THE USE OF INFORMATION TECHNOLOGIES IN TEACHING NEOLOGISMS

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Abstract. *This article provides a comprehensive theoretical and experimental analysis of the pedagogical effectiveness of information technologies in teaching neologisms in the Karakalpak language. In the context of globalization and digital transformation, the lexical system of the Karakalpak language is rapidly enriched with new lexical units. Teaching these neologisms requires innovative methodological approaches that integrate multimedia tools, online educational platforms, and interactive digital resources. The study applies cognitive theory, constructivist pedagogy, and communicative language teaching principles to examine how digital technologies influence vocabulary acquisition. An experimental study conducted over one academic semester demonstrates that technology-enhanced instruction significantly improves students' lexical retention, contextual application, analytical thinking, and learning motivation compared to traditional teaching methods. The findings confirm that digital pedagogy is a strategic direction for modernizing Karakalpak language education.*

Keywords: *neologism, Karakalpak language, digital pedagogy, vocabulary acquisition, multimedia learning, innovation in education, interactive teaching.*

1. Introduction

The 21st century is characterized by rapid technological progress, digital communication, and global integration. Language, as a dynamic social phenomenon, inevitably reflects these changes. Each stage of social development introduces new concepts, objects, and phenomena that require linguistic expression. As a result, new lexical units — neologisms — continuously emerge.

In recent decades, the Karakalpak language has experienced significant lexical renewal due to scientific advancement, technological innovation, and international cooperation. Terms such as "internet," "startup," "online," "blogger," "platform," "content," "innovation," and "digitalization" have entered everyday communication.

Teaching such vocabulary presents methodological challenges. Traditional teaching methods often focus on memorization, whereas modern pedagogy emphasizes communicative competence, contextual learning, and digital literacy. Therefore, integrating information technologies into vocabulary instruction becomes a pedagogical necessity.

This study aims to:

- Theoretically justify the importance of digital technologies in teaching neologisms;
- Analyze linguistic characteristics of neologisms in the Karakalpak language;
- Experimentally evaluate the effectiveness of multimedia and interactive tools;
- Develop methodological recommendations for teachers.

2. Theoretical Foundations of Neologism Studies

2.1 Definition and Linguistic Nature

A neologism is a newly formed lexical unit or an existing word that acquires a new meaning due to social or technological change. Linguistically, neologisms reflect:

- Lexical expansion
- Semantic shifts

- Borrowing processes
- Word-formation productivity

Neologisms demonstrate the adaptability of language to external influences.

2.2 Classification of Neologisms

2.2.1 Lexical Neologisms

Newly created words (e.g., "startup," "cryptocurrency").

2.2.2 Semantic Neologisms

Existing words with new meanings (e.g., "platform" used digitally).

2.2.3 Borrowed Neologisms

Words adapted from English or Russian.

2.2.4 Authorial Neologisms

Created by writers or media personalities.

2.3 Mechanisms of Formation

- Affixation
- Compounding
- Abbreviation
- Calque translation
- Direct borrowing

The Karakalpak language actively employs morphological adaptation to integrate borrowed words.

3. Information Technologies in Modern Pedagogy

3.1 Digital Pedagogy

Digital pedagogy integrates technological tools into learning environments to enhance cognitive engagement and accessibility.

The theoretical foundation includes:

- Constructivism (knowledge construction through activity)
- Cognitive Load Theory
- Multimedia Learning Theory (Mayer, 2009)
- Communicative Language Teaching

3.2 Multimedia Learning Theory

According to Richard Mayer, learning improves when verbal and visual materials are combined. Multimedia instruction:

- Enhances memory encoding
- Reduces cognitive overload
- Promotes dual-channel processing

3.3 Educational Platforms

Modern teachers use platforms such as:

- Google Classroom
- Moodle
- Quizlet
- Kahoot!

These platforms provide interactive exercises, automated assessment, and collaborative learning spaces.

4. Methodology of the Research

4.1 Research Design

The study used a quasi-experimental design involving two second-year university groups studying Karakalpak linguistics.

- Experimental Group (EG): 28 students
- Control Group (CG): 27 students

Duration: 16 weeks (one semester)

4.2 Data Collection Methods

- Pre-test and post-test
- Vocabulary retention test
- Observation
- Student motivation survey
- Statistical comparison

4.3 Instructional Procedure

Experimental Group

- Multimedia presentations
- Interactive quizzes
- Video-based contextual learning
- Online assignments
- Digital project presentations

Control Group

- Traditional lectures
- Printed textbooks
- Oral questioning
- Written exercises

5. Experimental Results

5.1 Quantitative Results

Indicator	Experimental Group	Control Group
Comprehension	88%	64%
Retention	82%	58%
Application	85%	61%
Motivation	91%	67%

The experimental group outperformed the control group by an average of 24%.

5.2 Statistical Interpretation

Using comparative statistical analysis:

- Vocabulary retention increased significantly ($p < 0.05$).
- Motivation scores demonstrated higher engagement.
- Students showed improved contextual application of neologisms.

6. Pedagogical Model for Teaching Neologisms

A four-stage model is proposed:

Stage 1: Introduction

Visual and multimedia presentation of new terms.

Stage 2: Contextualization

Video analysis and situational examples.

Stage 3: Practice

Interactive tasks and digital quizzes.

Stage 4: Production

Project-based learning and presentations.

7. Advantages of Information Technologies

- Enhances student motivation
- Supports independent learning
- Encourages collaboration
- Provides immediate feedback
- Facilitates differentiated instruction

Digital tools transform passive learning into active knowledge construction.

8. Challenges and Limitations

- Limited technical infrastructure
- Unequal digital access
- Teacher training needs
- Overdependence on technology

To overcome these issues, systematic professional development and institutional support are required.

9. National and Cultural Importance

Neologisms reflect modernization processes within Karakalpak society. Teaching them through digital means:

- Preserves linguistic vitality
- Promotes national identity
- Encourages global competitiveness
- Expands scientific terminology

Language modernization and digital pedagogy are interconnected processes.

10. Discussion

The findings confirm international research indicating that multimedia-based vocabulary instruction enhances retention and motivation. Digital tools provide multimodal input, which strengthens cognitive processing.

Compared to traditional methods, technology-supported instruction promotes:

- Deeper semantic understanding
- Active participation
- Autonomous learning

11. Conclusion

The integration of information technologies in teaching neologisms in the Karakalpak language significantly increases learning effectiveness. Experimental data confirm that multimedia and interactive tools improve vocabulary acquisition, retention, and communicative competence.

Digital pedagogy should become a strategic direction in modern language education. The modernization of Karakalpak linguistic education depends on systematic technological integration.

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