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**PECULIARITIES OF TEACHING METHODS
IN ORTHODONTIC EDUCATION:
THE TERMINOLOGICAL ASPECT**

In the modern educational landscape, the teaching of orthodontics is undergoing a period of significant transformation. The globalization of higher education, the rapid advancement of dental technologies, and the widespread adoption of English as the lingua franca of science and medicine have greatly influenced the methodology of teaching orthodontic disciplines [1, p. 12; 6, p. 57]. In this context, English has become not only a means of international communication but also a primary tool for acquiring and disseminating professional knowledge. Consequently, the ability to teach orthodontics in English is now regarded as a vital professional skill for both educators and students in medical universities [7, p. 75].

Orthodontics, as a branch of dentistry, possesses a highly specialized and complex system of terminology. It encompasses a vast number of terms derived from anatomy, physiology, biomechanics, and materials science, as well as newly coined words that reflect the latest innovations in dental

technologies [1, p. 28]. Accurate understanding and proper usage of these terms are essential for describing diagnostic procedures, explaining treatment methods, and documenting clinical cases. Therefore, terminological competence becomes a key component of orthodontic education [5, p. 19].

Teaching orthodontic terminology in English, however, presents a number of linguistic and methodological challenges. Firstly, many terms have no direct equivalents in the learners' native language, which complicates comprehension and translation [2, p. 41; 3, p. 46]. Secondly, there exists a high degree of variation in terminology across different English-speaking countries and professional schools, leading to potential confusion among students [4, p. 52]. Finally, since orthodontics is a practice-oriented discipline, the integration of language learning with clinical experience is essential but not always easily achieved [7, p. 78].

In light of these challenges, educators must employ innovative, interdisciplinary teaching approaches that combine linguistic precision with practical applicability [6, p. 59]. The terminological aspect of teaching orthodontics in English is therefore not merely a matter of vocabulary acquisition, but a crucial element of professional competence formation. A well-structured system of teaching methods that focuses on terminology enhances students' ability to engage with international research, participate in academic discussions, and apply their knowledge effectively in real clinical practice [1, p. 33; 3, p. 58].

The relevance of the study is determined by the growing need to ensure high-quality professional communication in the field of orthodontics within an international academic and clinical environment [5, p. 21]. In today's globalized context, future orthodontists and dental specialists are increasingly required to participate in international conferences, publish research findings in English-language journals, and collaborate with colleagues from different linguistic and cultural backgrounds. Therefore, mastering orthodontic terminology in English is no longer optional but a fundamental component of professional training [3, p. 49].

Another factor that emphasizes the relevance of this research is the expansion of bilingual and English-medium programs in medical universities across Europe and beyond [7, p. 79]. These programs demand innovative methodological approaches that integrate the study of subject-specific terminology with the development of communicative competence [1, p. 29; 4, p. 54]. The traditional translation-based approach is often insufficient for the dynamic and interdisciplinary nature of modern orthodontics, which requires students to comprehend and apply terminology in real clinical and academic contexts [2, p. 44].

Thus, the study of terminological aspects in teaching orthodontics in English is relevant not only from a linguistic perspective but also from a professional and pedagogical one. It contributes to the formation of competent, internationally oriented specialists capable of integrating linguistic precision with clinical expertise [4, p. 59].

The methodology of teaching orthodontics in English is grounded in several interrelated linguistic and pedagogical theories. From a linguistic standpoint, the study relies on the principles of English for Specific Purposes (ESP), which emphasize the adaptation of language instruction to the specific needs of learners in a professional field [3, p. 51]. Within the ESP framework, terminological competence plays a central role, as it enables learners to accurately perceive, interpret, and produce specialized discourse [6, p. 64].

Another theoretical foundation is the Communicative Language Teaching (CLT) approach, which prioritizes the use of language in authentic contexts [7, p. 77]. In orthodontic education, this means that students should not only memorize terms but also apply them while discussing treatment plans, describing malocclusions, analyzing X-rays, and writing case reports [1, p. 31]. The integration of communicative tasks facilitates both linguistic accuracy and fluency, bridging the gap between academic study and clinical application [3, p. 55].

From a cognitive perspective, the development of terminological competence is supported by concept-based learning. Each orthodontic term represents a distinct professional concept, which students must internalize through association with real-life phenomena, visual materials, and procedural knowledge [2, p. 43]. The process of conceptualization ensures that terminology is not learned mechanically but embedded in a broader system of professional understanding [4, p. 58].

Finally, didactic principles of professional education — such as systematicity, interdisciplinarity, and professional relevance — guide the organization of the learning process [6, p. 62]. The inclusion of authentic materials (clinical articles, diagnostic manuals, conference abstracts) allows students to acquire terminology in a realistic professional context [1, p. 37; 7, p. 80]. In this way, the methodology combines linguistic training with the development of professional thinking and intercultural competence.

Firstly, translation enables access to the latest international research and clinical guidelines [2, p. 42]. Most scientific literature, research papers, and methodological manuals in orthodontics are published in English. Accurate translation of these materials allows students and professionals to stay up to date with modern techniques, technologies, and treatment approaches [5, p. 20]. Misinterpretation or mistranslation of even a single term may lead to

errors in clinical practice, so the precision of translation is of utmost importance [4, p. 57].

Secondly, translation supports the process of standardizing orthodontic terminology [1, p. 26; 5, p. 25]. In many cases, English-language terms have no direct equivalents in other languages, requiring translators and educators to develop accurate descriptive or functional translations [2, p. 47]. This contributes to the formation of a unified professional lexicon and ensures consistency in teaching materials and clinical communication [6, p. 65].

Thirdly, translation helps develop students' linguistic and cognitive skills. By engaging with bilingual materials, learners become more aware of how concepts are structured and expressed across languages [3, p. 53]. This process enhances both their professional and linguistic competence, allowing future orthodontists to participate in international conferences, collaborate in research projects, and communicate effectively with colleagues worldwide [7, p. 76].

In conclusion, translation in orthodontic methodology teaching is not only a linguistic activity but also an intellectual and professional bridge that connects theory and practice, local and global knowledge [5, p. 22]. It ensures terminological accuracy, fosters standardization, and promotes intercultural communication in the rapidly evolving field of orthodontics [1, p. 39; 6, p. 66].

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