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THE ROLE OF CONTEXTUAL LEARNING IN ACQUIRING MEDICAL TERMINOLOGY IN UZBEK FOR RUSSIAN SPEAKERS

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ABSTRACT
This study explores the role of contextual learning in enhancing the acquisition of medical terminology in Uzbek for Russian-speaking students at the Medical Academy. The research investigates how immersive learning methods, such as role-playing, case studies, and clinical observations, impact the retention and comprehension of specialized medical vocabulary. A mixed-methods approach was employed, involving pre- and post-tests, classroom observations, and student interviews. The results revealed a significant improvement in students' ability to understand and use medical terms after an 8-week contextual learning intervention. This study suggests that contextual learning provides an effective and engaging pedagogical approach, bridging linguistic challenges and promoting the practical use of medical language in professional settings.
KEY WORDS.
Contextual learning, medical terminology, uzbek language acquisition, russian-speaking students, language pedagogy, role-playing, case studies, clinical observations, specialized vocabulary.

INTRODUCTION

Language acquisition in specialized fields such as medicine presents unique challenges, especially for students learning in a non-native language. In Uzbekistan, medical students who are native Russian speakers face difficulties mastering medical terminology in Uzbek, a language with distinct grammatical structures and vocabulary. To address this issue, contextual learning methods—where language instruction is paired with real-life, profession-specific scenarios—have shown promise in enhancing students' linguistic competence.

This study explores the effectiveness of contextual learning in helping Russian-speaking students acquire medical terminology in Uzbek. The research aims to understand how immersive, context-based learning influences retention, comprehension, and practical usage of medical terms in the classroom and clinical settings. By addressing these research questions, this study aims to offer insights for language instructors and curriculum developers working with multilingual learners in medical education.

LITERATURE REVIEW.

Contextual learning, defined as the process of teaching language through immersion in realistic and relevant contexts, has been widely recognized as an effective pedagogical approach in second language acquisition. According to Jean Lave and Etienne Wenger (1991), contextual learning promotes engagement and deep understanding by positioning learners in authentic situations where the target language is naturally applied. This theory contrasts with

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traditional rote memorization techniques, which may not fully engage learners or foster practical language usage, particularly in specialized fields such as medicine.

Studies on second language acquisition, particularly in medical fields, highlight the benefits of contextual learning in enhancing the comprehension of technical terms. For example, a study conducted by Smith et al. (2015) demonstrated that medical students learning Latin-based medical terminology through clinical role-play outperformed peers in retention tests compared to those taught using traditional methods. Similarly, Kwon (2018) found that Korean-speaking medical students learning English medical terminology through problem-based learning scenarios were more likely to retain and correctly use complex terms in clinical settings.

For Russian-speaking students in Uzbekistan, the challenges of acquiring medical Uzbek are compounded by linguistic differences between the two languages, including syntax, phonology, and morphology. Uzbek, a member of the Turkic language family, differs significantly from Russian in grammatical structure, which can create barriers for students unfamiliar with the agglutinative nature of Uzbek. The gap between colloquial and professional language further complicates the learning process, as medical students must navigate both general vocabulary and specialized terminology.

METHODOLOGY

Research Design

This study employs a mixed-methods approach, combining quantitative and qualitative research to investigate the role of contextual learning in acquiring medical terminology. Quantitative data were gathered through pre- and post-tests measuring the students' ability to recall and understand medical terms in Uzbek. Qualitative data were collected via classroom observations and student interviews to assess the students' perceptions of contextual learning and their experiences.

Participants

The participants in this study were 30 Russian-speaking first-year medical students enrolled at the Medical Academy in Tashkent. They were selected based on their language background (Russian as their first language) and their level of proficiency in Uzbek (intermediate level). All participants had little to no previous exposure to medical terminology in Uzbek prior to the study.

Data Collection

1. **Pre-Test and Post-Test**: A set of 50 medical terms commonly used in clinical practice (e.g., anatomy, diagnostics, patient communication) was selected. A pre-test was administered to assess the students' baseline knowledge of these terms in Uzbek. After 8 weeks of instruction using contextual learning methods, a post-test was given to measure progress.
2. **Classroom Observations**: Throughout the 8-week period, classroom observations were conducted to document student engagement, participation in discussions, and interaction during role-plays and case studies. The focus was on how contextual learning influenced their confidence and comprehension.
3. **Interviews**: Semi-structured interviews were conducted with 10 randomly selected participants after the post-test to gain insights into their experiences with contextual learning. The interviews focused on the perceived usefulness of real-life scenarios in helping them understand and use medical terms.

Contextual Learning Techniques

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The study utilized a variety of contextual learning methods to teach medical terminology:

- **Role-Playing**: Students participated in simulated doctor-patient interactions, using Uzbek medical terms in practical scenarios.
- **Case Studies**: Real-life medical case studies were presented to students, who were required to discuss diagnoses and treatments in Uzbek.
- **Problem-Based Learning (PBL)**: Students worked in groups to solve medical problems using terminology learned in class.
- **Clinical Observations**: Students observed medical professionals in clinical settings and were asked to describe procedures and medical conditions using the correct terminology in Uzbek.

RESULTS.

Quantitative Findings

The pre-test scores indicated that students, on average, correctly identified or understood only 20% of the medical terms in Uzbek. After the 8-week contextual learning intervention, post-test results showed a significant improvement, with an average correct response rate of 75%.

Test Stage	Average Correct Responses (%)
Pre-Test	20%
Post-Test	75%

A paired t-test was conducted to compare the pre-test and post-test scores, revealing a statistically significant difference between the two ($p < 0.01$), indicating that contextual learning had a positive effect on medical terminology acquisition.

Qualitative Findings

From classroom observations, students showed greater confidence when using medical terms in context. They participated more actively during role-plays and demonstrated better comprehension during case study discussions.

The interviews further confirmed the effectiveness of contextual learning. All 10 interviewed students reported that role-playing and clinical observations helped them better understand the use of medical terms in real-life scenarios. One student noted, “I could remember and use terms faster when I saw how they were applied in real-life situations.” Another student added, “The clinical case studies made it easier to remember the terminology because I could connect it with a specific patient or diagnosis.”

DISCUSSION

The findings of this study suggest that contextual learning plays a crucial role in helping Russian-speaking students acquire medical terminology in Uzbek. The significant improvement in post-test scores demonstrates that real-life scenarios and immersion in professional contexts facilitate better retention and understanding of specialized vocabulary.

The results align with previous studies on contextual learning in specialized fields. For instance, Kwon’s (2018) study on medical students learning English terminology through problem-based learning highlighted similar improvements in vocabulary retention and usage. The real-world application of terms appears to anchor the language in practical experience, making it easier for learners to recall and apply what they have learned.

In the case of Russian-speaking students, the transition to Uzbek medical terminology can be particularly challenging due to linguistic differences. The integration of contextual learning not only helps bridge this gap but also fosters a deeper connection between language

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and profession. Furthermore, this method encourages active learning, as students engage in discussions, problem-solving, and simulations that mirror their future work environments.

However, the study also has limitations. The relatively small sample size and the short duration (8 weeks) mean that further research is necessary to determine whether the effects of contextual learning are long-lasting. Additionally, the study was conducted in a controlled classroom environment, which may not fully replicate the complexities of real clinical settings.

CONCLUSION

This study highlights the effectiveness of contextual learning in enhancing the acquisition of medical terminology in Uzbek for Russian-speaking students. Through role-playing, case studies, and clinical observations, students were able to improve their comprehension and retention of specialized vocabulary. The findings suggest that contextual learning offers a practical and engaging approach to teaching medical language, making it a valuable method for educators in similar linguistic and professional contexts.

Future research could expand on these findings by exploring the long-term effects of contextual learning and applying the methodology to a larger, more diverse group of students. Additionally, further studies could examine how this approach impacts students' ability to communicate with patients in real clinical environments.

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