



## Artificial Intelligence Literacy in Nursing Education: The Role of the Educator Hemşirelik Eğitiminde Yapay Zeka Okuryazarlığı: Eğitimcinin Rolü

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Dear Editor,

We are writing this letter to draw attention to the role of nurse educators' regarding artificial intelligence literacies (AIL) in nursing education. As we know, Generative AI (GenAI) is a student-centered education that has become widely used and an integral part of nursing education with the potential to transform educational tools (1-3). Using GenAI in nursing education offers many opportunities to enhance students' critical thinking, problem-solving skills, and learning satisfaction (4). Artificial intelligence (AI) tools in education have many positive effects on the learning and teaching process and foster interaction between students and educators (5). GenAI's feedback function improves the learning process, environment, and student performance of communication skills and cognitive and emotional domains (5,6) by acting as a trainer/assistant (7).

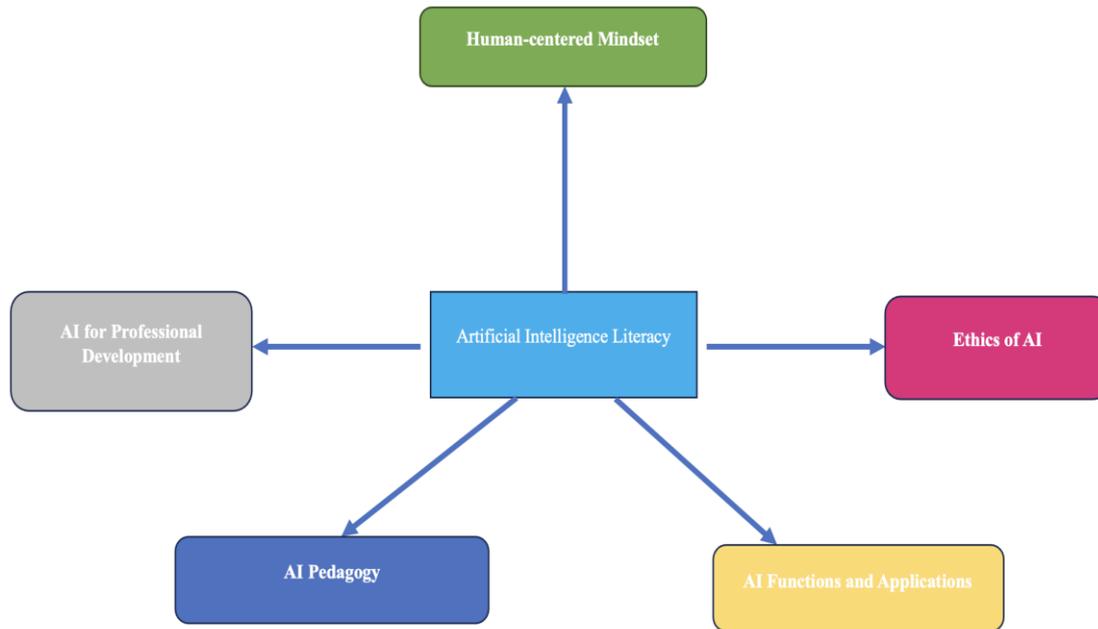
GenAI's role as a facilitator and promoter of improvement in education gradually increases by replacing traditional tools (2,4). Students' use of GenAI tools without adequate knowledge and skills leads to easy access to information, lack of assimilation, and reduction of critical thinking and problem-solving skills, and brings many ethical problems (1,3,8). To solve these ethical problems, educators are essential role models for the adoption and effective and efficient use of AI technology in education, and they should have a basic AIL. Therefore, firstly, nurse educators need to enhance their own AIL to provide an appropriate technology-based learning environment and then guide students to enhance their AIL (2,8). Thus, students and educators can more confidently use AI technologies as they live, learn, and practice in the digital world (4).

AIL is defined as the ability of individuals to use technology critically, communicate effectively, and collaborate within the framework of ethical standards (2). Strengthening AIL can promote positive attitudes while enhancing awareness and decreasing negative attitudes. A systematic review of 30 studies in the field of AI explored that studies on AI literacy are in the early stages and that there is a need to improve the definition and what content should be taught to non-expert educators (9). However, after the date of this systematic review, AI tools started to be widely used in education in a very short time. Although there are different definitions and components of AIL in the literature, they are generally discussed under the headings of technical, practical, and ethical understanding (2). These headings describe GenAI's behavior, specifically the technical methodology for data acquisition, the practical means of accessing this data, and the privacy protection considerations throughout this process. (3). However, understanding GenAI through critical knowledge, determining the proper purpose of use by self-assessment, and having the ability to transfer the

practical application knowledge gained to another person are the main components of AIL (10). The individuals learn how to use and evaluate the technology ethically while gaining comprehensive knowledge about GenAI (2).

According to Miao and Çukurova (1), the key elements of AIL are categorized under five headings: a human-centered mindset, ethics of AI, AI functions and applications, AI pedagogy, and AI for professional development (Figure 1). These elements contribute to students and educators taking a more effective and conscious approach when using GenAI technologies. A human-centered mindset argues that educators should put human rights and needs of well-being at the center of GenAI, emphasizing that educators should develop critical methods to evaluate GenAI and be human-controlled. Educators must express the definition of AI and demonstrate foundational knowledge of its functionality and expertise in applying AI technologies. To develop AIL, educators need to give more priority to their professional development, to be able to assess learning needs in educational settings in accordance with the requirements of the modern era, to follow current guidelines, and to keep themselves up to date (1).

Furthermore, they can use AI tools as educational tools in education (4). Only then educators will be able to contribute to students' AIL development by using AI tools from a pedagogical perspective (1). Therefore, educators need to understand and apply basic ethical principles and legal and ethical rules and have an appropriate attitude (1,3).



**Figure 1:** Artificial Intelligence Literacy Components. From “AI competency framework for teachers” by Miao F, Çukurova M., 2024 UNESCO, doi:10.54675/zjte2084.

In conclusion, nursing educators must be able to transfer conceptual knowledge, think critically, and be competent when deciding and using GenAI tools for education (1,3). Thus, educators should not ignore their roles related to AIL by adopting lifelong learning principles, using GenAI correctly, effectively, and ethically, and enhancing their literacy by guiding and supporting students (1,8).

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