

Future Special Education Teachers' Abilities to Integrate New Technology Into Teaching Reading Comprehension

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This study questions future teachers' abilities to integrate new technology into their teaching. A pedagogical scenario based on a cognitive approach was proposed to graduating students of the bachelor of Special Education program in order to teach Grade 3 students with reading comprehension difficulties. This pedagogical scenario integrated new technology via the "Village Prologue", a computerized environment. Future teachers were found to organize pedagogical activities, create learning situations suitable for teaching reading comprehension, help motivate children to read, and finally, guide children in their learning processes within the computerized environment. Furthermore, the pedagogical scenario helped in motivating future teachers to include new technology in their future teaching. The computerized environment also permitted the future teachers to adapt their teaching to the specific needs of children with reading comprehension difficulties.

School Festival on the Internet - Project-based and cooperative learning -

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We report a case of project-based and cooperative learning activities, School Festival on the Internet, Okayama 1999 (SF99) in Japan. Three public high schools in Okayama, Keio University and Kurashiki University of Science and the Arts participated in SF99. The goal of SF99 was to put the school festivals held at each of the high school on the web so that the students' efforts could be widely appreciated. School festivals are considered as an educational event in Japan, and we implemented SF99 as a project-based and cooperative activity. The festival provides students with opportunities to present achievements of their research or their other interests. Video streams and online communication through a Bulletin Board System (BBS) were the main applications used to achieve the end. SF99 is one of the few examples where extra-curricular activities such as school festivals were digitalized. Information-based learning and extra-curricular activity have similar goals. We also analyzed the achievements of SF99 and discussed the educational effect of information-based learning using the Internet.

The ParIEuNet-project: Problems with the validation of socio-constructivist design principles in ecological settings

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Instructional design aims at generating indications about optimal relationships between learner-related and instruction-related variables in view of the attainment of instructional and/or learning goals. In this poster, a study is presented in which it was started from socio-constructivist view on learning and instruction to identify a number of design principles. These principles were used to design and develop a concrete and innovative rich technological learning environment, the ParIEuNet learning environment. The main features of this environment can be described as follows:

- A variety of technologies
- A problem-based learning environment where use is made of ill-structured tasks
- International collaboration

It was hypothesized that such an environment would have an influence on certain learning environment. In this poster the environment and the results of the research will be presented, which indicate that there is an influence of the learning environment, however in a different direction than was expected.

Examining Medical Students' Attitudes and Learning Experiences in BioWorld

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This poster presents BioWorld (Lajoie et al., 1998), a computer-based learning environment (CBLE) that engages learners in realistic problem solving as they attempt to diagnose medical cases. Its design is consistent with both problem-based learning (PBL) and cognitive principles of instruction. Solving a BioWorld case involves interpreting case history information, ordering diagnostic tests, developing diagnostic hypotheses, and reflecting on one's own performance. As part of a larger study, the data for this poster consisted of measures of the attitudes and learning experiences of medical students using BioWorld. The experimental procedure involved having medical students individually diagnose a set of BioWorld cases and complete a questionnaire concerning their experiences. Students rated several aspects of the system (level of interest, difficulty, utility of learning activities, etc.). The results have implications for the design of CBLEs for complex domains. They also suggest that BioWorld is an effective learning environment.