E-Learning

The Evaluation of E-Learning Interventions

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Abstract

This paper provides some fundamental questions to pose when considering the implementation of any elearning intervention (whether an online tutorial, the use of discussion threads, collaborative wikis etc) and suggests a number of approaches to take when implementing an evaluation strategy to assess the impact on the module / programme and upon the learner and facilitating academic.

Introduction

There are a multitude of reasons one may wish to evaluate an elearning intervention; to ascertain its cost effectiveness, to examine the design process, to review the implementation. In an aligned curriculum we wish to ensure that all process is related to identified learning outcomes, in this way we may begin to assess the direct consequences of academic actions upon the learner.

Many traditional evaluation techniques such as concept maps, focus groups, interviews, questionnaires and observations will be equally applicable in an elearning environment as in a traditional face to face teaching environment. When implementing an evaluation methodology it is essential to pose the question what is the purpose of the evaluation? Is it to assess the impact of an online collaborative project on student learning? And who is it the evaluation for, e.g. the College may wish to evaluate the potential of transferring this elearning intervention to a different programme or module. Only then might we address the type of evaluation to employ, will it be a;

- **Needs analysis** – Assessing the current situation to see if an elearning solution may address a particular need or issue
- **Formative Evaluation** – Gathering data on an elearning intervention in order to improve, adapt, or re-design the materials.
- **Summative Evaluation** – Collect data after implementation and use in order to demonstrate the effectiveness of the elearning intervention.
- **Integrative Evaluation** – Investigate the potential for reusability and adaptive integration of any given elearning intervention

Prior to the implementation of the elearning evaluation it is beneficial to review current teaching practice and curriculum design. This is to enable the practitioner to formulate a clear understanding of where best to introduce a particular elearning intervention in order to enhance and ultimately achieve the learning outcome.
By deploying these types of questions to the evaluation methodology it is possible to ascertain the impact on the process of learning and teaching. In other words how should the practitioner take account of:

- Individual learning styles
- learners existing knowledge
- Enable learners to become ‘actively’ engaged in process
- Provide manageable units of ‘materials’
- Provide choice (where possible) of what and / or how to learn
- Inform students about what is required (to learn) and offer guidance to achieve this
- Allow the assessment regime to reward evidence of higher order thinking and learning.

[See Chickering and Gamson (1987), McMahon (2005)]

The following are a series of elementary questions for evaluating the use of elearning that may be used in a survey or act as guide to developing a protocol for an the evaluation:

- Does this e-resource/activity fulfil a real need?
- What do users learn from this e-resource/activity (in line with written learning outcomes)?
- Do users like using the e-resource/activity?
- Given a choice, do users make use of the e-resource/activity?
- How easy is it to use?
- Is the content of high quality?
- How does the e-resource/activity compare with other (previous) ways of approaching the same material?
- What hardware / software is required and is this available to the intended users?
- Do the intended users have the necessary level of computer skills?
- What are the costs of buying/running or designing/creating these e-resource/activities?


McMahon, T (2005) Teaching for effective learning: Seven Maxims for Best Practice in Radiography Vol 12, pp 34-44