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The use and abuse of software tools

Today most students use software tools to aid their studies. These range from basic word processors to more specific tools such as statistical and accounting packages in a variety of application domains. Our observations show that often the software tool is not used wisely but abused. That is the students often use the tool as if it will do the thinking for them. This has led us to ask the question:

"How should we use software tools and technology to achieve success and excellence?"

This question is relevant to all disciplines where software support tools are used.

In this research we are specifically looking at student use of software for programming although some of the conclusions are relevant to students 'using' or 'abusing' most software tools.

Retention of first year students is also an issue because all our engineering students have to complete the two first year Java programming units. We feel our engineering students need good programming skills even if it is for writing only small macros or programs.

P-Coder is a CASE tool, developed by the 3rd author on this paper, within the School of Engineering Science, and is aimed as a support tool to assist in the teaching of novice programmers by supporting and emphasising the design process.

This research is supported by analysing students learning styles. This has led us to question whether certain learning style traits lead to greater success on our programming units.

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