



Quality Attributes for Educational Materials

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Abstract

Internet technology has introduced the possibility of educational materials being published worldwide without going through the traditional channels of review and quality assurance. So, there is a danger that the future of education may be characterised by a proliferation of online learning materials that do not meet acceptable quality standards. It would be useful, therefore, to provide some basic guidelines for would-be authors regarding the design of these publications.

The aim of the present work is to define such guidelines in a way that is accessible to authors with limited knowledge of educational theories. The intention is to present them as attributes of the learning material itself and not in terms of the learning process which they support. This is a different approach and hopefully a more useful one from that adopted by other publications on this subject.

The primary factor is of course the accuracy of the subject content. However, there are other, more elusive attributes that distinguish between a good treatment of the subject and a bad one, and these have been the main concern of the work reported here.

The first part of the study has involved identifying and reconciling potential attributes from a range of theoretical sources including usability principles, cognitive learning theory, pedagogical studies, constructivist principles and motivational factors. These were finally reduced to a complete and sufficient set comprising accurate content, structured information, incremental iterative presentation, multiple views and authentic practice.

The attributes have been tested against existing textbooks, course texts and online materials on computing subjects. They appear to be consistently able to describe the quality of these materials and are also shown to be independent of any requirement for substantial pedagogical expertise or familiarity with cognitive learning theory and, therefore, usable by all authors.