# INTEGRATING MULTIMODAL APPROACHES IN ENGLISH FOR MEDICAL PURPOSES: STUDENT NEEDS, ATTITUDES, AND IMPLICATIONS

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**Abstract.** The increasing internationalization of medicine has made English for Medical Purposes (EMP) a critical component of medical education. However, conventional EMP courses frequently rely on textbook-based instruction, memorization of terminology, and teacher-centered practices that do not fully address students’ communicative and professional needs. This article examines the integration of multimodal approaches in EMP through an analysis of student needs, attitudes, and pedagogical implications. Drawing on recent studies in medical English, multimodal pedagogy, technology-enhanced learning, and project-based instruction, the paper argues that combining visual, auditory, textual, and interactive modes improves students’ motivation, comprehension, pronunciation, listening ability, and professional communication.

**Key words:** English for Medical Purposes, multimodal learning, medical students, needs analysis, student attitudes, medical English, technology-enhanced learning.

**Аннотация.** Возрастающая интернационализация медицины сделала английский язык для медицинских целей (EMP) важнейшим компонентом медицинского образования. Однако традиционные курсы EMP часто основываются на обучении по учебникам, запоминании терминологии и преподаватель-центрированных методах, которые не в полной мере учитывают коммуникативные и профессиональные потребности студентов. В данной статье рассматривается интеграция мультимодальных подходов в EMP на основе анализа потребностей студентов, их отношения к обучению и педагогических последствий. Опираясь на современные исследования в области медицинского английского языка, мультимодальной педагогики, обучения с использованием технологий и проектного обучения, автор утверждает, что сочетание визуальных, аудиальных, текстовых и интерактивных форм способствует повышению мотивации студентов, улучшению понимания, произношения, навыков аудирования и профессиональной коммуникации.

**Ключевые слова:** английский язык для медицинских целей, мультимодальное обучение, студенты-медики, анализ потребностей, отношение студентов, медицинский английский язык, обучение с использованием технологий.

**Annotatsiya.** Tibbiyotning tobora xalqaro tus olayotgani English for Medical Purposes (EMP) ni tibbiy ta’limning muhim tarkibiy qismiga aylantirdi. Biroq an’anaviy EMP kurslari ko‘pincha darslikka asoslangan o‘qitish, terminlarni yodlash va o‘qituvchi markazidagi usullarga tayangan bo‘lib, ular talabalarning kommunikativ hamda kasbiy ehtiyojlarini to‘liq qondira olmaydi. Mazkur maqolada EMPda multimodal yondashuvlarni integratsiyalash masalasi talabalar ehtiyojlari, munosabati va pedagogik oqibatlarini tahlil qilish asosida ko‘rib chiqiladi. Tibbiy ingliz tili, multimodal pedagogika, texnologiyaga asoslangan ta’lim va loyiha asosidagi o‘qitish bo‘yicha so‘nggi tadqiqotlarga tayangan holda, maqolada vizual, eshitish, matnli va interaktiv shakllarni birlashtirish talabalar motivatsiyasi, tushunishi, talaffuzi, tinglab anglash qobiliyati va professional muloqotini yaxshilashi ta’kidlanadi.

**Kalit so‘zlar:** English for Medical Purposes (EMP), multimodal ta’lim, tibbiyot talabalari, ehtiyojlar tahlili, talabalarning munosabati, tibbiy ingliz tili, texnologiyaga asoslangan ta’lim.

**Introduction.** English has become the dominant language of international medicine, scientific publication, medical conferences, and cross-border professional communication.

Medical students are increasingly expected to read journal articles, understand clinical documentation, communicate with foreign patients, and participate in international training programs in English. Consequently, English for Medical Purposes has emerged as an important branch of English for Specific Purposes.

Despite the growing significance of EMP, many medical universities still depend on traditional instructional methods that focus primarily on grammar exercises, vocabulary memorization, and reading comprehension. Although such approaches may support knowledge of terminology, they often fail to develop the communicative competence needed in real clinical situations. Medical communication requires not only language accuracy but also listening skills, pronunciation, non-verbal communication, empathy, interaction with patients, and the ability to interpret visual information.

For this reason, scholars have increasingly recommended multimodal approaches to EMP. Multimodal learning refers to the integration of different modes of communication, such as spoken language, written text, audio, video, images, gesture, digital tools, simulations, and collaborative activities. In EMP, these approaches may include medical videos, role-play scenarios, interactive online tasks, visual diagrams, virtual learning environments, games, project-based assignments, and telemedicine simulations.

This article explores three main questions:

1. What are the principal language needs of medical students in EMP courses?
2. What attitudes do students have toward multimodal approaches?
3. What implications do these findings have for EMP curriculum design and teaching practice?

**Literature Review**

EMP differs from general English because it focuses on the language required in medical settings. Medical students need to understand specialized vocabulary, read scientific literature, interpret case reports, communicate with patients, and participate in professional discussions. Previous needs analyses consistently show that students struggle most with speaking, listening, pronunciation, and the use of medical terminology.

Research conducted in different countries demonstrates that medical students perceive English proficiency as essential for both academic success and future employment. Students often emphasize the need to read journal articles, attend international conferences, understand lectures by foreign specialists, and communicate in clinical practice. However, many learners feel that their current English courses do not adequately address these objectives because instruction is often disconnected from real medical contexts.

Another major issue is the imbalance among language skills. Traditional EMP classes usually give priority to reading and vocabulary, while speaking and listening receive less attention. Yet students frequently identify oral communication as their greatest need. They want more opportunities to practice doctor–patient interaction, discuss symptoms, explain treatments, and participate in realistic clinical scenarios.

Multimodal learning is based on the idea that people understand information more effectively when it is presented through multiple forms. Instead of relying only on printed text, multimodal instruction combines linguistic, visual, auditory, and kinesthetic elements. In the language classroom, this may involve videos, pictures, audio recordings, body language, diagrams, interactive tasks, and digital platforms.

The relevance of multimodality is particularly strong in medical education because medicine itself is a multimodal field. Doctors interpret X-rays, charts, body movements, facial expressions, laboratory reports, and verbal descriptions at the same time. Therefore, learning medical English through multiple modes mirrors the communicative reality of healthcare.

Researchers have also noted that multimodal approaches encourage active learning. Rather than acting as passive recipients of information, students become participants who

interact with content, classmates, and technology. This shift supports learner autonomy, critical thinking, and problem-solving.

Recent studies in EMP suggest that multimodal instruction has several advantages. First, videos and audio materials expose students to authentic pronunciation, intonation, and professional communication. Medical dramas, recorded consultations, and instructional videos help learners understand how language is used in real clinical settings.

Second, role plays and simulations enable students to practice communication in safe but realistic situations. Doctor–patient dialogues, emergency room simulations, and case-based discussions allow learners to develop confidence and communicative fluency. Through these activities, students also become more aware of non-verbal communication, including eye contact, gesture, posture, and tone of voice.

Third, digital tools and online platforms increase engagement. Mobile applications, online quizzes, virtual classrooms, gamified vocabulary exercises, and collaborative digital projects provide opportunities for flexible and interactive learning. Students often appreciate these tools because they make EMP more dynamic and relevant.

Fourth, project-based multimodal learning encourages students to integrate language with medical knowledge. For example, students may create a video presentation on a disease, design a patient information leaflet, produce a podcast about healthcare, or prepare a digital case report. Such tasks develop both linguistic competence and professional communication skills.

A growing body of evidence indicates that medical students generally have positive attitudes toward multimodal approaches. Most students report that they find interactive and technology-supported methods more interesting and effective than traditional lessons.

Students particularly value videos because they improve listening comprehension and expose learners to authentic speech. Visual support also helps students understand complex medical concepts and terminology more easily. When spoken language is combined with images, gestures, diagrams, and subtitles, learners are better able to remember information.

Role plays and simulations are also viewed positively because they allow students to experience situations similar to future professional practice. Many learners state that these activities reduce anxiety and help them feel more confident in speaking English. Instead of memorizing isolated vocabulary, students use language in context.

However, not all attitudes are entirely positive. Some students experience difficulties when multimodal tasks require high levels of independent learning or technological competence. Learners with weaker digital skills may initially struggle to use online platforms or multimedia tools. In addition, some students may prefer more structured instruction and feel uncertain in open-ended projects.Another concern is access to resources. Effective multimodal learning requires reliable internet access, suitable classroom technology, projectors, computers, mobile devices, and teacher preparation. In some educational settings, especially in developing contexts, these resources may be limited.

The findings of recent EMP research have important implications for teachers, curriculum designers, and medical universities. EMP courses should begin with a detailed needs analysis. Teachers need to identify which language skills students consider most important, what difficulties they face, and what learning methods they prefer. Surveys, interviews, placement tests, and classroom observation can help instructors design more relevant courses. Because the needs of medical students may vary according to specialization, year of study, and future career plans, EMP curricula should remain flexible. For example, first-year students may need more support with basic terminology and reading, whereas senior students may require advanced communication for clinical practice.

Teachers should combine several modes within each EMP lesson. A typical lesson may include:

- a short medical video or audio recording;
- guided vocabulary and pronunciation practice;
- discussion of a case study;
- role-play of a doctor–patient interaction;
- a collaborative digital task or mini-project.

Such integration ensures that students use English in realistic and meaningful ways. Rather than learning vocabulary in isolation, they apply language to practical situations.

Technology should not be included simply because it is modern. Instead, digital tools must support specific learning objectives. Teachers can use online dictionaries, pronunciation applications, interactive presentations, virtual simulations, discussion forums, learning management systems, and telemedicine scenarios.

Particular attention should be given to developing listening and speaking skills because these areas are often neglected in traditional EMP instruction. Video conferencing, recorded consultations, and online communication tasks can provide valuable opportunities for oral practice.

Many EMP teachers have strong language backgrounds but limited experience with medical content or digital pedagogy. Conversely, medical specialists may possess professional knowledge but lack language-teaching expertise. Therefore, professional development is essential.

Teacher training programs should focus on:

- the principles of multimodal pedagogy;
- the effective use of educational technology;
- methods for teaching medical communication;
- the design of authentic tasks and assessment;
- strategies for integrating language and content.

Teachers also need guidance on how to evaluate multimodal learning. Assessment should measure not only grammar and vocabulary but also communication, interaction, presentation skills, pronunciation, and the ability to use language in realistic contexts.

Although multimodal approaches offer many advantages, several challenges remain.

First, implementing multimodal instruction requires time and preparation. Teachers must select appropriate materials, design activities, and adapt technology to the needs of students.

Second, there may be inequalities in access to digital resources. Students from different social and educational backgrounds do not always have the same opportunities to use technology.

Third, the effectiveness of multimodal learning depends on balance. If too many modes are used at once, students may become overwhelmed or distracted. The goal is not to replace traditional methods completely, but to combine them thoughtfully with interactive approaches.

Finally, more empirical research is needed. Although many studies report positive attitudes toward multimodal EMP, there is still limited evidence about long-term learning outcomes. Future studies should investigate how multimodal instruction influences students' language proficiency, academic achievement, and clinical communication over time.

**Conclusion.** Findings from previous research indicate that medical students consistently prefer videos, simulations, role plays, digital applications, games, online resources, and collaborative projects over traditional lecture-based methods. Students also report that multimodal learning better reflects authentic clinical communication because medical practice itself depends on multiple modes, including speech, body language, visual information, charts, and technology. The integration of multimodal approaches in English for Medical Purposes represents an important direction for contemporary medical education.

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