

The Role of Learning Skill Sessions in Supporting Novice Medical Students' Adaptation from High School to University

Khaeriah Amru^{1,2*}, Asty Amalia Nurhadi^{1,2}, Sansi Anugerah Hamka¹, Andi Atikah Alyani¹, Fristya Langkole¹, St. Hardianty Ayu Resky¹, Regita Indah Cahyani¹, Muh. Alim Nur Yaqin³

¹Program Studi Sarjana Kedokteran, Fakultas Kedokteran, Universitas Mega Buana Palopo

²Fakultas Kedokteran, Universitas Hasanuddin, Indonesia

³Fakultas Kedokteran, Universitas Negeri Gorontalo, Indonesia

*Correspondence: Khaeriah Amru. Address: Jalan Opu Tosappaile No.77, Lagaligo, Kec Wara, Kota Palopo, Sulawesi Selatan, Indonesia; Email: khaeriah@umegabuana.ac.id

Received: 2 Maret 2025 ◦ Revised: 15 April 2025 ◦ Accepted: 20 April 2025

ABSTRACT

The transition from high school to medical school poses considerable challenges, particularly in adapting to the complexity and breadth of medical knowledge. Conventional teaching approaches may be insufficient in facilitating this transition, necessitating the implementation of more interactive and student-centered learning strategies. Faculty of Medicine Universitas Mega Buana Palopo (FK UMBP) addresses this by incorporating active learning in the curriculum. This study aims to investigate the initial perceptions of undergraduate medical students following their participation in an active learning training session, focusing on its perceived effectiveness, encountered challenges, and areas for improvement. This study employed a qualitative research design to explore first-year medical students' initial experiences with active learning. A total of 50 students participated in a five-day active learning training session, which included techniques like Jigsaw, Think-Pair-Share, and Mini-Team-Based Learning, and Fish-bowl technique. Data was collected via open-ended questionnaires, which were analyzed thematically. Students reported positive experiences, highlighting enjoyment, teamwork, and improved communication. They valued the interactive methods, which enhanced creativity, critical thinking, and comprehension. Challenges included comprehension difficulties, technical issues, and group dynamics. Feedback indicated that active learning effectively supports academic and interpersonal skill development. However, technical problems and group coordination issues suggest areas for improvement. Students recommended incorporating more interactive strategies and streamlining learning processes. Active learning facilitated the transition to medical school, fostering both academic growth and social interaction. Despite minor challenges, findings support its continued implementation and refinement at FK UMBP.

ABSTRAK

Transisi dari jenjang sekolah menengah ke pendidikan kedokteran menghadirkan tantangan yang signifikan, khususnya dalam hal adaptasi terhadap kompleksitas dan cakupan luas ilmu kedokteran. Pendekatan pembelajaran konvensional dinilai kurang memadai dalam memfasilitasi transisi ini, sehingga diperlukan penerapan strategi pembelajaran yang lebih interaktif dan berpusat pada mahasiswa. Fakultas Kedokteran Universitas Mega Buana Palopo (FK UMBP) menjawab tantangan ini dengan mengintegrasikan pembelajaran aktif dalam kurikulum. Penelitian ini bertujuan untuk mengetahui persepsi awal mahasiswa kedokteran sarjana setelah mengikuti pelatihan pembelajaran aktif, dengan fokus pada efektivitas yang dirasakan, tantangan yang dihadapi, serta aspek-aspek yang perlu diperbaiki. Penelitian ini menggunakan desain penelitian kualitatif untuk menggali pengalaman awal mahasiswa tahun pertama terhadap pembelajaran aktif. Sebanyak 50 mahasiswa mengikuti pelatihan pembelajaran aktif selama lima hari, yang mencakup teknik seperti *Jigsaw*, *Think-Pair-Share*, *Mini Team-Based Learning*, dan *Fishbowl*. Data dikumpulkan melalui kuesioner dengan pertanyaan terbuka dan dianalisis secara tematik. Mahasiswa melaporkan pengalaman yang positif, menyoroti rasa senang, kerja tim, dan peningkatan kemampuan komunikasi. Mereka menghargai metode interaktif yang mampu meningkatkan kreativitas, berpikir kritis, dan pemahaman materi. Tantangan yang dihadapi meliputi kesulitan memahami materi, kendala teknis, serta dinamika kelompok. Umpan balik yang diberikan menunjukkan bahwa pembelajaran aktif efektif dalam mendukung pengembangan kemampuan akademik dan keterampilan interpersonal. Namun, beberapa kendala teknis dan permasalahan koordinasi kelompok menjadi catatan penting untuk perbaikan. Mahasiswa merekomendasikan agar lebih banyak strategi interaktif diterapkan dan proses pembelajaran disederhanakan. Secara keseluruhan, pembelajaran aktif membantu proses transisi ke pendidikan kedokteran, serta mendorong pertumbuhan akademik dan interaksi sosial. Meskipun terdapat tantangan minor, temuan ini mendukung penerapan dan penyempurnaan pembelajaran aktif secara berkelanjutan di FK UMBP.

Keywords: *active learning; medical education; student-centered learning; transition to medical school*

Introduction

The transition from high school to medical school poses considerable challenges for students, particularly in adapting to the substantial volume of information, complex medical terminology, and the necessity for efficient learning strategies.(1) Conventional high school learning approaches may be inadequate, necessitating the adoption of more structured and self-directed study methods.(2) Medical education is characterized by an extensive and time-constrained curriculum, requiring innovative pedagogical strategies that enhance knowledge retention and the application of medical concepts.(3) Student-centered learning has emerged as an effective approach, emphasizing active engagement over passive knowledge acquisition.(4,5)

Active learning is particularly crucial for novice medical students as it promotes deeper understanding, critical thinking, and clinical reasoning skills—essential competencies for future healthcare professionals. By actively engaging with the material through problem-solving, discussions, and collaborative learning, students develop the ability to integrate theoretical knowledge with practical application.(5-7) Additionally, active learning fosters adaptability, teamwork, and lifelong learning habits, which are fundamental for success in medical education and professional practice.(7-8)

At the Faculty of Medicine, Universitas Mega Buana Palopo (FK UMBP), active learning has been systematically integrated into the undergraduate medical curriculum to expose students to interactive learning methodologies early in their academic journey. Despite the well-documented benefits of active learning, limited research has explored how novice medical students perceive and adapt to these methods during initial exposure. Understanding their first impressions is essential for optimizing instructional strategies and enhancing academic transition. Thus, this study aims to investigate the initial perceptions of undergraduate medical

students following participation in an active learning training session.

Methods

Setting

This study was conducted in the Undergraduate Medical Program of FK UMBP in September 2024. The study employed a purely qualitative research design, focusing on students' perceptions and experiences with active learning. By understanding their initial impressions, the study aimed to assess the effectiveness of early exposure to these methods.

Participants

The participants were all first-year undergraduate medical students enrolled in the program who participated in an active learning training session. Since these students had no prior exposure to structured active learning methods, their feedback provided valuable insights into how novice learners adapt to student-centered teaching approaches.

Study Procedure

The study was conducted over five days, with each day dedicated to a different active learning method. The structured exposure allowed students to experience various techniques and reflect on their learning process. The breakdown of activities was as follows:

- **Day 1:** Training on the Jigsaw learning method (9), where students worked in expert groups before sharing knowledge with their peers.
 - **Day 2:** Training on Think-Pair-Share (10), encouraging students to think critically, discuss in pairs, and share insights with the class.
 - **Day 3:** Training on Mini-Team-Based Learning (Mini-TBL) (11–13), a collaborative approach that fostered problem-solving and teamwork skills.
 - **Day 4:** Training on Fishbowl (14) Discussion, which helped students develop active listening and structured argumentation.
 - **Day 5:** Implementation of a Treasure Hunt-Game Based Learning, which integrating all
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four previously taught active learning methods in an engaging and interactive format.

Data Collection

A non-probability sampling approach was used, where all students were expected to complete an open-ended questionnaire via the e-learning platform. The questionnaire focused on evaluating their experiences with active learning, their impressions, and suggestions for future improvements. This method ensured that all participants had the opportunity to express their thoughts freely, capturing a wide range of perspectives.

Data Analysis

Responses from the e-learning platform were extracted and analyzed using thematic analysis to identify recurring themes in students' feedback. The analysis aimed to uncover patterns in their perceptions, challenges faced, and potential benefits of active learning. Data validity was ensured through triangulation with others authors, reducing bias and increasing the reliability of the findings.

Results

Positive Experiences

The majority of students expressed a highly positive outlook on their learning experiences. They reported *Positive Emotional Experiences*, often describing the sessions as *enjoyable* and *exciting* (e.g., "very enjoyable," "very exciting," "fun"), which made learning more engaging and less monotonous. Furthermore, *Teamwork and Group Cohesion* were significant themes, with students noting that the sessions enhanced cooperation within their groups, fostering better communication and solidarity. This contributed to improved peer interaction and group dynamics.

Another key benefit was *Social Interaction* and *Closer Relationships*, with students mentioning that they formed new friendships and became closer to their classmates, enhancing their openness to others. Additionally, *Skills Development* was highlighted, with students

gaining improvements in creativity, patience, and critical thinking. Many also found the learning methods easier to comprehend and beneficial in understanding the material. Lastly, students appreciated *Attractive Teaching Methods*, especially those that were unconventional, as they found these methods not only engaging but also easier to grasp.

Negative Experiences

While the overall response was positive, there were some *Negative Experiences*. A small number of students mentioned *Difficulty Understanding the Material*, with some expressing that they struggled to keep up with certain topics, such as in cases where they were "slow to respond to the topic." Others noted challenges with the teaching method, particularly repetitive errors in a component of active learning involving the multiplechoice question system, as well as occasional issues with links in e-learning platforms, which disrupted the learning experience.

In terms of *Social Interaction and Group Dynamics*, a few students indicated difficulty adjusting to peers with different personalities, requiring patience and tolerance. *Minor disagreements* within groups were also noted, although they were not considered significant. Additionally, *Fatigue and Activity Load* were mentioned by one student, who stated that while no major negative experiences occurred, the physical energy required in the sessions was draining.

Suggestions

The majority of students provided valuable suggestions for improving the learning system at FK UMBP. *Enjoyable and Engaging Learning Experiences* were a common theme, with students expressing a desire for the system to remain or become even more enjoyable, exciting, and motivating to foster continued enthusiasm for learning. Many students also hoped for Improvement in *Quality and Accreditation*,

wishing to see the system's quality increase and for FK UMBP to achieve superior accreditation.

There was a strong demand for *More Varied and Effective Teaching Methods*, with students suggesting the integration of more e-learning, jigsaw, and mini-Team-Based Learning (TBL) methods to improve comprehension and engagement. Students also wished for a *Smooth and Convenient Learning Process*, desiring a

more streamlined learning experience that was easy to follow, despite some challenges. Finally, many students emphasized the importance of *Enhanced Collaboration and Teamwork*, hoping for more collaborative learning environments to further strengthen group cohesion and improve understanding of the material. The detailed themes of Positive Experiences, Negative Experiences, and Suggestions can be found in table 1.

Table 1. Thematic Analysis of Student Perspectives on Learning Experiences: Positive, Negative, and Suggestions

Category	Positive Experiences	Negative Experiences	Suggestions
Emotional Experience	Learning is fun and exciting, not boring	The majority did not experience negative aspects, some had difficulty understanding the material	The learning system remains or becomes more enjoyable and engaging
Teamwork and Cohesion	Enhances teamwork and solidarity within groups	Adapting to peers with different personalities, differences of opinion within the group	Improving teamwork and cohesion in learning
Social Interaction	Making new friends, increasing closeness, better communication	-	Enhancing social interaction in the learning process
Skills Development	Enhances creativity, patience, critical thinking, and material comprehension	-	Learning becomes more effective in developing students' skills
Learning Methods	Unique methods, providing new experiences, helping with material comprehension	Technical issues such as link errors, MCQs causing frustration	More varied and effective learning methods (e-learning, jigsaw, TBL, etc.)
Smooth Learning Process	-	Fatigue due to learning intensity, slow material comprehension	The learning system runs smoothly, without obstacles, and is easier to understand
Quality Improvement and Accreditation	-	-	Hopes that the learning management system continues to improve and FK UMBP achieves top accreditation

Discussions

The thematic analysis of the responses highlights several important aspects of the Learning Skill sessions. The majority of participants reported that the sessions were enjoyable and exciting, contributing to the

development of teamwork, camaraderie, and improved communication among peers. This positive emotional experience was a crucial element in fostering a more engaging learning environment.(15) Furthermore, the interactive teaching methods employed were praised for

enhancing students' understanding of the material, stimulating creativity, and fostering critical thinking. These outcomes demonstrate the effectiveness of the approach, which extended beyond academic benefits to positively impact social and interpersonal skills as well.(16)

Overall, the Learning Skill sessions provided a positive impact not only on academic achievement but also on social interaction and interpersonal skills. This aligns with previous research suggesting that collaborative and engaging learning experiences can foster both cognitive and social development in students.(6) The focus on group dynamics, communication, and problem-solving skills aligns with contemporary educational approaches that emphasize the importance of soft skills alongside technical knowledge.(17,18)

Although the experiences were predominantly positive, a few challenges emerged. Some students reported difficulty in understanding certain topics, which highlights the need for continued refinement of learning instruction to ensure all students can follow the material effectively. Technical issues within the learning system were also noted, such as difficulties with the multiple-choice questions system and broken links in e-learning platforms. These technical glitches, while minor, point to the importance of early recognition of the learning management system and reliable digital tools to support the learning process. Moreover, group cooperation was cited as a challenge for some, especially when working with peers who have different personalities. This suggests that while group work fosters collaboration, it can also bring to light interpersonal dynamics that may require additional guidance on how to navigate effectively.(19) Fatigue from intensive activities was another concern, indicating the need for balance in workload to avoid overwhelming students.

Looking ahead, students expressed several expectations for the future of the learning system at FK UMBP. They overwhelmingly hoped for the learning environment to remain enjoyable, with continued emphasis on engagement and excitement. This highlights the role of motivation in student success, as engaging learning experiences can drive further academic involvement.(20) Additionally, students wished for an improvement in academic quality and the achievement of superior accreditation, underlining the desire for higher standards and recognition of their educational institution. There was also a call for more varied and interactive learning methods. Students expressed a preference for methods like Team-Based Learning (TBL), and Jigsaw, which they believe would further enhance their learning experience. Additionally, they hoped for smoother learning management systems that are easier to follow and more accessible. The desire for a collaborative approach was clear, with students emphasizing the importance of working together to enhance understanding and success.

Conclusion

The Learning Skill sessions at FK UMBP were highly engaging, enhancing academic and interpersonal skills such as teamwork, communication, and critical thinking. These sessions were particularly beneficial for students transitioning from high school to medical school. Students found the teaching methods enjoyable and effective, improving understanding and creativity. While some challenges were noted, such as difficulties in material comprehension and technical issues, the overall experience was positive. Students expressed a desire for continued enjoyment, improved academic quality, more interactive methods, and better collaboration, highlighting the importance of refining the learning system to meet their needs.

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