

*Lysanets Yu. V., Bieliaieva O. M.*  
**Ukrainian Medical Stomatological Academy, Poltava**  
*Anthony Robinson*  
**CELTA visiting lecturer, York, United Kingdom**

### **INTERACTIVE STRATEGIES IN MEDICAL EDUCATION**

*У статті досліджено методологічний потенціал інтерактивного підходу в контексті викладання англійської мови за професійним спрямуванням у медичному виші. Дослідження може бути цікавим викладачам англійської мови як іноземної у медичних вишах, а також фахівцям з інших професійних галузей, у процесі планування навчальних занять та розробки навчально-методичних матеріалів.*

**Ключові слова:** *інтерактивний підхід, електронна платформа, комунікативні навички, англійська мова за професійним спрямуванням.*

*The article examines the methodological potential of interactive approach in the context of teaching English for Professional Purposes at a medical university. The research may be of interest to ESOL teachers who train medical students, as well as to educators from other academic contexts, in the process of planning of training sessions and developing teaching materials.*

**Keywords:** *interactive learning, digital education platform, communication skills, English for Professional Purposes.*

*В статье исследован учебно-методологический потенциал интерактивного подхода в контексте преподавания английского языка для профессиональных целей в медицинском вузе. Данное исследование может представлять интерес для преподавателей английского языка как иностранного в медицинских вузах, а также для специалистов из других профессиональных областей, в процессе планирования учебных занятий и разработки учебно-методических материалов.*

**Ключевые слова:** *интерактивный подход, электронная платформа, коммуникативные навыки, английский язык для профессиональных целей.*

New American lecture (also referred to as “interactive lecture”) provides teachers with a new strategic method for classroom design [1; 3; 4]. The earliest ideas about this strategy can be observed in the research by David Ausubel (1963), and this concept has significantly evolved up to now [2; 5; 6]. The aim of the present research is to examine the methodological potential of interactive approach in the context of teaching English for Professional Purposes at a medical university.

The following methods for interactive learning are feasible in higher medical education:

1. Introducing a “hook” – i.e., beginning a class with an interesting or controversial question that acts as a “warm-up”. A “hook” is intended to capture the students’ attention, to activate their sensory memory and refer to prior knowledge. By applying a “hook”, the teacher manages to connect the students’ responses with the content of the lesson.

2. Using a misconception / bad example – e.g., incorrect assumptions, wrong applications and asking students to “diagnose” the problem with it.

3. Making students “earn” information: instead of telling students what you think is important for them to know, it is relevant to first pose a question or a problem and get students to predict an answer.

4. Peer explanation – inviting students to discuss the key concepts with their peers, and then summarize them in 1-2 sentences.

5. One-minute summary: making students to pause, reflect and write a 1 minute summary of what they have learnt.

6. Introducing polls, quizzes and surveys. A simple way to check understanding of a topic is to intersperse the class with interactive questions. These can act to check on knowledge retention and understanding during a lesson, encourage greater participation and debate by students, and generally energize the audience. Using such tools as student response systems, mobile phones or tablets and web-based tools, students can respond anonymously and immediately compare themselves with the rest of the group. Interactive class incorporates information from visual, auditory, physical, and emotional sources; in such a way, the instruction material is stored in multiple parts of the brain, thereby deepening the connection and facilitating memorizing. In particular, applying such online platforms as *Kahoot* and *Quizlet* can be highly beneficial for engaging the audience and formative assessment. Yet another effective way to change the dynamic of classes is to introduce activities prior to, or following, the lesson, such as watching and discussing video and audio materials in English for Professional Purposes.

The following lesson outline features the major techniques of interactive learning as described above.

### LESSON OUTLINE

**Target audience:** 1st year dental students    **Competence in medical English:** Beginner

**Lesson topic:** Essential Vocabulary for Careers in Dentistry

**Lesson objectives:** to focus on different dental specialties and their terminology features (diseases and conditions; diagnostics and treatment methods; tools and instruments); to identify common term elements and lexical units, forming the professional vocabulary in endodontics, oral surgery and maxillofacial radiology, orthodontics, etc.

**Rationale:** Mastering the professional vocabulary in different dental specialties will guide students through the basics of English terminology in dentistry, as well as scaffold their choice of a future career.

**Expected learning outcomes:** by the end of the lesson, students are expected to develop understanding of basic English vocabulary in different dental careers.

**Materials and resources:** PPT presentation, laptop and projection screen, videos on various dental specialties, the *Kahoot* quiz.

I. **Introduction.** Welcome words and lesson objectives.

1. **The “hook”** – discussing the picture at the slide (metaphorical representation of malocclusion and orthodontic appliances). Questions to students:
  - ✓ What dental specialty is represented in this picture?
  - ✓ How do we know it?
  - ✓ What dental condition is depicted here?
  - ✓ What dental appliances are used?
2. Outlining the relevance of the lesson topic on the basis of students’ answers: Each dental specialty has its **unique framework of professional vocabulary**, represented by a **specific range of terminological units**. Specialized vocabulary covers the most important phenomena and processes within a particular dental career, such as names of diseases, diagnostic and treatment methods, tools, devices, procedures and so on. Professional vocabulary forms a **terminological backbone** and a **comprehensive conceptual image** of each dental specialty in our perception. Specialized vocabulary is a **key to understanding** a particular area in dentistry, **comprehension** of its functions and purposes, as well as **effective communication** in its framework.

## II. **Common dental specialties**

III. **Orthodontics:** Aims and scope of activities. Major lexical features. Video “Dental Brackets”. Feedback from students. Answering questions and discussion:

- a. How are brackets attached to teeth?
- b. What is their function?
- c. What are the material variations of brackets?
- d. What are the two types of brackets by method of attachment?
- e. How are lingual brackets applied? Whom are they suitable for?
- f. What two aspects are highly important while attaching the brackets? Why are they essential?

IV. **Therapeutic Dentistry:** Aims and scope of activities. Major lexical features. Video “Dental Caries”. Feedback from students. Answering questions and discussion:

- a. At what parts of a tooth does caries most commonly develop?
- b. What is the cause of caries?
- c. How can caries be prevented?
- d. What oral hygiene habits are recommended?
- e. For how long is it necessary to brush one’s teeth?

V. **Periodontics:** Aims and scope of activities. Major lexical features. Video “Scaling and Root Planing”. Feedback from students. Answering questions and discussion:

- a. What are the causes of gum diseases?
- b. What are the consequences of progressed periodontitis?
- c. How are periodontic procedures called?
- d. What instruments are usually used in periodontic treatment?
- e. How many appointments are usually required?

VI. **Endodontics:** Aims and scope of activities. Major lexical features. Video “Root Canal Treatment”. Feedback from students. Answering questions and discussion:

- a. When is RCT performed?
- b. What are the causes of pulp death?
- c. Why is it important to isolate the tooth during RCT?
- d. What instruments are used in RCT?
- e. What is an alternative to RCT?
- f. What are the risks involved in RCT?

VII. **Oral and Maxillofacial Surgery:** Aims and scope of activities. Major lexical features. Video “Impacted Wisdom Teeth Removal”. Feedback from students. Answering questions and discussion:

- a. When do wisdom teeth usually erupt?
- b. What are the consequences of impacted wisdom teeth?
- c. What instruments are used during impacted wisdom teeth removal?

VIII. **Conclusions. Answering questions. The Kahoot quiz.**

Thus, interactive learning has a high potential and feasibility in medical education. In our opinion, it is necessary to further study this direction of teaching in order to disclose the most relevant methods of instruction and identify potential challenges which may arise in the process of implementing this technique.

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