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THE EFFECT OF EMOTIOGENIC ENVIRONMENT ON THE
READING BY FIRST-FORMERS

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Abstract

The present research is devoted to the psycholinguistic study of semantic reading formation and its interrelations with emotiogenic environment among first-formers. Twenty-three first-formers (aged 7.5 through 8.5; 13 boys and 10 girls) take part in the study. We employ Granovskaya's projective method of psychological testing "I am happy" to find out basic characteristics of emotiogenic environment of children, standard diagnostic text for the first form to determine the reading time and completeness of the text reproduction and Thorndyke's propositional analysis of the text and its reproduction. The correlation between all the basic characteristics of semantic reading (such as: the quantity of mistakes, time of reading, and completeness of retelling) is assessed. A personal experience of the first-former, such as family, communication and the problems of the subject's environment, is also connected with the reading development as a complex structure. Integrative propositional analysis of the text reproduction shows that the level and type of correlation between semantic reading and the factors of emotiogenic environment (such as: a family factor, factor of activity and factor of difference from learning or game activity) depend on the level of proposition. Thus, the structure of the main interrelations of semantic reading reveals itself. The future research will be connected with the effect of emotiogenic environment on a critical period of semantic readings development.

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Keywords: Semantic reading, first grader, emotional arousal environment, propositional analysis, time of reading.



1. Introduction

Nowadays, any type of a human being socialization involves the use of semantic reading skills. Semantic reading as a type of activity is connected with the structural reconstruction of the text and based on its comprehension (Leont'ev, 2003). At the same time, it is necessary to point out the nonlinear character and complex nature of reading and its relation to the individual's characteristics including personal experience. The individual experience of a first-former is defined in particular by an emotive environment. During the formation of semantic reading the child sequentially passes from an emotional sensory perception of the text to an emotional semantic reading, at the same time, relying on his own emotional experience. (Rayner & Pollatsek, 1989).

During primary school the child develops the skills which allow him to create semantic units in the alphabetic sequence. On the one hand, these units are language units. And, on the other hand, they are images of the described life situation. The system-genetic concept of educational activity (Nizhegorodtseva, 2001) employs the integral index of the development of semantic reading for the first-former as the indicator of his learning ability at school in the future.

2. Problem Statement

First of all, the formation of semantic reading skills at elementary school is aimed at the development of a cognitive perception and comprehension. At the same time, the comprehension of the text is impossible without any understanding of its emotional component and depends on the emotional personal experience made by the emotive environment.

3. Research Questions

Are there any interrelations between semantic reading skills and emotive environment characteristics among first-formers, and what is the nature of these relations?

4. Purpose of the Study

The primary goal of the present research is to identify the structure of the major interrelations between the semantic reading including its propositional structure and emotiogenic environment of the first-formers.

5. Research Methods

5.1. Subjects (cases)

Twenty- three first-formers (13 boys and 10 girls) at the age of 7.5 to 8.5 participated in the study. The investigation was carried out in April after the end of the ABC book reading school course during the process of a psychological and pedagogical diagnostic of a reader's skills development in the first form. The parents of the participants gave the ethic approval before the beginning of our research.

5.2. Procedure

The projective psychological method "I am happy" (Nicol'skaya & Granovskaya, 2000) was used for the identification of the emotive factors having an influence on the first-formers. According to the method the children were asked to draw themselves in situations when, in their opinion, they had feelings of happiness "I am happy" or misfortunes "I am unhappy". The drawings and children's comments on them were processed for the identification of basic emotive factors. They were further divided into several groups: learning, game, family, nature, communication, health, activity, subject environment and others according to the previously made research (Lomtatidze, & Alekseeva, 2016).

The standard diagnostic text «Smile» (91 words) for the first form (Bedenko, 2015) was used to determine the reading time and quantity of mistakes. The completeness of the text reproduction was evaluated by the method of expert assessment by means of an active involvement of primary school teachers. Five primary school teachers took part in the expert assessment to determine the reading time, quantity of mistakes and completeness of the text reproduction.

The Thorndyke's propositional analysis (Thorndyke, 1977) of the text and its retelling by the first-formers was carried out to determine the text's propositional structure and its reproducibility on each selected level of proposition. The propositional analysis included the structural-semantic analysis of the text (Solomon, & Hindy, 2015). From this point of view, the proposition was a text unit of meaning. The propositions of a higher level were more important and supported by the minor units of meaning of lower levels.

The obtained data were statistically processed to identify the structure of the main interrelations between the semantic reading and reproducibility of its propositional structure and emotional arousal environment of the first graders. Correlation and Factor analysis was made by Statistica 6.0.

6. Findings

The structural-functional analysis on the basis of intercorrelational matrices of the studied characteristics is carried out during the data processing ($r > r_{kr}$, $p < 0.05$).

At the first stage of processing the structure of the interrelations between the main features of the first-former's semantic reading and emotiogenic environment of the examinees is shown (Figure 1).

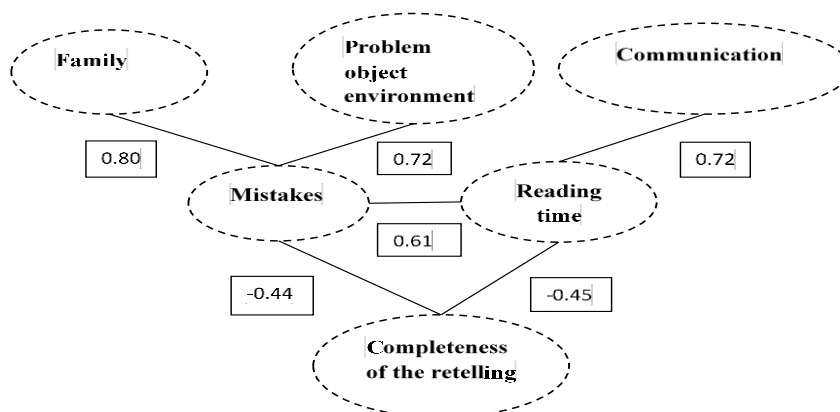


Figure 01. The structure of interrelation between the studied characteristics of the semantic reading and emotiogenic environment of the first-formers ($r > r_{kr}$, $p < 0.05$).

Thus, the development of the basic characteristics of semantic reading as a cognitive process is, on the one hand, caused by maturing of the relevant brain structures, and, on the other hand, connected with the factors of social environment: family and communication, and activity of the child in the object environment.

At the second stage, the interrelations between the indices of reproducibility of the propositional structure of the text in general and on separate levels and the features of the first-formers' emotiogenic environment are estimated (Figure 02).

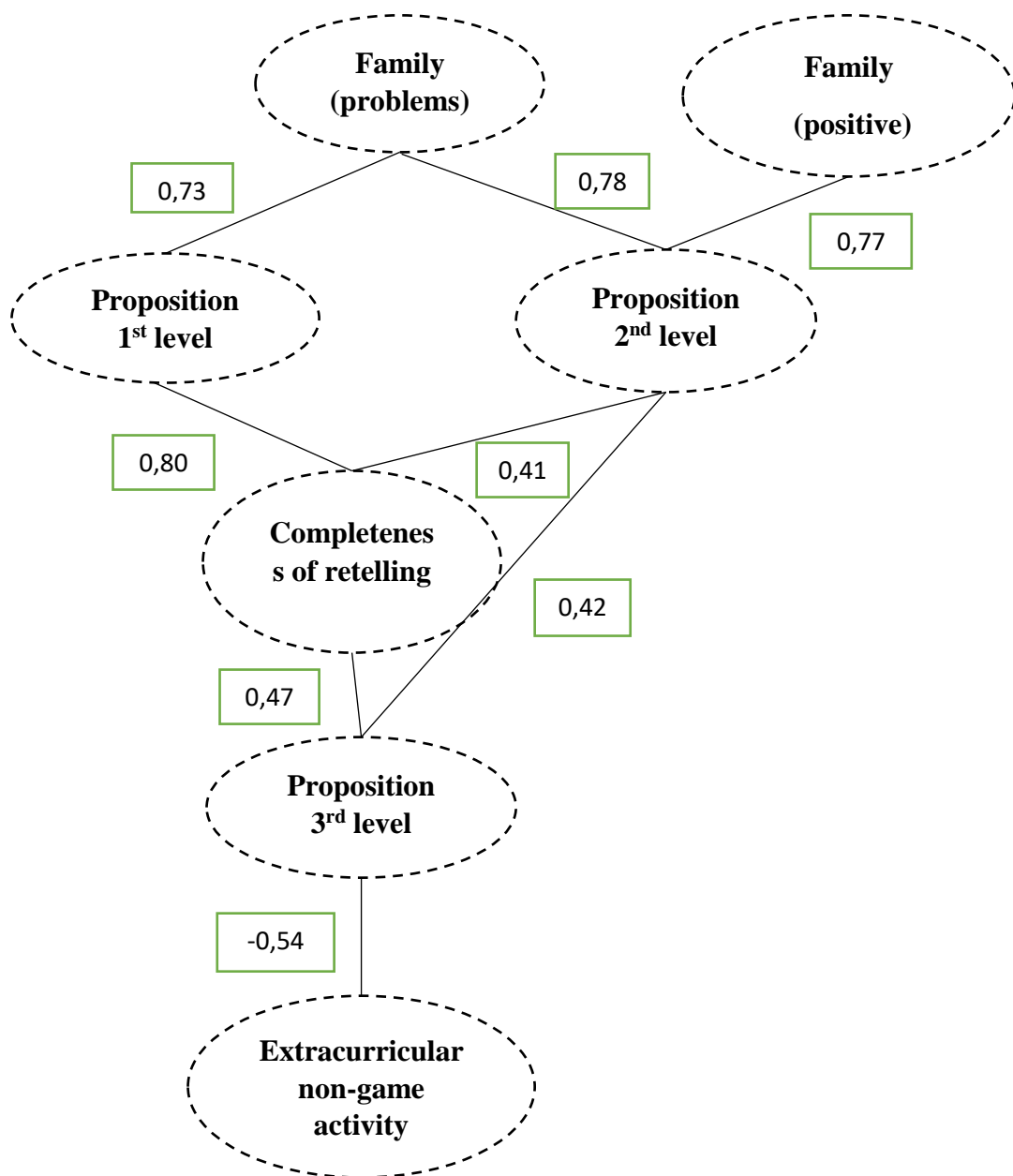


Figure 02. The structure of interrelation between the reproducibility of propositional structure of the text and emotiogenic environment of first graders, ($r > r_{cr}$, $p < 0.05$)

The core of this structure is the interrelations between basic characteristics of semantic reading which can indicate their interconditionality by the age aspect of relevant cognitive brain structures maturing. The comparison of 7 and 8 year-old children on the basic characteristics of reading also confirms that their reading time significantly differs ($U < U_{kr}$, $p < 0.05$). At the same time, there is a direct correlation between the quantity of mistakes and the time of reading, and the inverse correlation between the completeness of retelling and other characteristics of reading. Thus, the difficulties of text retelling by the first-formers in the part of a slow reading and large amount of mistakes are interdependent.

The personal experience of the first-formers also plays an important role in the development of semantic reading skills. Family factor and a problem object environment correlate directly with the quantity of mistakes during retelling. The factor of communication is directly correlated with the reading time of the first-former. The completeness of retelling determined by the method of expert assessment has no direct connections with the characteristics of the emotogenic environment of the examinees.

It should be noted that the expert assessment of the completeness of retelling did not coincide completely with the total score of reproducibility of the text propositions. Nevertheless, these characteristics show a similar tendency of change ($r > r_{cr}$, $p < 0.05$). At the same time, the expert assessment was the most similar to the reproducibility of propositions of the first level. It could indicate that elementary school teachers mainly estimate and, perhaps, as a result, develop the cognitive processes connected with the memorization and reproduction of this level of propositions. The interrelations of reproducibility of the second and third level of propositions (the fourth level of propositions was not reproduced by the pupils) and expert assessment are similar and almost as twice as lower than the first level propositions correlation. Besides, the reproducibility of proposition of the second and third level is directly connected with each other, but disconnected with reproducibility of propositions of the first level. Seemingly, it evidences the existence of the two parallel cognitive processes of processing and representation of information, which are not directly connected with each other. It also confirms that the reproducibility of the second level propositions differs significantly ($U < U_{kr}$, $p < 0.05$) in 7-8 year-old children. In this case, apparently, the first type of processing of text information is closer to the semantic reading, as it has been described in most of the studies. The second process allows to perceive and reproduce the contextual information surrounding and supplementing the main semantic level.

The degree and type of interrelation between the personal experience of the first graders and proposition reproduction of the text also depends on the proposition level. So, the propositions of the first and second levels are connected with family factor, and the propositions of the third level are connected with the factor of activity, and the both differ from educational or game activities. If the sphere of the child interests and an emotional attraction lies within the family, he or she shows the best indicators of reproduction of upper-level propositions. In case, the orientation of activity of the child is out of the educational or game orientation traditionally offered by school, his or her indices of reproducibility of proposition of the third level decrease. It can be bound to both the poor motivation of the pupil and poor concentration necessary for the memorization and reproduction of lower propositions.

Thus, the propositional analysis of text reproduction shows that the processing and reproduction of text information by the first-formers probably realizes in several cognitive channels which are not directly connected with each other. At the same time, the reproducibility of propositions of the first and

second level is directly bound to the family factor, and the third level to the factor of extracurricular non-game activity.

So, the hypothesis about the connections between semantic reading and its emotiogenic environment among first-formers is partially confirmed. However, it still needs the extension to compare our results with other ages to determine critical points in the development of semantic reading

7. Conclusion

Semantic reading as a cognitive process has its own structure and stages of development. The sensitive period of its development falls on the elementary school. This process is bound both to age factor and emotiogenic environment factors connected with the personal experience of the child: extracurricular non-game activity, communication, family and object environment. The completeness of retelling estimated by means of expert assessment and method of the propositional analysis also has its own features of interrelations with the studied characteristics of the first-former's personal experience. At the same time, the expert assessment of the quality of semantic reading by teachers mainly takes into account the reproducibility of propositions of the first level.

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