem books, worksheets, textbooks ...) of the branching textbooks that dominate contemporary Croatian schools. The term textbook is also defined thusly in the Act on Primary and Secondary Schools Textbooks (Official Gazette 2006). So, speaking of the textbook lexis we mean the lexis of all school books which the student encounters in classes. The Textbook lexis consists of all the texts in the textbook: text templates, original non-literary and literary texts, metatexts, explanatory texts, interpretations, etc., and the instructional text with which the textbook establishes direct communication with the student. The latter shall be the subject of interest of this paper.

The language of textbooks must first be observed within the functional and stylistic stratification of the Croatian language. The textbook style of expression enters the system of the scientific functional style as its sub-style (Silić, 2006). As a sub-style of the scientific style, it inherits the following characteristics: precise expression, clear terminology, accurate explanations, objectivity. It should be added that the textbook style has its own peculiarities arising from its use; it is intended for learning and for the student, and its appropriateness to the students' age as well as to the level of their language experience and knowledge is crucial. The appropriateness of the textbook language to the age of students should be reflected upon in collaboration with psychology and psycholinguistics (Bežen, 2004) while taking into account the psychological and language-developmental characteristics of the age for which the textbook is intended. Therefore, the textbook should, in its linguistic expression, unite the characteristics of the corresponding linguistic-functional style and the psycholinguistic developmental age for which it is intended. Or, the textbook language and style, especially at the primary school stage, require extreme clarity and simplicity, a passability, which will enable the student's independent reading and comprehension. (Visinko, 2006).


5.1. Research problems

The research examined the understanding of the didactic instructional text and high-frequency words of the didactic text from Croatian Language, Science & Social Studies, and Mathematics textbooks for the first year of primary school in pre-school children in the wider Zagreb area and the impact of a foreign language on the comprehension. Here we have set the following research problems:

1. Do the respondents understand each word, i.e., can they join it with its correct meaning?
2. Does learning a foreign language influence understanding the suggested words?
3. Does the understanding of words in children who are learning a foreign language depend on the duration of its learning?

5.2. Hypotheses

In accordance with the research problems we have set the following hypotheses:

1. The respondents understand all suggested words, i.e., they are able to join them with their correct meaning.
2. Learning a foreign language has a positive effect on the comprehension of the suggested words.
3. Among those who have studied a foreign language, there is a significant difference in the comprehension of words with regard to the duration of foreign language learning.
5.3. The aim of the research

The research was conducted in order to review the state of understanding of the didactic instructional text and frequent words in the didactic text from Croatian Language, Mathematics and Science & Social Studies textbooks for the first year of primary school in pre-school children in the wider Zagreb area, as well as to check the impact of early foreign language learning on comprehending the instructional vocabulary of the Croatian language. The chosen words of the instructional vocabulary, as well as the frequent words of the didactic text are of crucial importance for understanding the very tasks aimed at adopting, practicing and testing in textbooks, and thus at the success of students in mastering the curriculum.

5.4. Research methodology

5.4.1. The respondents

The study included 105 pre-school children (about to start school in the current year) from kindergartens in the wider Zagreb area, of which 56 boys (53.3%) and 49 girls (46.7%). 57 children did not learn a foreign language, which amounts to 54.3%, 24 children, which amounts to 22.9%, studied it for one year, and 24 children (22.9%) for two years and longer.

5.4.2. The material

Twenty-nine words (vocabulary of the instructional text and frequent words in the didactic text from Croatian Language, Mathematics and Science & Social Studies textbooks for the first year of primary school).

5.4.3. Instruments of research

Questionnaire with a list of words (29 words of instructional vocabulary and frequent words of the textbooks’ didactic text).

5.4.4. Data processing

The obtained data were processed by statistical methods of frequency measurement and analysis of variance.

5.5. Circumstances of the research

The study was conducted in kindergartens in the city of Zagreb and the wider Zagreb area. The children were examined orally and individually.

6. THE RESULTS AND THEIR INTERPRETATION

After the research, we came up with the following results:

Based on the survey and the listed data, we can conclude that many of the respondents did not understand the proposed words and could not join them with their meaning.

Below are the numbers and percentages of respondents who did not understand the proposed words:

Vocabulary of the instructional didactic text:

- underline - 52 respondents, 49.5%
- explain - 47 respondents, 44.8%
- strike - 41 respondents, 39.0%
- sort - 29 respondents, 27.6%
- observe - 21 respondents, 20.0%
- spot - 19 respondents, 18.1%
- cross - 18 respondents, 17.1%
- list - 17 respondents, 16.2%
- opposite - 17 respondents, 16.2%
- describe - 15 respondents, 14.3%
- name - 14 respondents, 13.3%
- total - nine respondents, 8.6%
- missing - 8 respondents, 7.6%
- circle - 6 respondents, 5.7%

Frequent words in the didactic text:
- homeland - 95 respondents, 90.5%
- rug - 71 respondents, 67.6%
- skill - 62 respondents, 59.0%
- iron - 58 respondents, 55.2%
- settlement - 52 respondents, 49.5%
- threatens - 38 respondents, 36.2%
- foal - 36 respondents, 34.3%
- fawn - 35 respondents, 33.3%
- meal - 26 respondents, 24.8%
- cubs - 26 respondents, 24.8%
- during - 26 respondents, 24.8%
- classroom - 17 respondents, 16.2%
- crumb - 9 respondents, 8.6%
- shod - 7 respondents, 6.7%
- clad - 6 patients, 5.7%

From the above, it is evident that a very high percentage of children of school age do not understand neither the basic words of the instructional vocabulary which they will meet in a few months at school, nor the frequent words of the didactic text associated with the instructional text, i.e. with the problems that the didactic instructional text sets and students need to solve, whether at school, for homework or in tests. At the instructional text vocabulary, in 11 words out of 14 the incomprehension is greater than 10%; in frequent words of the didactic text, for 3 out of 15 words the incomprehension is less than 10%. If in the future, in one classroom, 10% of children do not understand the didactic vocabulary, it can be assumed that the teacher and lesson preparation will require a significantly different approach.

Furthermore, in the attempt to determine the influence of early learning of foreign languages on the comprehension of the didactic and instructional text, it was shown that there was a statistically significant difference in comprehension between the students who did not learn a foreign language and those who did learn it in three words: meal, cubs and threatens.
The difference is reflected in the fact that children who learn a foreign language understand these words more often. That is, as shown in the tables, children who do not learn a foreign language, significantly more often fail to understand the listed words.
Overall, we noticed the positive effect of learning a foreign language on understanding all the words. Exposure to foreign language learning has a positive effect on comprehending both the didactic and the instructional text in the analyzed textbooks.

It follows that hypothesis #1 is rejected - a large number of students do not understand the words.

Hypothesis #2 is confirmed - the students who are learning a foreign language often understand the listed words, as well as hypothesis #3, because there was no statistically significant difference in the understanding of words between children who have been learning a foreign language with respect to the duration of learning.
6. CONCLUSION

Based on theoretical and empirical research we can conclude that the understanding of the didactic and the instructional text, i.e. the vocabulary that appears in the text, was much lower than expected, or less than desirable for quality learning in the first grade of primary school.

In understanding the three words there appeared a statistically significant difference regarding learning a foreign language. In a further logical sequence this brings us to the following considerations: obviously the cause of any difficulties in learning or acquisition of knowledge in schools, and poor student achievement, expressed in numerical grades, except in individual objective difficulties of individual students, and the diversity of methodological approaches of teachers, partly lies in the sparse vocabulary and insufficient understanding of both the didactic and the instructional text of the Croatian language. Early foreign language learning has a positive impact on the ability to understand the vocabulary of both the instructional and the didactic text.

We can take the example of the increasing number of children with difficulty in learning to read (according to the Croatian Dyslexia Association, Croatia has over 15% of children with dyslexia). One of the causes of difficulties in reading is a sparse vocabulary.

The causes of this situation can be numerous, however, since the tested children were included in the regular kindergarten program, it is expected that the work on enriching vocabulary is implemented exactly with these children. Even more surprising are the results obtained, which, in any case, indicate the need for rethinking educational practices, forms of work and methodological models in kindergartens. Given the current situation, educators and teachers, first and foremost, should be referred to the need to enrich children's vocabulary, and this should be carried out systematically, specifically and functionally.

For further research we leave the analysis of the didactic and the instructional text in textbooks. In fact, its understanding depends on all the work specified and explained in the paper, but also on the structure of the text itself. The didactic text alone would have to respect the cognitive and linguistic development characteristics of the ages of children it addresses, but not stray far from the fundamental features of the didactic and the instructional text, namely: clarity, brevity and the use of high-frequency words. The remaining question is whether the didactic, and especially instructional texts which primary school textbooks in the Republic of Croatia use to address the students comply with the mentioned guidelines.

Bibliography


