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Text Comprehension Processes in Student Learning within the Context of the Subject-Analytical Approach

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Abstract

Introduction. The scientific novelty of the research lies in the description of the impact of using the subject-analytical approach on the development of the level of text comprehension. The aim of the research is to evaluate the development of comprehension levels in students trained in text processing. **Methods.** The study involved 120 students of the Far Eastern State Medical University, 60 of whom were in the experimental group, 60 in the control group. Specially organized activities were carried out to teach the experimental group students methods of text comprehension, and then the differences between the groups in the level of text comprehension were assessed. For a qualitative analysis of the dynamics of the development of skills related to text comprehension, a set of levels of text comprehension developed by V.P. Zinchenko was used. **Results.** The students in the experimental group showed higher skills and abilities necessary for working with text than the students in the control group. During the study, the psychological structure of teaching students to understand according to V.P. Zinchenko's levels of comprehension was identified: natural, cultural, and creative (object of development, necessary skills, structural elements, cognitive processes corresponding to each level of comprehension, focus of text comprehension methods). For each skill, the necessary abilities and corresponding text comprehension methods were determined. **Discussion.** It was found that the subject-analytical approach, along with specially organized training in text comprehension methods, leads to quantitative and qualitative changes in comprehension among students.

Keywords

text comprehension, subject-analytical approach, analytical skills, holistic skills, levels of comprehension

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Introduction

The rapidly advancing scientific and technological progress currently leads to a constant complication of the world's structure, interactions among people, and various processes and phenomena. Each year, it becomes increasingly difficult for individuals to perceive information, keep pace with processing, and structure the ever-increasing volumes of data. Consequently, there arises a need for training in new skills for processing and analyzing information, as well as additional education in text comprehension skills. The issues of processing and understanding information are unified around the subject-analytical approach in psychology, a term formulated by V.V. Znakov. The subjective component is viewed as a manifestation of the internal conditions of a person's cognition of the world, primarily their own experience (Foucault, 2011). The subjective component represents the perception of external information through the prism of one's own internal value system, facilitated by the execution of purposeful activities and the transition from one stage to another (Kintsch, 1988; Kharlamenkova, 2010). T.P. Voitenko examines the subjective component from a gnoseological perspective as "the free will of a person directing their activity" (Voitenko, 2017). V.V. Znakov presents subjectivity as "the totality of internal conditions for the development of understanding...: external causes act, refracted through internal conditions, which form the basis of psychological development" (Znakov, 2015; Znakov, 2023a). V.V. Znakov considers subjectivity within the framework of the sociocultural approach, where complete objectivity is unattainable due to differing life attitudes, values, and norms among individuals (Znakov, 2023b). In all descriptions of the subjective component, there is an emphasis on the perception of external information and new knowledge through internal conditions: one's own value system and the staged nature of perception, as well as personal experience and/or one's own psychological developmental capabilities.

Components of the Subject-Analytical Approach

The analytical component of the subject-analytical approach involves identifying the distinctive features, properties, and phenomena of the studied phenomenon or process. M.S. Guseletseva emphasizes the necessity of analysis, which is justified by the subsequent synthesis of individual parts into a unified whole to achieve a deeper understanding of the text and to uncover new meanings (Guseletseva, 2009). This process may include filtering out insignificant data that neither contribute to understanding the text nor carry any semantic load. V.V. Znakov also highlights this point, noting that the process of studying a particular research subject requires clarity, which may sometimes lead to its simplification (Znakov, 2015). Znakov considers the analytical component within the framework of the cognitive approach to research on understanding, where researchers strive to "correlate and compare the actual state of affairs with what is potentially permissible and therefore possible" (Znakov, 2023b).

Similarly, M.S. Guseletseva (2019) underscores the importance of employing various analytical strategies, which involve identifying a specific set of methods for solving problems and tasks to achieve optimal results (Guseletseva, 2019). This indicates that the analytical component is not only about breaking down perceived information into separate objects, processes, or phenomena for a deeper understanding but also about searching for appropriate ways of interpreting a particular text.

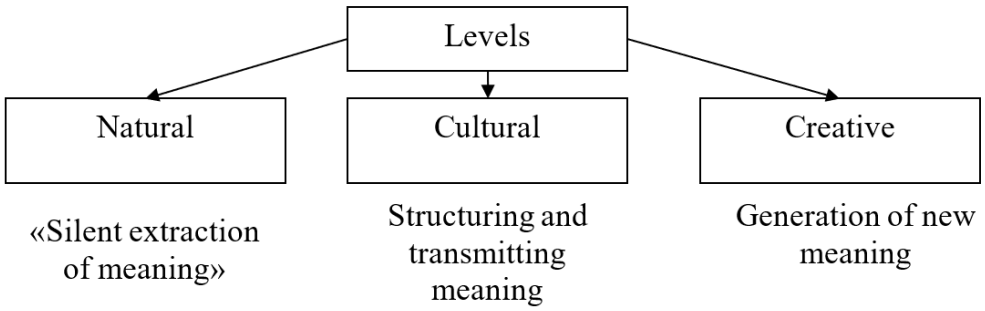
The subject-analytical approach views the process of understanding as the analysis of a text, its division into smaller units for detailed examination, and the subsequent integration of these units into a holistic picture that can be incorporated into one's worldview. This process requires individuals to possess well-developed analytical and holistic skills at a sufficiently high level. Analytical skills refer to the ability to identify individual elements, concepts, and phenomena within a stream of information for subsequent processing, analysis, and incorporation into one's system of values. In contrast, holistic skills enable the evaluation of a situation or information as a unified whole. These skills require individuals to exhibit high cognitive speed with minimal conscious effort (Evans, 2008; Tkachenko & Khukhlaev, 2022). Analytical and holistic skills reflect a person's ability to analyze and synthesize incoming information.

Levels of Understanding in the Educational Process

Based on the conclusions that understanding a text, according to the subject-analytical approach, involves selecting a set of specific methods, it is necessary to distinguish levels of text understanding to determine concrete ways to achieve them. Within the framework of our study, it is important to consider the work of V.P. Zinchenko, who notes that the holistic process of understanding may "include individual acts" that can be grouped into levels (Zinchenko, 2014).

The levels of understanding in the educational process, as identified by V. P. Zinchenko (2014), are presented in Figure 1.

Figure 1
Level of text comprehension according to V.P. Zinchenko



Natural understanding occurs when a learner is able to extract meaning from a text. This level is achieved when it is confirmed through the individual's behavior and actions. Despite its name, this type of understanding is not innate. It involves subject-oriented understanding, requiring analytical skills and unconscious inferences (Calet, López-Reyes & Jiménez-Fernández, 2020). Natural understanding is necessarily tied to a person's actions and cannot exist independently. This type of understanding can be characterized as "understanding through practice," as it encompasses empirical acts such as perceiving signs (letters, words, shapes, colors) and differentiating between familiar and unfamiliar information. Recognizing unfamiliar information is essential for subsequent analysis and synthesis into one's worldview. Kirchhoff & Glaesser (2023) emphasized that the process of understanding is more effective when attention is paid to the meanings of individual words or formulations within the context of the text, even if they contradict prior experience. Seyidova (2023) also highlights the importance of understanding the connection between a word and its context when working with a text. In her research, she concludes that the influence of context on the semantics of a word enhances the process of communication between the reader and the author (Seyidova, 2023). If one begins working with a text by generalizing or relying on pre-existing knowledge, this can distort the meaning of the text and lead to misunderstanding.

The cultural level of understanding involves not only extracting meaning from a text but also its symbolic representation, enabling the possibility of its presentation. The completeness and adequacy of understanding at this level are measured by the degree to which the reproduced text corresponds to the original. However, the application of meaning in action by the learner may not occur. Consequently, cultural understanding

can result in a mechanical repetition of the meaning presented in the text, achieved through holistic skills. The empirical acts remain the same, but understanding the meaning within the context of the text becomes possible.

The third level of understanding identified by V.P. Zinchenko is creative understanding. In addition to incorporating the characteristics of the first two levels, it necessarily involves the emergence of a new meaning or a new symbolic form for representing the text. In the educational environment, assessing creative understanding of a text requires teachers to have additional capabilities to interpret their students' creative texts, both oral and written (Zinchenko, 2014). At this level, the meaning of the text is fully understood within the context presented by the author, along with an active-dialogical understanding. This implies a kind of debate between the reader and the author, resulting in the generation of a unique solution to the problem posed. Accordingly, holistic skills play a key role at this stage.

For understanding to be effective, regardless of its type, it is essential to preserve the subject matter and meaning of the text. Subject matter is necessarily embedded in action and imagery, which are characteristic of natural and creative understanding. It is more challenging in the case of cultural understanding, as there is a risk of error during the verbalization of the text's meaning.

If the learning process focuses not merely on memorization but also on understanding the text, the effectiveness of education increases. Particularly important are disciplines that not only convey theoretical aspects of various scientific fields but also facilitate the comprehension of acquired information.

Levels of Development in Understanding Educational Texts

Based on the analysis of the components of V.V. Znakov's subject-analytical approach and V.P. Zinchenko's classification of understanding types, we identified levels of text understanding and their corresponding structural elements (Table 1).

Table 1
Levels of Development in Understanding Educational Texts

Structural Components	Levels of Understanding		
	Natural	Cultural	Creative
Object of Development	Definitions	phenomena, processes	Inner meaning
Necessary Skills	Analytical	Holistic	Holistic

Structural Components	Levels of Understanding		
	Natural	Cultural	Creative
Analytical	Definitions, phenomena, processes	The meaning of the text, its practical application	New meaning of the text, its new symbolic form
Structural Elements	Definitions, phenomena, processes	Text meaning and its practical application	New meaning of the text, its new symbolic form
Cognitive Processes	Recognition	Reproduction, meaningful understanding	Internal understanding, emergence of new meanings
Orientation of Comprehension Methods	Simplification	Visualization	Explanation

As shown in Table 1, the process of understanding educational texts can be divided into three levels: natural, cultural, and creative.

At the natural level, students are introduced to definitions and engage in recognition. The process of understanding may not be fully realized at this stage, but recognition and differentiation occur. To move beyond this stage, methods of understanding should focus on simplifying key definitions, phenomena, and processes to facilitate memorization, which can prove challenging even for experienced readers (Tsukerman & Kleshch, 2017).

At the cultural level, the definitions, phenomena, and processes identified in the previous stage are integrated into a holistic picture. Connections between these elements are established, and their practical application emerges. Understanding methods at this stage should help students visualize the knowledge acquired at the natural level by applying it to their life experiences and integrating it into their existing knowledge system.

The creative level is characterized by internal understanding, marked by the emergence of new meanings that are not explicitly presented in the text. At this stage, learners engage in introspection, leading to reflection and self-understanding (Mosunova, 2019; Krasnykh, 2023). Students interpret the text in terms of its relevance to their own needs, how it has influenced their perception, and how it has shaped their worldview. This level demonstrates that the student has truly understood the information presented.

In our study, we developed a system of indicators necessary for productive engagement with texts. Corresponding methods of understanding were selected to support the development of these indicators (Table 2).

Table 2
Methods of Understanding Texts

Levels of Understanding	Understanding Skills	Indicators of Understanding (Required Abilities)	Methods of Text Comprehension
Natural	Analytical	Structuring information	Illustrative text plan
			Oral reproduction of secondary text
			Classification of familiar and unfamiliar information
			Marking positive and negative information in the text
Cultural	Holistic	Developing others' ideas	Reader projection onto theoretical material

Levels of Understanding	Understanding Skills	Indicators of Understanding (Required Abilities)	Methods of Text Comprehension
Creative	Holistic Analytical	Persuasive argumentation of one's own ideas.	Identifying contradictions in the text.
		Identifying non-obvious patterns.	Defining one's own problem within the text.
		Engaging in professional discussions, supported by evidence.	Comparative table.

The natural level corresponds to methods such as creating an illustrative text plan and oral reproduction of secondary text. An illustrative text plan involves compiling a set of illustrations that convey the main ideas of the educational text. This plan should be recognizable not only to its creator but also to others familiar with the text. Based on this plan, the student generates a secondary text and presents it orally. Classification, on the other hand, involves identifying familiar and unfamiliar concepts, processes, and phenomena described in the text. When "marking positive and negative information in the text," the student categorizes the information as positive or negative and explains why it falls into each category. At this stage, students use their analytical skills to break the text into discrete semantic units for further familiarization. These methods create conditions in the educational process that enable students to make self-determined choices, allowing them to structure information, refine new definitions, phenomena, and processes using their analytical skills (Ricketts, 2020).

The cultural level corresponds to the method of reader projection onto theoretical material. Reader projection is the result of the process by which the recipient perceives the text in their own consciousness (Sorokin, 1985). Transferring the meaning of the text to one's existing knowledge and personal experience, particularly when it is analogous to the situation described in the text, is possible only through understanding. Furthermore, reasoning, and answering one's motivational questions about the text (e.g., "Where can this be applied?" and "How is this related to my professional activity?") will enhance understanding of both theoretical and practical material (Miyamoto, Pfost

& Artelt, 2019). Holistic skills are utilized at this stage, allowing learners to integrate the definitions and processes identified in the first stage, comprehend the author's intended meaning, and apply it to their experiences and similar situations.

The third, creative level of text understanding, can be achieved through methods such as "identifying contradictions" and "defining the problem of the text." In philosophy, a contradiction is defined as "a category that expresses the internal source of all motion, development, change, and transition to a new quality" (Kondakov, 1975). In pedagogy, contradiction is understood as "a mismatch between opposites: the desired and the actual, needs and possibilities" (Glebov, 2020). Accordingly, a contradiction represents an individual insight of the learner, who identifies it while analyzing the received information and integrating it into their own worldview.

An essential component of any text is its problem. The problem of a text is understood as the contradiction raised in the study under review or in its connection with external factors, other studies, or sciences as a whole. The text's problem "requires going beyond the knowledge already acquired and moving toward new knowledge" (Mochalov, 1964). Solving the problem involves exploring aspects that have not been previously studied. The quality of future knowledge depends on how correctly the problem is formulated (Collins, 2020; Dorozhkin & Golubinskaya, 2023).

A learner can identify the problem of a text based on previously acquired theoretical knowledge, their own life experience, and by asking questions about how the information in the text could be used in their future professional activities or about its potential negative impact on areas not mentioned in the text.

The "comparative table" as a method of understanding involves the independent identification of objects for comparison within the text and criteria for their analysis.

Working with a text at the creative level requires students to possess a high level of holistic and analytical skills, as the task involves not only analyzing the meaning of the text but also integrating their own knowledge and being able to navigate their external environment. These methods of understanding texts help develop the following abilities:

- identifying non-obvious patterns in the text, enabling the extraction of not only surface-level information but also hidden meanings. This process involves correlating the information with the learner's own knowledge and life experience, as well as interpreting the extracted information.
- persuasive argumentation of one's own idea, which should address contentious and non-obvious points in the text and must be formulated clearly and precisely (Venediktova, 2013).
- engaging in professional discussions with supporting evidence, which requires students to have a strong grasp of theoretical material and the ability to establish logical connections between various definitions, phenomena, and events necessary to substantiate their viewpoint.

The aim of this study was to assess the development of students' level of text understanding after being trained in methods of working with texts, which is a cornerstone of successful learning. We hypothesized that providing students with specialized training in text comprehension methods would help develop their holistic and analytical skills.

Methods

The study involved students from the Far Eastern State Medical University of the Ministry of Health of Russia, Khabarovsk. The experimental group consisted of 60 students, while the control group also included 60 participants. Within the framework of the experiment, the evaluation of students' work using the proposed methods of text comprehension was conducted by assessing mastery of the following skills: "structuring information," "developing someone else's idea," "convincingly presenting one's own position," "identifying non-obvious patterns," and "engaging in professional discussions with supporting evidence." Proficiency in these skills was achieved through mastering various methods of understanding texts. To analyze the dynamics of skill development related to text comprehension, the levels of text understanding developed by V.P. Zinchenko were utilized.

The following methods were employed in this study:

- analysis of literature on the subject-analytical approach in psychology and the problem of text comprehension;
- exploratory (diagnostic), formative, and confirmatory experiments, during which students were trained in methods of text comprehension aimed at developing skills and abilities;
- Mann-Whitney U test and Spearman's rank correlation coefficient;
- quantitative and qualitative analysis of the obtained data.

During the experiment, activities were carried out to develop the skills and abilities necessary for text comprehension (for more details, see Kameneva-Lyubavskaya & Borzova, 2024).

One of the texts provided to students was I.A. Kradenykh's work "The Economic Potential of the Advanced Development Territory of the Khabarovsk Region" (Kradenykh, 2023). We proceeded from the understanding that the modern world demands comprehensive development from the education system and each individual, as well as readiness to adapt to society with its constantly changing conditions and accelerating pace of life. Since the training in text comprehension methods was conducted within the framework of the discipline "Economics," the acquisition of the necessary skills was based on the knowledge gained in this subject.

We emphasized that, in the relatively unconstrained conditions of the educational process, students would apply the learned methods of working with texts both within the scope of other academic disciplines and in extracurricular activities.

Results

Below are examples of work from students in the experimental group who underwent specialized training in text comprehension methods. The original spelling and grammar of the students' responses have been preserved.

Reader Projection onto Theoretical Material

During training in this method, students analyzed phenomena and processes described in the text, seeking to justify them using theoretical knowledge.

Student M.N. writes: "At the beginning of the article by I.A. Kradenykh, the advantages of the Territory of Advanced Development (TAD) are listed, which exemplify the state's fiscal policy. By exempting enterprises located in these territories from certain taxes for a specified period, the government supports their operations and facilitates growth. This allows enterprises to save funds and reinvest them in development. Additionally, TAD enterprises receive state subsidies and investments from larger domestic or foreign firms. Establishing new enterprises in TADs also creates jobs, which should reduce unemployment and improve societal well-being."

Within the "reader projection" framework, student M.N. correctly identified that TAD support measures reflect the state's fiscal policy. The student further argued that these measures stimulate regional economic growth, expanding beyond mere paraphrasing to logically develop the author's ideas. This demonstrates mastery of the skill "elaborating others' ideas."

Defining the Text's Problem

Training in this method began with analyzing the concept of "contradiction." After grasping it, students identified phenomena or processes conflicting with the text's claims, using these contradictions to formulate problems.

Student F.I. states: "There is a contradiction between the purported advantages of TADs and their innovative development. The author highlights Khabarovsk Krai's infrastructure, resource base, and logistics potential but later notes its lag in socio-economic indicators, skilled labor shortages, and low investment appeal. Despite state support, TADs remain unattractive to investors due to underdeveloped infrastructure, remoteness from central regions, and 'brain drain.' While foreign specialists work there, their qualifications are insufficient. Until the region improves living standards (education, healthcare, wages, housing costs), skilled workers will keep migrating westward, deterring investors. Thus, a key problem is the TADs' lack of investment attractiveness and economic efficiency.

Additionally, there is a contradiction between TAD development and its environmental impact. Expanding industry under TADs will increase pollution. Enterprises would need more treatment facilities, reducing profitability. This raises the problem of ecological safety in TAD development."

These contradictions are clearly formulated and rigorously substantiated by the student using both textual information and personal knowledge. Student F.I. identified a pattern between the slow development of enterprises within TADs and the regions' unattractiveness to highly qualified specialists. The student also articulated and justified an original contradiction regarding TAD development and its negative environmental impact. Analyzing this response, it is evident that F.I. has mastered skills such as "elaborating others' ideas," "persuasive articulation of one's claims," "identifying non-obvious patterns," and "conducting professional discourse supported by evidence."

Comparative Table

The comparative table method involves identifying definitions, phenomena, and processes in the text that can be contrasted. When textual descriptions of selected elements lack sufficient detail, students were advised to conduct additional research to enable comprehensive comparative analysis. After completing the table, students were required to write qualitative and, where possible, quantitative conclusions.

Below is the work of student P.V., based on the "comparative table" method:

"Conclusion. As shown in the table, each of the three TADs described in the text has a specialization aligned with the region's resources. Consequently, their operational focus varies. In Nikolaevsk, it is the use of the rich natural resources available in the area; in Komsomolsk, it is the development of scientific and technological progress (STP) aimed at producing more advanced machinery; and in Khabarovsk, it is socio-economic development. Therefore, each TAD has its own problems hindering its normal and productive development. For example, the problem of remoteness in the Nikolaevsk TAD can be addressed by constructing a new high-quality and safe road capable of supporting the weight of heavy freight trucks used to transport raw materials. The outflow of young specialists from the Komsomolsk TAD can be mitigated by making jobs more attractive (e.g., offering greater social benefits, higher salaries, subsidies for purchasing private rather than employer-provided housing, and providing healthcare services at a high standard). The problem of expanding land for agricultural enterprises in the Khabarovsk TAD can be resolved through assistance from local authorities in identifying owners of abandoned land plots and facilitating their purchase.

Thus, the task of regional authorities is not only to monitor the implementation of state support measures and achieved performance indicators but also to assist in promptly resolving emerging issues. With this support, TAD enterprises will develop more actively and generate higher profits, which will result in increased tax revenues for the regional budget, ultimately contributing to the better development of the Khabarovsk Region.

Table 3

Student P.V.'s Work Using the "Comparative Table" Method

Comparative Features	TAD "Nikolaevsk"	TAD "Komsomolsk"	TAD "Khabarovsk"
Production	Ship repair, fish processing, mining	Machinery, metalworking, woodworking	Agriculture, logistics, manufacturing
TAD Focus	Natural resource utilization	Scientific-technological advancement, labor force expansion	Socio-economic development
TAD Challenges	Remote location, poor transport access	Brain drain (youth migration)	Expansion of agricultural enterprise areas through the utilization of abandoned land plots

The student, using the text and their existing knowledge, competently compiled a comparative table (Table 3), identifying comparative features for the analysis of each TAD (Territory of Advanced Development). The student highlighted and briefly described the main types of activities for each TAD discussed in the article, outlined their primary focus, and identified their challenges. Additionally, the student proposed solutions to these challenges to improve the performance of the enterprises. By applying this method of text comprehension, the student demonstrated skills such as "developing others' ideas," "persuasively presenting their own proposals," "identifying non-obvious patterns," and "conducting professional discussions while providing supporting evidence." The student also demonstrated analytical skills (through detailed descriptions of each TAD) and holistic thinking (in formulating the conclusion).

Analysis of Quantitative Research Indicators

The study involved 120 students from the Far Eastern State Medical University of the Russian Ministry of Health, with 60 participants in the experimental group and 60 in the control group.

Before the experiment, the level of skills required for text comprehension (assessed on a scale from 1 to 5, where 1 is the lowest score and 5 is the highest) was the same in both the control and experimental groups. This is evidenced by the calculated Mann-Whitney U test values, which exceed the critical value of 1486 and fall within the zone of insignificance.

The analysis of statistically significant differences between the control and experimental groups at the end of the study was also conducted using the Mann-Whitney U test. The results are presented in Table 4.

Table 4
Mann-Whitney U Test Results

Information structuring	developing others' ideas	Persuasive articulation of claims	Identifying non-obvious patterns	Conducting a professional discussion with supporting evidence
682,5	532,5	550	302	469

As shown in Table 4, statistically significant differences were observed in all the skills necessary for text comprehension that we considered, since the calculated indicators are less than the table value (equal to 1486), and therefore all values fall within the significance zone (Naumova, Mukhacheva, 2014).

In addition, a Spearman correlation coefficient matrix was constructed (Table 5). It shows that there is a high (or medium, closer to the upper boundary of the values) correlation between the presence of specialized training in text comprehension methods and the level of skill development (the strength of the correlation was assessed using the Chaddock scale).

Table 5

Correlation Coefficient Matrix

Indicators	Presence of specializedtTraining	Structuring Information	Developing Others' Ideas	Persuasive Presentation of Own Proposal	Identifying Non-obvious Patterns	Conducting a professional discussion with supporting evidence
Presence of Specialized Training	1	0,6	0,7	0,7	0,7	0,7
Structuring Information	0,6	1	0,6	0,4	0,5	0,4
Developing Others' Ideas	0,7	0,6	1	0,6	0,5	0,5
Persuasive Presentation of Own Proposal	0,7	0,4	0,6	1	0,6	0,5
Identifying Non-obvious Patterns	0,7	0,5	0,5	0,6	1	0,5
Conducting a professional discussion with supporting evidence	0,7	0,4	0,5	0,5	0,5	1

Note: p ≤0,05

Additionally, the matrix shows a medium correlation between the skills considered. This indicates that all of them are interrelated, and mastering just one skill without acquiring the others is not possible.

Discussion

The data obtained during the study are the result of implementing specialized training in text comprehension methods. Statistically significant differences were found between the control and experimental groups at the final stage of the study. This indicates that students who underwent specialized training possess higher-level text comprehension skills and, consequently, more advanced analytical and holistic abilities (Ryherd & Landi, 2019). To qualitatively analyze the dynamics of skill development related to text comprehension, a framework of text comprehension levels developed by V.P. Zinchenko was applied. For example, the skill of "structuring information" corresponds to the first, natural level of text comprehension, as it involves understanding individual definitions and words described in the text while allowing for a lack of understanding of the text's overall meaning. The goal of this level in teaching students text comprehension methods is to teach them to structure information according to specific criteria defined by the text's theme and to identify unfamiliar information (definitions, processes) for deeper understanding in the future. Therefore, the work with students on teaching text comprehension methods was aimed at developing analytical skills.

Skills such as "developing others' ideas" were mastered by students at the second, cultural level of text comprehension, which is characterized by the symbolic representation of the text's meaning. At this level, students must integrate the information obtained at the first level to convey the text's meaning, thereby utilizing their holistic skills. A good indicator is the students' ability to argue the author's hypotheses not only using words from the text but also their own reflections, supported by previously acquired theoretical knowledge on the topic.

Skills such as "identifying non-obvious patterns," "persuasively arguing one's own idea," and "conducting a professional conversation with supporting evidence" correspond to the highest, creative level of text comprehension, as they involve the generation of new meanings by the learners. Here, the use of both analytical and holistic skills is observed, enabling the systematization of new information and its integration into the learner's knowledge structure. The teacher's task at this level is to create conditions in which students not only analyze and perceive information but also desire to share their "discoveries"—what they have learned and concluded (Groen, Veenendaal & Verhoeven, 2019).

The obtained results suggest that students who underwent specialized training in text comprehension methods are capable of reaching the creative level, characterized by a high level of mastery of analytical and holistic skills, while students in the control group remained, at best, at the cultural level.

Conclusion

The process of text comprehension in the educational context represents an interaction between the learner and the text, which includes the following sequential levels: the natural level, characterized by literal understanding; the cultural level, distinguished by the symbolic representation of the text; and the creative level, marked by complete understanding and the generation of new meanings. Each level has its own structural components, which include structural elements, cognitive processes corresponding to each level of comprehension, and the focus of text comprehension methods.

To achieve the creative level of comprehension, we developed conceptual principles for a text comprehension model based on the subject-analytical approach proposed by V.V. Znakov. Comprehension at the highest level requires learners to possess well-developed analytical and holistic skills. Mastery of these skills is achieved through the practice of abilities such as "structuring information," "developing others' ideas," "identifying non-obvious patterns," "persuasively presenting one's own proposal," and "conducting a professional conversation with supporting evidence." These abilities, in turn, are honed through various text comprehension methods.

During the study, we observed that students who engaged in specially organized activities were far more likely to reach the creative level of text comprehension. Those who did not undergo specialized training typically remained, at best, at the cultural level—the level of symbolic representation of the author's ideas.

A text typically provides just enough information for the learner to familiarize themselves with a particular phenomenon or process, leaving room for their own thoughts and reflections. Understanding what is described in the text corresponds to the natural level, while expressing the author's ideas in one's own symbolic form corresponds to the cultural level. Filling the space left by the author for reflection, posing one's own questions, and contemplating identified issues correspond to the creative level, where the ideas and thoughts presented in the text intersect with the reader's worldview. This interaction can lead to the birth of new thoughts and knowledge. Viewing the student as a subject operating at the highest level of their cognitive integrity and activity, we proceed from the assumption that they must master a wide range of methods for working with various types of texts to achieve a high level of comprehension. Under the guidance of an educator, as learners assimilate a broad spectrum of text-processing methods, they identify those that are most relevant and meaningful to them. Mastering one set of methods often leads to the desire to apply others, develop new ones, transform existing ones, and pay close attention to one's own words and thoughts. Thus, teaching students comprehension based on the subject-analytical approach should be considered a distinct field of knowledge aimed at equipping them with the necessary skills and abilities. These will not only aid them in their future professional endeavors but may also lead to new scientific insights or discoveries.

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Tatyana V. Borzova – Theoretical review of foreign and Russian research, preparation of the article text, work with sources.

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Conflict of Interest Information

The authors have no conflicts of interest to declare