

DOI: <https://doi.org/10.56936/18290825-4.v18.2024-98>**USING CHATGPT TO CREATE ENGAGING PROBLEM-BASED LEARNING SCENARIOS IN ANATOMY: A STEP-BY-STEP GUIDE****KARRAR ALSHARIF M.H.<sup>1\*</sup>, ELAMIN A.Y.<sup>2</sup>, ALMASAAD J.M.<sup>3,4</sup>, BAKHIT N.M.<sup>5</sup>,  
ALARIFI A.<sup>6,7</sup>, TAHA K.M.<sup>8</sup>, HASSAN W.A.<sup>9</sup>, ZUMRAWI E.<sup>9</sup>**<sup>1</sup> Department of Basic Medical Sciences, College of Medicine, Prince Sattam Bin Abdulaziz University, Al Kharj, Saudi Arabia<sup>2</sup> Department of Histology and Embryology, Faculty of Medicine, Ondokuz Mayıs University, Samsun, Turkey<sup>3</sup> Department of Basic Medical Sciences, College of Medicine, King Saud Bin Abdul Aziz University for Health Sciences, Jeddah, Saudi Arabia<sup>4</sup> King Abdullah International Medical Research Centre, King Abdulaziz Medical City, Jeddah, Saudi Arabia<sup>5</sup> Department of Anatomy, College of Medicine and Medical Sciences, Arabian Gulf University, Manama, Bahrain<sup>6</sup> Department of Basic Sciences, College of Science and Health Professions, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia<sup>7</sup> King Abdullah International Medical Research Center, King Abdulaziz Medical City, Riyadh, Saudi Arabia<sup>8</sup> Department of Anatomy, Faculty of Medicine, Omdurman Islamic University, Omdurman, Sudan<sup>9</sup> Education Development and Research Centre, Faculty of Medicine, University of Gezira, Sudan*Received 19.12.2023; Accepted for printing 10.11.2024***ABSTRACT**

**Background:** Problem-based learning is widely recognized for its ability to foster active learning and critical thinking in medical education. However, creating effective problem-based learning scenarios demands a high level of expertise. Leveraging the natural language capabilities of ChatGPT, educators can now receive assistance in designing engaging anatomy problem-based learnings.

**Objective:** This paper aims to provide a comprehensive guide on collaborating with ChatGPT to generate ideas, develop content, and create supporting materials for anatomy problem-based learning scenarios.

**Material and methods:** Our methodology involved an analysis of literature on problem-based learning best practices and experimentation on content creation using ChatGPT. The outputs were refined based on valuable feedback obtained from both educators and students.

**Results:** This guide emphasizes crucial aspects such as defining clear learning objectives, ensuring academic rigour, and aligning the problem-based learning scenarios with the curriculum. By harnessing ChatGPT's conversational abilities, educators can collaboratively co-create problem-based learning scenarios that are engaging and effective.

**Conclusion:** This human-artificial intelligence collaborative approach to anatomy problem-based learning design underscores the importance of maintaining oversight over the content generated by ChatGPT. Further research is necessary to quantify the impact of ChatGPT as a supplementary resource. Purposeful integration of ChatGPT, in alignment with pedagogical goals, has the potential to enhance engagement and learning outcomes, particularly for digitally native students.

**KEYWORDS:** problem-based learning, anatomy education, ChatGPT, learning objectives, artificial intelligence integration.

**CITE THIS ARTICLE AS:**

Karrar Alsharif M.H., Elamin A.Y., Almasaad J.M. et al. (2024). Using ChatGPT to create engaging problem-based learning scenarios in anatomy: a step-by-step guide. The New Armenian Medical Journal, vol.18(4), 98-106; <https://doi.org/10.56936/18290825-4.v18.2024-98>

**ADDRESS FOR CORRESPONDENCE:**

Dr. Mohammed H. Karrar Alsharif

Department of Basic Medical Sciences, College of Medicine Prince Sattam Bin Abdulaziz University, Al Kharj, KSA Al-Kharj 16278, Saudi Arabia

Tel.: +00966552644088

E-mail: m.alsharif@psau.edu.sa