AN ANALYSIS OF WEB-BASED ADAPTIVE MATH LEARNING PROGRAM COMPONENTS¹

Nan Huh¹ and Jihye Ee²

¹Kyonggi University South Korea;
²Graduate School of Ajou University South Korea

The development of knowledge information technology has changed the teaching and learning environment in education[1]. In addition, the development of Internet technology and the spread of smart devices have enabled the realization of education considering the characteristics of various learners[2]. As the knowledge information technology develops rapidly, it is possible to develop into a new educational paradigm. In particular, artificial intelligence is gradually coming into the learning situation in order to solve the situation considering various sociocultural backgrounds of learners with digital devices using artificial intelligence. And learning using smart devices equipped with artificial intelligence is likely to be realized soon.

In this study, three kinds of adaptive math learning programs using artificial intelligence, which express learning and diagnosis simultaneously according to the characteristics of individual learners, were selected and analyzed. We analyzed the characteristics of each program by classifying learning process presentation, concept learning, problem presentation, problem solving process, and the learning result processing.

It is necessary to discuss and apply the components in the development of the adaptive math learning program in the future based on this study. First of all, in order to make customized learning in a true sense, it is necessary to provide customized contents according to various characteristics of learners such as level and motivation of learners who utilize the program when developing program contents.

REFERENCES


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