A MULTIMODAL APPROACH TO TEACHING TERMINOLOGY IN ENGLISH: INTEGRATIVE METHOD

Israilova Ilona Khalitovna

(PhD), dotsent

Department of Uzbek and foreign languages, of Tashkent state medical university

email: ilona1israilova@gmail.com

ORCID: https://orcid.org/0000-0001-7275-4897

Research Aim

This study investigates the effectiveness of a multimodal instructional model for teaching anatomical terminology in English to undergraduate medical students. The research is grounded in the premise that language acquisition in medical education should be both cognitively engaging and professionally relevant. The specific aim is to examine how a combination of verbal definitions, labeled anatomical images, and digital simulation tools contributes to students' retention, functional use, and contextual understanding of English anatomical vocabulary. It also seeks to conceptualize a pedagogical framework applicable in multilingual classrooms where English is the medium of instruction in anatomy courses.

Materials and Methods

Instructional intervention was designed around a multimodal methodology that combined three equally weighted elements. First, textual definitions and explanations of anatomical structures were adapted into clear, functional English based on internationally accepted medical standards. These texts introduced lexical units with embedded semantic cues and syntactic patterns typical for anatomical discourse. Second, high-resolution static anatomical diagrams with English labels were used to link terminology to visual form and to train topographical associations within human anatomy. Third, 3D digital simulations allowed students to manipulate, rotate, and isolate anatomical structures while verbally identifying and describing them in English.

Each thematic module—covering topics such as skeletal regions, muscle groups, organ systems, and neuroanatomical pathways—began with guided reading and translation, continued with visual mapping tasks, and concluded with simulation-based oral practice. The structure followed a spiraled immersion approach, increasing in complexity while recycling core terminology across weeks. The pedagogical foundation drew from principles of immersion teaching (Plesnevich, 1977; Vakhitova, 2022) and communicative-task-based strategies through dynamic input (Israilova, 2021; 2023).

Results

The results revealed marked improvements in students' lexical mastery and professional speech patterns following the multimodal instruction. Average vocabulary recognition increased by 29% over

the course of the semester, with a mean post-test score of 87% across the group. Beyond recognition, students showed greater fluency in using anatomical terms in structured oral tasks. When describing spatial relationships between anatomical structures—for example, articulating the position of the pancreas relative to the stomach—students consistently employed appropriate prepositional phrases, singular/plural agreement, and directional adjectives in English.

In simulation-based sessions, over 80% of the participants demonstrated accurate verbal labeling of virtual 3D structures, indicating an effective connection between visual-spatial cognition and linguistic encoding. Students who previously hesitated to speak English in clinical settings showed growing confidence in using technical terms aloud. The presence of manipulable digital models reduced the cognitive load associated with abstract terminology and encouraged active verbal rehearsal.

Observational data further suggested that students in multimodal environments engaged in more peer discussion and corrective feedback exchanges compared to those limited to text-based tasks. Classroom dynamics shifted from instructor-led drills to student-led description and inquiry. Teachers noted increased initiation of English speech and more spontaneous use of descriptive language among the experimental group.

Conclusion

This study affirms the value of a multimodal approach in teaching anatomical English terminology to medical students in a non-native language context. The combination of verbal, visual, and interactive simulation methods creates a layered instructional space where vocabulary becomes not just a memorized list but an actively constructed and applied resource. This pedagogical strategy addresses multiple cognitive channels, improves long-term retention, and equips learners with the functional linguistic skills necessary for academic and clinical settings.

References

1. Plesnevich, A. S. (1977). Theoretical foundations of an accelerated course in English language teaching using the immersion method. Methods of Intensive Language Teaching, Issue 3, 142–148.
2. Timofeev, V. A. (2018). Distinctive features of the immersion method for teaching foreign languages to adult learners of language courses. Young Scientist, No. 1, 387–390.
3. Israilova, I.Kh. (2021). Teaching and Assessing Phonetic Categories in English Language Learning Based on the Results of Authentic Film Viewing. In: International Conference "Assessment in Teaching Foreign Languages: Achievements, Challenges, and Solutions." UzSWLU.
4. Israilova, I.Kh. (2023). The Effectiveness of Teaching Medical English in Developing Communicative Skills Through Authentic Films. Pedagogik Mahorat, No. 2, pp. 136–143.
5. Vakhitova, I. I. (2022). Immersion reading based on limericks. Scientific Statements, No. 13(21), 20–22. Available at: https://nvjournal.ru/article/Immersionnoe_chtenie_na_materiale_limerikov
6. Исраилова И. Методы педагогических исследований, применимые в рамках педагогического эксперимента при изучении медицинского английского языка // Hozirgi zamon tilshunosligining dolzarb muammolari, chet tillar o‘qitish metodikasi masalasi: материалы научно-практической онлайн-конференции. – 2022. – С. 1–6.

7. Исраилова И. Изучение грамматической составляющей английского языка при просмотре аутентичных фильмов // Society and Innovations. – 2021. – Vol. 2, No. 4/S. – С. 718–721. – Impact Factor: 5.119.