Digital Problem-Based Learning: A New Approach to Medical Education

*Jyoti Arora[1], Arijita Banerjee[2], Kavita Goyal[3]
[1] Associate Prof, [3] Assistant Prof, , Department of Physiology SABVGMC, Chhainsa, [2]Assistant Prof, Dr BC Roy Multi-speciality Medical Research Centre, Department of Physiology, IIT Kharagpur
*Presenting Author: 9873791921, dr.arorajyoti808@gmail.com

Introduction

In medical education, Problem-Based Learning (PBL) plays a crucial role in developing skills such as collaboration, critical thinking, decision-making, and self-directed learning. However, traditional PBL is time-consuming and requires physical space and skilled tutors. In contrast, Digital Problem-Based Learning (DPBL) uses digital platforms to provide effective online learning.

Objective

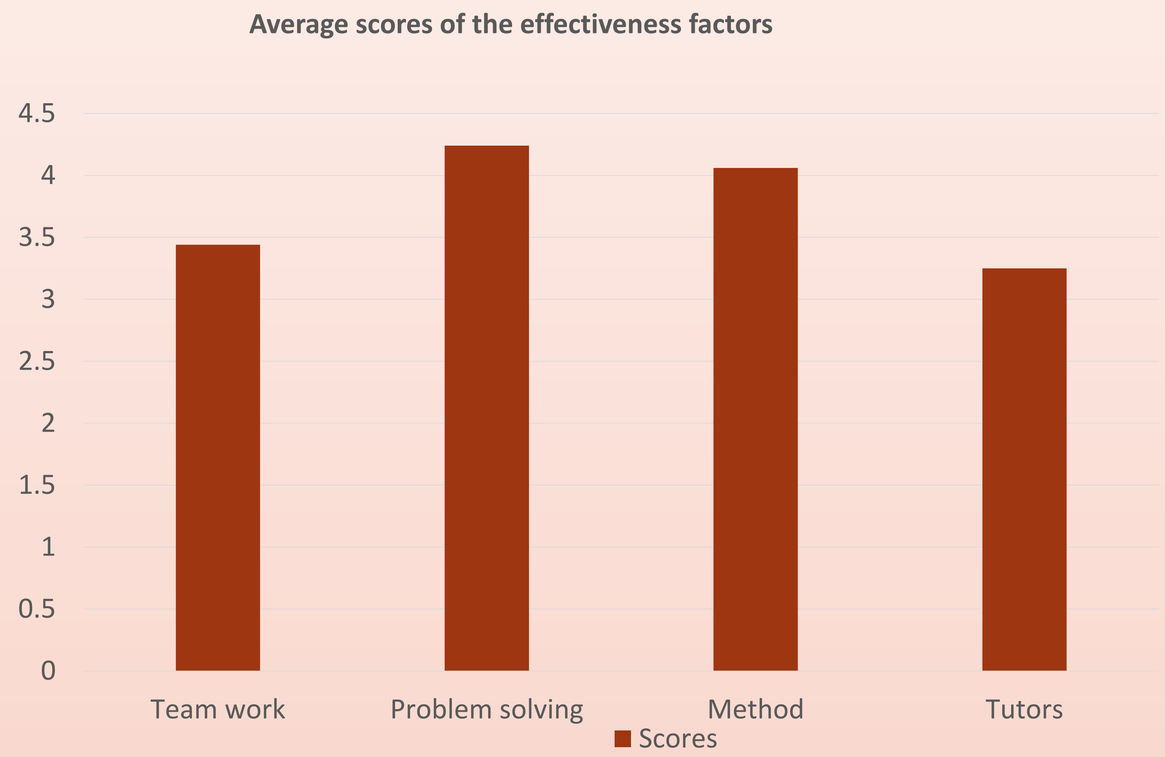
To evaluate students' perceptions of the effectiveness of Digital Problem-Based Learning (DPBL) in enhancing collaboration, problem-solving, and self-directed learning.

Methodology

The study was conducted with 150 first-year MBBS students The units covered included Cardiovascular Physiology and Respiratory Physiology. The topics covered were- Arrhythmia, Hypertension, Bronchial Asthma. Total of 6 DPBL sessions (2 sessions for each topic) were held, each lasting for 2 hours. The first session of one topic (held online) was student-led, with extensive use of digital IT resources. The second session (held online) was tutor-led, utilizing multimedia tools like online videos, interactive white board or virtual patients simulations. Feedback was collected through a structured questionnaire on Google Forms, followed by thematic analysis.

Results

Thematic analysis identified four key themes: Guidance, Problem Solving, Collaborative Learning, and Digital Learning. DPBL was found to be more effective than traditional PBL in terms of student interaction and engagement. Students appreciated the flexibility and accessibility of the digital learning platforms, although some faced challenges with technology, especially those from rural areas.



Discussion

DPBL is shown to be an effective tool for medical education, offering a more interactive and engaging learning experience. The feedback indicates that smaller group sizes and the use of digital tools enhanced students' understanding and involvement. However, challenges like digital access in rural areas need to be addressed.

Conclusion

DPBL has proven to be an effective and engaging educational tool. It not only enhances student interaction and critical thinking but also allows for flexible learning, making it a valuable tool for future medical education, especially in times of crisis.

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