



E-Assessment: A Technology Based Solution for Executive Education in the Higher Indian Educational Scenario

***Mr. Daljeet Singh Bawa ** Dr. Amit Gupta**

*** PhD Scholar (Computer Science), Singhania University, Rajasthan, Assistant Professor, Bharati Vidyapeeth University Institute of Management & Research, New Delhi.**

**** Associate Professor, Maharaja Agrasen Institute of Management Studies, New Delhi**

ABSTRACT

The purview of distance learning is increasing in India. The success of Open Distance Learning (ODL) institutions in India has contributed to increased credibility and acceptance of distance learning systems as an effective mode of teaching and learning. Across the rest of the academic portfolio there is a mixture of e-assessment and paper submission. A generic aim was to provide students with a convenient distance learning package and to speed up the return of assignments with timely, contextualised feedback. Students on these awards typically submit assignments during placement periods and so we wanted to avoid travel into the University from placement and reduce our carbon footprint. The newly validated curricula are committed to using mainly e-submission for assessments and so this experience was important as a proof-of-concept for other module teams in managing our large student groups.

Keywords : Open Distance Learning, credibility, e-assessment, carbon footprint, learning

1. Introduction

In today's rapidly evolving technological world, ICT is transforming the way education is delivered and assessed. This in turn is changing the nature of learning. Learning is no longer a top down process but an interactive activity where learners have greater flexibility. E-learning enables learners to keep a track of their progress.

Teachers are trainers and inevitably involved in assessing learners. It is an important, if not the most important factor in formal education at all levels. Assessment, the way it is designed and implemented especially at higher education indicates how various, and many times conflicting in the India scenario, requirements of the main stakeholders in the educational process – the students, teachers, parents, managements, employers and society more generally. The importance of assessment can scarcely be overemphasized. It is generally agreed to be the single most important influence on learning. According to Erwin and Knight (1995 as quoted in Freeman and Lewis 1998) "If all other elements of the course point in one direction and the assessment arrangements in another, then the assessment arrangements are likely to have the greatest influence on the understood curriculum". Unfortunately, assessment often works against, rather than for learning: "Assessment can encourage passive, reproductive forms of learning while simultaneously hiding the inadequate understanding to which such forms of learning inevitably lead". In Indian context it is not uncommon to hear statements like "if you focus on learning a subject well, you cannot get good marks in the final examination", "getting good marks in examinations does not ensure good placement" or "one needs to prepare for placement separately from preparing to get good marks". To effectively evaluate the use of technology to assess learner progress, it is necessary to look at the whole purpose of assessment itself.

Economic, environmental, and social changes are driving organizations to use alternative approaches in preparing organizational leadership (Dealtry, 2002). The need is to provide a

perspective that influences strategy development in executive learning.

2. What is Assessment and E-Assessment?

Assessment is about gauging learning outcomes. The mechanisms available for gauging this outcome are, with the development of ICT is becoming wider and wider. No longer need assessment be about a three hour exam taken at the end of the academic year. Assessment is about continuous monitoring of progress using a variety of methods.

In terms of learner motivation, assessment is vital - it ensures that learners can see that the acquisition of knowledge is leading somewhere. E-assessment is particularly useful in this context. By flexible methods of assessment, often providing instant feedback, learners are able to track progress and thereby remain motivated to improve further. Motivation is further strengthened by the variety- often engaging and entertaining- of the methods of evaluation offered by e-assessment.

Assessment in general terms is about gauging learner outcome, but the purpose and intensity of assessment vary. So the value of e-assessment can vary depending on the purpose it seeks to serve. Assessment takes three forms, each serving a different purpose.

E-Assessment is a new online pedagogy that uses ICT to deliver education effectively and not about technology for technology's sake. It enables personalization – allows the learner to carry on at his/her own pace thereby eradicating the difficulties posed by distance.

Assessment can essentially be carried at the various stages of the learning process:

2.1 Diagnostic Assessment – Initial Stage (Starting Point)

This assesses the learner's current level of attainment as a way of determining potential. The information gauged from the diagnostic assessment could be used to decide what level

of assistance a learner needs. It could also be used to decide the level at which a learner should be admitted to a course.

E-assessment can be applied to perform this type of test- usually to test minimum competence in a subject. These can be performed in a tightly controlled classroom situation or administered on a self-assessment basis.

2.2 Formative assessment (Mid –Level Stage)

Formative assessment monitors learner progress. It can be taken, for example, at the end of a module of study or even at the end of a lesson.

This is the most widely used form of e-assessment and is often integrated with Virtual Learning Environments. It enables learners to monitor progress by getting instant feedback after completing an exercise. The level and quality of the feedback depends on how the questions and answers and any comments relating to them are structured. Nevertheless, e-assessment has a role to play in the continuous improvement of learners.

2.3 Summative assessment (Completion Stage)

In this form of assessment, the test counts towards a qualification. A time-controlled end of year exam is an example of this form of assessment.

When applied to e-assessment, there are a whole host of security and qualitative issues with this type of assessment. Nevertheless, as we shall see later, e-assessment has progressed beyond testing merely comprehension and recollection to encompass ways of gauging analysis and evaluation.

3. E-assessment- is it testing enough?

Before describing the types of testing that forms e-assessment, it is important to dispel some reservations about its usefulness. It is often argued that e-assessment can test no more than surface knowledge and that it lacks any means for testing depth knowledge and understanding. However, this argument misses an important point: the quality of testing depends to a large extent on the type of questions set and the feedback. So, in a multiple choice exercise- whether delivered on-screen or on paper- the quality of the test would depend on the wording of the pre-specified answers. The difference between the potential answers may be subtle, requiring the learner to analyse and evaluate all the options. This requires careful attention being paid to the way questions and answers are constructed, to ensure they are stimulating but also clear and fair.

E-assessment should, in addition, be seen as supplementing other forms of assessment. Where e-assessment cannot sufficiently gauge learner creativity, other forms of testing can be used. E-assessment can still play a role in the overall monitoring of progress.

3.1 E-assessment- the techniques

Developments in software are expanding the possibilities for e-assessment. VLEs are also becoming more flexible in delivering an integrated system for teaching, assessing and tracking.

The forms of e-assessment described below are not exhaustive; there may be other forms as well. In particular, it should be remembered that the pace of change is rapid in this field, as in ICT and indeed IT generally. Also related is the question of student tracking- the recording and monitoring of progress.

3.2 Multiple choice type questions

This type of assessment has been used in paper format well before the development of e-assessment. The pedagogical value of multiple choice questions, or a variant of them, depends on how the questions are structured and the purpose they serve. They can be used at the end of a lesson or tutorial to test what has been learnt. As such, they are useful for monitoring progress. Many colleges have integrated multiple

choice quizzes at the end of lessons in VLEs.

Multiple choice questions can also be used to test depth of understanding. As already mentioned, this depends on how the questions are structured. The potential answers may be predetermined, but if they are structured in a sufficiently demanding way, learners would need to think hard about the correct answer.

With e-assessment, it is important that feedback generated by the multiple choice test is meaningful. Where a question is wrong, the feedback should explain, in logical steps, how the correct answer is arrived at. This would contribute greatly to understanding.

The multiple choice question format has many variants, including Boolean (yes/no answers), multiple correct answers or image matching.

Whatever the precise format, VLEs (Virtual Learning Environments) provide a flexible mechanism through which e-assessment can be delivered. Many VLEs allow questions to be selected randomly and to time-control the whole assessment. This addresses some of the security issues which arise about authenticating the identity of learners.

The interactive quizzes within VLEs are mainly used as self-assessment exercises. It is also clear that such exercises are used in the main only for diagnostic and formative purposes. Learner feedback is also positive- the ability to monitor progress is seen to aid learning.

3.3 Contribution to online discussions

A more innovative form of assessment is to measure contribution to an online discussion group. The tutor can initiate a discussion and then monitor participation. Although this form of assessment is less formal than writing an essay, it can be useful for monitoring critical and evaluative abilities. This goes some way to meeting the argument that online assessment lacks the ability to test depth of understanding. There is evidence to suggest that creative use is being made of this method in higher education.

However, security issues arising from the difficulty of authenticating the identity of the contributor mean that online discussions are used only for formative and supplementary purposes and not formal assessment.

3.4 E-portfolios

Assessment does not necessarily take the form of a test, whether taken on paper or electronically. In a wider sense, the presentation of a portfolio, as evidence of work undertaken, can also be subjected to assessment. e-portfolio refers to the use of computers, not necessarily the internet, to present a portfolio. Moreover, portfolios can be used not only for accreditation but also to present a record of achievement.

e-Portfolios are a secure and cost-effective method of assessing, tracking and record keeping. E-portfolios have the potential to change assessment because:

- they offer an integrated mechanism for student tracking and monitoring student progress over time;
- the aggregation of many students' work allows the evaluation of how the course is running and meeting wider learning goals;
- they make it easier for learners to keep a record of their work and to draw on it later- for example for a job interview.

Other e-assessment creation tools include animated quizzes, sliders, tables and charts exercises, number tools, sentence builders, drag-and-drop, hotspots, word match and games.

4. E-assessment and Certification

A formal certification by the regulating authorities must be

supported to make e-assessment more reliable and valid in the educational scenario.

5. Conclusion

E-assessment is being pursued at various levels and for various purposes. There are two interesting points currently emerging from work in colleges: firstly, many colleges are beginning to implement e-assessment strategies as a mechanism for gauging learner progress. Learner response has been positive, as the ability to receive instant feedback after completing an exercise is very much appreciated. Second,

colleges that have not reached implementation stage are actively seeking advice on appropriate e-assessment solutions- particularly as there has been a proliferation of e-assessment tools recently.

Today we have a plethora of universities offering executive education at the higher level under Distance Education Council (DEC) which offer e-assessment as an evaluation option. It is an attempt to develop the gaps in assessment thereby overcoming the hurdles of distances and circumstances.

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