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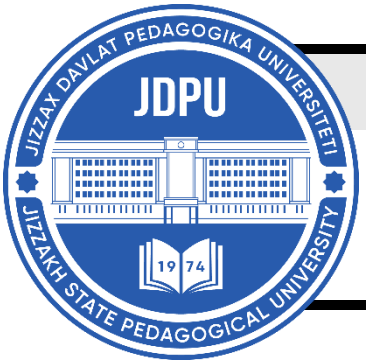

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DEVELOPMENT OF READING COMPETENCE IN A FOREIGN LANGUAGE: PSYCHOLINGUISTIC, COGNITIVE, AND METACOGNITIVE APPROACHES

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ABOUT ARTICLE

Key words: encoding, decoding, foreign language reading, psycholinguistics, reading competence, cognitive and metacognitive models, integrative approach, interactive tasks, reading comprehension, deep understanding, reflection abilities.

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Abstract: The article analyzes the process of reading in a foreign language from psycholinguistic and pedagogical perspectives. The purpose of this study is to identify mechanisms and theoretical models for developing students' reading competence in a foreign language. Reading in a foreign language encompasses cognitive, perceptual, and metacognitive processes, involving encoding and decoding mechanisms that allow visual reception of the text, semantic interpretation, and integration with prior knowledge and context.

The article examines various types of reading — informational, analytical, extensive, intensive, skimming, scanning, receptive, and productive reading. Furthermore, cognitive, constructivist, and metacognitive models are analyzed. The study emphasizes the effectiveness of integrative approaches, including graphic organizers and interactive tasks, in enhancing reading comprehension.

The results indicate that these models contribute to students' deep understanding, independent thinking, and creative reflection abilities.

Introduction. The process of reading a foreign language is considered a complex psycholinguistic activity that connects cognitive, perceptual and linguistic competencies of a person [3], [4]. This process is not limited to visual perception of the text, but also includes the ability to analyze the meanings expressed in it, understand the context and integrate new information with existing knowledge [14], [15]. Within the framework of the psycholinguistic approach, reading is interpreted as a combined activity of cognitive and linguistic processes and is based on the mechanisms of encoding and decoding. The encoding process represents the author's transformation of conceptual content into verbal form through the language system, and the semantic meaning is expressed in the form of text through lexical units and syntactic structures. Decoding, on the other hand, is the process of the reader's perception of these language signs, their connection with existing cognitive schemes and the reconstruction of the content based on semantic interpretation. The effectiveness of the reading process is determined by the level of development of the decoding mechanism, which directly depends on the reader's lexical reserve, grammatical knowledge, discursive awareness and field preparation [2], [6]. Decoding is deepened through interdisciplinary knowledge, conceptual understanding, and contextual analysis during the reading of scientific and technical texts, especially within English for Special Purposes. As a result, the student moves from a superficial understanding of the text to a meaningful and professional understanding. This process develops students' independent thinking, serves to form professional communicative competence, and increases educational efficiency.

Materials and methods. Researchers emphasize that reading in a foreign language is not just the pronunciation of written signs, but the ability to understand and process the semantic code. Thus, the main psycholinguistic mechanism of reading is the process of encoding and decoding, which operates at the phoneme, morpheme, word, speech, and text levels [4], [5], [6], [7].

During reading, the human brain performs several cognitive operations simultaneously:

1. Recognition of graphemes - that is, visual perception of letters and signs;
2. Phonological encoding - conversion of read signs into pronounced language units;
3. Semantic processing - understanding the meaning of words and speech;
4. Syntactic analysis - identification of grammatical relations;
5. Pragmatic interpretation - understanding the context and communicative purpose.

These processes are interconnected, and their coherence provides the learner with the ability to reconstruct and comprehend meaning. The success of learning a foreign language depends on the level of automation of these processes.

S. Ehlers emphasizes that in order to correctly perceive a foreign language text, a person must form a “second language thinking system”. Through this system, the reader begins to understand words directly through a chain of meanings, without translating them. Thus, the automation of cognitive activity and the active use of cognitive schemes in reading are the main psychological mechanisms [4].

According to H. Willenberg, in the process of reading in a foreign language, “interlingual bridges” play an important role - that is, semantic and structural connections between the native language and the language being studied. With the help of these bridges, the reader connects information in the new language with previous knowledge [7]. Thus, reading becomes not only a creative act of language perception, but also a creative act of meaning construction and recoding.

G. Westhoff (Westhoff, 2001) describes the psycholinguistic model of reading in a foreign language as a five-stage structure:

1. Input - viewing and encoding visual information;
2. Recognition – connecting graphemic forms with meaning;
3. Interpretation – understanding the meaning of the text in context;
4. Integration – integrating new information into the existing knowledge system;
5. Response – expressing a personal attitude to the information read.

These stages are the basis for developing students’ competence in understanding meaning. Therefore, in developing reading, it is necessary to take into account not only language rules, but also cognitive, emotional and motivational factors.

According to J. Grzesik (Grzesik, 2018), a successful reader perceives the text not as a “code”, but as a source of information. He processes the signals in the text and places them in his personal knowledge system. This process requires metacognitive strategies – that is, the ability to plan, monitor and evaluate his own reading [6].

Thus, the psycholinguistic mechanisms of reading in a foreign language include:

- Perceptual processes - seeing, recognizing, concentrating;
- Cognitive processes - understanding, storing in memory, drawing conclusions;
- Metacognitive processes - monitoring, evaluating, processing.

These mechanisms, being interconnected, form the competence of students to understand the text in a foreign language. For their effective development, the teacher should support reading activities not only with lexical and grammatical knowledge, but also with cognitive strategies and graphic organizers.

Classification of types of reading in a foreign language. Reading activity in a foreign language is based on various goals and cognitive processes. Therefore, a clear definition of its types is important for the correct organization of the educational process and the development of reading competence in students. In the pedagogical and psycholinguistic literature, there are different approaches to reading types, which are classified mainly according to the educational goal, the nature of the activity and the psychological state of the student.

RESULTS AND DISCUSSIONS

According to scientific researchers, reading in a foreign language can be grouped according to three main criteria [2], [3], [5], [6], [13]:

1. According to the purpose of reading,

2. According to the nature of the activity,

3. According to the level of text processing.

1. Types according to the purpose of reading

According to this criterion, reading is divided into the following types [6], [15]:

• Informative reading - the main goal is to understand new information, to master scientific knowledge. In this type, the reader identifies the main facts, conclusions and technical terms in the text. For example, this type is used when reading articles in the field of chemistry or engineering.

• Critical reading - in this type, the reader analyzes the text from a critical point of view, compares evidence and conclusions. This type develops the cognitive and analytical abilities of students.

• Reflective reading - the process of connecting the information read with personal experience and knowledge. This type activates metacognitive thinking.

2. Types by the nature of the activity

This group is based on the level of activity in the reading process [5], [15].

• Extensive reading is reading a large amount of material to understand the general content. This type helps to understand the meaning based on the context, without translating each word with the help of a dictionary. Extensive reading develops a sense of language in students and activates automation mechanisms.

• Intensive reading is carried out for the purpose of deep analysis of the text, full lexical and grammatical understanding. This type is important when working with scientific or academic texts.

• Scanning is carried out to quickly find the necessary information in the text. For example, when searching for names, numbers or formulas of chemical reactions.

• Skimming is a fast-reading method to understand the general content of the text. This type develops students' ability to think quickly and identify the main idea.

3. Types by the level of text processing

This type focuses on the level of cognitive activity in the reading process.

• Receptive reading — the student receives ready-made information, that is, a passive type of activity. For example, the simple reception of scientific information.

• Productive reading — the student creates a new idea, conclusion or reasoning based on the information read. This type develops creative and scientific thinking in students.

• Interactive reading — the process of “relationship” between the student and the text. In this type, the student actively interprets the text, asks questions and seeks answers.

Pedagogical significance. The correct choice of reading types is crucial for the development of communicative and semantic competences in a foreign language in students. For example, intensive and scanning types are effective for students in technical fields, while extensive and interactive reading is preferable for students in the humanitarian field.

As noted in the studies of G. Westhoff and J. Grzesik, the mixed use of reading types in a foreign language (hybrid approach) significantly increases the overall reading ability of students, since in this case the student actively uses various cognitive strategies.

Thus, a scientifically based classification of reading types in a foreign language provides an individual approach to the learning process and serves to fully form the structure of the student’s reading competence in a foreign language.

The essence and structure of foreign language learning competence. In the modern education system, the process of teaching students to read in a foreign language requires not only linguistic knowledge, but also a competency approach. This approach is aimed at developing the student's ability to apply theoretical knowledge in practical activities, which redefines the content and essence of education.

The concept of foreign language learning competence. The term “learning competence” has been formed as an important category in pedagogical and psycholinguistic research in recent decades. The concept of competence was first defined in the second half of the twentieth century by N. Chomsky [1] as linguistic competence, which meant a person's ability to correctly apply the rules of language. Later, this concept was widely applied to the field of education and was interpreted as an integrative system of knowledge, skills and qualifications in educational activities.

On this basis, learning competence in a foreign language is the student's ability to perceive, understand, analyze and use written information in a foreign language. It is

manifested as a harmonious system of language knowledge, cognitive operations and metacognitive strategies. As I.A. Zimnyaya noted, learning competence is “a dynamic structure consisting of the active integration of knowledge, skills, motivation and personal experience”. Thus, this competence includes not only the level of knowledge, but also the student's attitude to learning and active cognitive participation [2].

Structural components of learning competence. Most scientific sources emphasize that learning competence in a foreign language consists of several interconnected components. They can be grouped as follows [4], [5], [6], [7]:

1. Linguistic component

This component includes knowledge of the phonetic, lexical and grammatical systems of the language and the ability to correctly use them in the process of reading. Its main task is to correctly recognize signs in the text and associate them with meaning. Without linguistic knowledge, semantic processing of the text is ineffective.

2. Cognitive component

The cognitive component covers the processes of receiving, analyzing and processing knowledge. It is closely related to the student's cognitive activity, memory, attention and thinking system. Through this component, the student connects the information in the text with his existing knowledge, draws conclusions and creates new meaning.

3. Strategic (metacognitive) component

This component represents the student's ability to select, plan, monitor and evaluate learning strategies. According to J. Grzesik, metacognitive strategies ensure that the student independently manages the learning process, that is, he knows where there is a problem with comprehension and can choose the appropriate method for it.

4. Motivational-ethical component

This part of the learning competence is related to the student's personal interests, needs and internal motivation. Strong internal motivation in language learning increases the effectiveness of learning. As S. Ehlers noted, “success in learning activities largely depends on the emotional and motivational state.”

5. Social-communicative component

This component includes the ability to use information in a foreign language in a social context. That is, the student must know how to use the information read in communication, in a professional or academic environment.

The integrative nature of learning competence. Learning competence in a foreign language is not a set of isolated skills, but an integrative system that combines various cognitive and linguistic processes. Its formation occurs in stages:

1. Receptive stage - perception of the text and recognition of words;

2. Semantic stage - understanding the meaning and connecting it with the context;

3. Integrative stage - incorporating new information into the system of personal knowledge;

4. Productive stage - drawing conclusions or expressing opinions using the information read.

Thus, learning competence in a foreign language transforms the student's language knowledge into the ability to use it in practice. It is closely related to the directions of cognitive psychology, sociolinguistics and pedagogical psychology.

Factors for the development of learning competence

As noted in scientific sources, the effective development of learning competence depends on the following factors:

- The motivational and interactive nature of the educational environment;
- Relevance of text selection to students' field of study;
- Use of graphic organizers, cognitive strategies, and metacognitive methods;
- Integration of problem-based learning and project methods.

Thus, foreign language learning competence is a multi-component psycholinguistic system that encompasses the learner’s ability to know, understand, and reason, and is based on cognitive activity, metacognitive control, and social communication skills.

Theoretical models of developing foreign language reading competence. The development of foreign language reading competence is a multifaceted and integrative process in educational theory, which aims to transform language knowledge into practical activity. This process is provided not only by linguistic abilities, but also by cognitive, psycholinguistic and social factors. Theoretical models developed on the basis of modern methodological approaches allow us to consider the student as an active subject of knowledge.

1. Cognitive model

Cognitive theory explains the educational process through the mechanisms of receiving, processing and storing information in the human mind. Reading in a foreign language is also carried out as a cognitive activity. In this model, the student is an active subject of knowledge, connecting new information through the text with the existing knowledge system [4], [5], [14].

S. Ehlers and G. Westhoff emphasize that in the process of understanding a foreign language text, a person's memory, attention, visual perception and semantic processing abilities are activated. This process is carried out by creating a mental model: the student transforms the signs in the text into a structure, and then forms a chain of meaning.

In the cognitive model, reading takes place in the following stages:

1. Perception - recognizing and perceiving visual signs;

2. Decoding - connecting graphemes and phonemes with meaning;

3. Interpretation - deriving meaning based on context;

4. Integration - combining new information with existing knowledge.

These stages develop students' ability to create meaning and think. The main advantage of the cognitive model is that it interprets reading not only as a process of knowing language, but also as a process of understanding meaning.

2. Constructivist model

The theory of constructivism (J. Piaget, L. S. Vygotsky, D. Bruner) explains education as a process of active knowledge construction. In this model, the student does not accept ready-made knowledge, but constructs it through personal experience and active activity.

In the process of studying a foreign language, the constructivist approach suggests considering the student as a "co-author" of the text. He does not just read the text, but also interprets it, asks questions, discusses and draws conclusions. Reflective reading and interactive strategies play an important role in this process [10], [11], [12].

According to L. S. Vygotsky's theory of the "zone of proximal development", students master complex meanings in reading with the help of a teacher and then begin to apply them independently. Thus, reading competence is a cognitive system that is built step by step.

Advantages of the constructivist model:

• Develops the student as an active thinking subject;

• Forms the student's ability to create personal meaning;

• Strengthens cognitive and social interaction.

Learning materials based on this model—problem texts, clusters, graphic organizers, and case studies—activate the student's learning process.

3. Metacognitive model

The metacognitive model is based on the ability of a person to control his own cognitive processes. In foreign language learning, this model includes strategies for planning, monitoring, and evaluating his own learning [6], [8], [9].

In the metacognitive model, the student performs the following three tasks:

1. Planning - sets the learning goal, chooses a strategy (for example, scanning or intensive reading);

2. Monitoring - controls the comprehension process, identifies where there are difficulties;

3. Evaluation - analyzes the learning result, selects effective methods.

This model develops self-regulation skills in students. According to J. Grzesik, metacognitive strategies are the key to success in foreign language learning, because through them the student deeply understands the text and can independently analyze it.

The metacognitive model is used in practice through the following methods:

• “Think-aloud” method;

• “KWL charts” (Know–Want–Learn chart);

• Graphic organizers and mental maps;

• Written analysis of the student's own reading strategies (reading journals).

These methods form the ability of students to understand and manage their own cognitive activity.

4. Interactive model

The interactive model is based on the interaction between the reader and the text. According to this model, the reading process is not just passive reception, but rather dialogic thinking. In it, the reader “talks” to the text: asks questions, looks for answers, makes assumptions, and tries to reconstruct meaning [14], [15].

In the interactive model, there is a two-way communication between the text and the reader:

• Top-down process - the reader guesses the meaning using existing knowledge;

• Bottom-up process - creates meaning based on linguistic information in the text.

When these two processes work in harmony, the efficiency of comprehension increases, and the reader develops a sense of language and cognitive depth.

5. Integrative (hybrid) model

In modern methodology, many scholars propose a hybrid or integrative model for the development of reading in a foreign language. This model combines cognitive, constructivist, and metacognitive approaches [4], [5], [7].

Key features of the integrative model:

• Supports student cognitive activity;

• Provides meaning-making through interaction with the text;

• Teaches effective management of reading strategies through metacognitive control;

• Enriches the learning environment socially and emotionally.

Lessons organized based on this model effectively use graphic organizers, problem-solving tasks, interactive discussions, and project-based learning.

Conclusion. Theoretical models of the development of foreign language reading competence consider the student not as a passive learner, but as an active subject of knowledge. Through the harmonious application of cognitive, constructivist and metacognitive approaches, students develop the ability to understand, think independently and creatively. The integrative model also provides interdisciplinary connections in foreign language learning, as it combines psychological, pedagogical and linguistic theories in a single system. This will serve to effectively develop students' competence in working with information in a foreign language in their future professional activities.

References:

[1]. Chomsky, N., 1965, Aspects of the Theory of Syntax. Cambridge, MA: MIT Press.

[2]. Zimnyaya, I. A., 2003, Obuchenie chteniyu v inostrannom yazyke. Moscow: Akademiya.

[3]. Leontiev, A. N., 1999, Psikhologiya obshcheniya. Moscow: Smysl.

[4]. Ehlers, S., 1998, Lesen als Verstehen: Zum Verstehen fremdsprachlicher Texte. Berlin: Langenscheidt.

[5]. Westhoff, G., 2001, Fremdsprachen lesen lernen: Prozesse und Strategien. Tübingen: Narr.

[6]. Grzesik, J., 2018, Strategieorientierter Fremdsprachenunterricht: Lesen und Metakognition. Frankfurt am Main: Peter Lang.

[7]. Willenberg, H, 2004, Lesekompetenz und fremdsprachliches Verstehen. München: Ernst Reinhardt Verlag.

[8]. Flavell, J. H. “Metacognition and Cognitive Monitoring: A New Area of Cognitive–Developmental Inquiry.” American Psychologist, vol. 34, no. 10, 1979, pp. 906–911.

[9]. Anderson, N. J., 2002, “The Role of Metacognition in Second Language Teaching and Learning.” ERIC Digest, ED463659.

[10]. Piaget, J., 1950, The Psychology of Intelligence. London: Routledge.

[11]. Vygotsky, L. S., 1978, Mind in Society: The Development of Higher Psychological Processes. Cambridge, MA: Harvard University Press.

[12]. Bruner, J. S., 1960, The Process of Education. Cambridge, MA: Harvard University Press.

[13]. Folomkina, S. K., 1987, Obuchenie chteniyu na inostrannom yazyke v neyazykovom vuze. Moscow: Vysshaya shkola.

[14]. Anderson, R. C., & Pearson, P. D. “A Schema-Theoretic View of Basic Processes in Reading Comprehension.” In Handbook of Reading Research, New York: Longman, 1984, pp. 255–291.

[15]. Grabe, W., & Stoller, F. L., 2011, Teaching and Researching Reading. 2nd ed., London: Pearson Education.