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Developing a Web-based Multi-Media Self-Learning Programme for Measurement of Building Works

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Abstract:

Construction projects are of high-value and long production period. With ever increasing complexity, capital investments involving substantial monetary value demands a fair and transparent contract award system. Bills of Quantities have been used for more than a century as a control document that enables tender evaluation, valuation of interim payment and variations as well as project final account preparation. Measurement of works is one of the fundamental skills for the completion of Bills of Quantities and thus a critical part of curriculum for construction studies. Feedback from students suggested that the major barrier to command measurement skill is the inability to relate drawings with real objects. This is particularly so for those A-Level school leavers with no practical field exposures. The primary learning outcome of a measurement subject is the ability to measure building works in accordance with the Standard Methods of Measurement (SMM). The proposed project seeks to enhance the attainment of this intended outcome through the development of a web-based multi-media self-learning programme that maximizes the learning impact derived from visual display enabled by advanced multi-media technology. The project is to be delivered by four experienced teachers, in particular, the P.I. had successfully used this concept in developing a learning programme for Building Services Works. The proposed project is also timely as a NEW SMM was published in 2005, and learning materials based on this are sparingly available. This project is also fully supported by the Head of Department of Building and Construction.