Attitudes of Tenth-Graders toward Studying Biology in an ICT Environment

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Abstract

The purpose of the study was to examine high school students' attitudes toward learning biology in an ICT environment. Its focus was on differences in attitude between boys and girls, between students who were used to learning in an ITC environment and less experienced students, and between learners whose ITC environment included numerous technologies (4+) and those whose environment was less technologically rich. The sample included 66 pupils from the center of the State of Israel. It used an attitude questionnaire that had been validated, as well as open questions concerning future learning preferences in an ITC environment. Positive attitudes were found along with definitive statistical differences between boys and girls and between experienced and less-experienced learners in an ITC environment. Findings indicated that students want to learn in an ITC environment due to the availability of learning materials and resultant enhanced motivation. Students' opposition about learning in an ITC environment stemmed from concerns about their ability to concentrate and about technical difficulties. The study reveals some new aspects that did not appear on the original questionnaire. Some students enjoy learning in an ITC environment because they are "technological from birth"; others oppose it, preferring what is "tangible" and "familiar"; still others are worried about becoming addicted to technology. Findings indicate a variety of ways that students' attitudes can be improved.