Students who get stuck look for computer malfunctions

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When students working with educational software get stymied, they often try to find fault with the computer or the software, rather than look to their own mistakes, according to a new dissertation at the University of Gothenburg, Sweden.

Annika Lantz-Andersson, in her study, examined learning activities involving educational software. The study focuses on situations in which students who work with software during their regular school day instead of mathematics textbooks get stuck when using that software.

When students attempting to solve a mathematical problem, were informed by the computer that their answer was incorrect, they often focused on trying to find the reasons for this in the functions of the educational software itself.

"They would maintain that their answers merely needed to be rephrased, that the computer's answers were wrong in the same way as answers on an answer key of a mathematics textbook could be wrong, or provided other similar explanations," says Annika Lantz-Andersson.
Her study shows that the often-repeated proposition that educational software is self-instructing is just not true.

Her results show that the need for a person providing support is not any less in the case of educational software than in conventional teaching situations.

"There is a kind of silence in the relationship between students and the educational software they use. The computer never gets tired, is not bothered by endless examples of random answers, does not distinguish between students, but on the other hand cannot provide individually-fitted feedback, which is one of the most important tasks of a teacher", she continues.

Annika Lantz-Andersson's study also does not provide any indication that students view digital technology as being a more authentic or realistic to work with, as compared to conventional educational material.

The extremely rapid increase in educational software predicted around the year 2000 has not been realised, although most textbooks today have a digital application linked to their conventional text.

"Educational software has many advantages, not least its interactivity and its opportunity to promote cooperation amongst the students. There is still a strong belief that digital technology improves learning, despite the fact that this has not been proven", declares Annika Lantz-Andersson.

"Instead of getting mired in a debate about how digital tools can solve various types of classical pedagogical problems, it would be more relevant to focus on the new types of interaction and knowledge that can arise from the use of digital tools.

Source: University of Gothenburg (news : web)