ABSTRACT

The fact that e-learners can access educational content at anytime and from anyplace seems to be a matter of subjective analysis and debate. Therefore, the classical argument arises as to whether cost and consistency play a vital role in designing e-learning environment. While e-learning as such is a highly talked about subject, the cost and consistency it demands are not projected to the level of its usage. The cost may have a direct impact on the sale of these components; the consistency would depend on the level of usage of these contents. Nevertheless, a deep study with respect to usage and the cost verses performance is certainly needed to be looked into. Exhaustive published literature is found on e-learning. Even though much of them talk about either technical aspects or about instructional issues of e-learning, very little research work is seen on studies made that relate both these aspects for complementary or supplementary use to each other.

This research would attempt to determine, what types of technical and instructional components would suit well for an efficient and economical e-content managing package; what is the learners’ view of being instructed by an efficient e-content managing package; and what would be a suitable instruction model for e-learning with specific reference to economy akin to efficient instruction. The research would investigate the effectiveness of instructions in existing e-contents of the subject ‘Operating Systems’ (considered to be a national standard reference). It would determine the extent of appropriate and effective e-learning components with reference to economy complementing effective instruction. Finally, it would evolve an effective e-learning strategy for ‘Operating Systems’ e-content through a validated model.
Fundamentally needed instructional components for economically reusable objects have been arrived at through a detailed subject content analytical work performed on existing e-contents in this research work. The research work then determines the economical and technical components needed for e-learning strategies for the chosen subject contents. Based on these preliminary studies, instructional modules in the form of reusable and independent entity called ‘objects’ have been designed and developed. This proposed method for developing objects has been validated through social studies. The analytical study made on the results of content study and from the experiments conducted on the researcher’s model, the technical feasibility akin to economic viability has been arrived at and documented. The outcome of the entire research through conclusions, findings and recommendations, including suggestions for future research have been investigated and determined and finally documented.