

# Evaluating Distance Education

**Som Naidu**

*The University of Melbourne in Victoria, Australia*

## INTRODUCTION

This article discusses approaches for evaluating distance education activities. It comprises a framework for evaluation that is based on widely adopted approaches to educational evaluation and which can be used for evaluating other educational activities as well. The critical components of this framework are threefold: various phases in the evaluation process, the main focus of each phase, and most appropriate strategies for gathering data in each phase. The use of a framework such as this will ensure that the evaluation process is systematic and also thorough. The discussion here extends earlier discussions of the topic by this author in two other publications. These are in a chapter titled “*Designing and evaluating instruction for e-learning*”, that is published in a book edited by Patricia Rogers “*Designing Instruction for Technology-Enhanced Learning*” (see Rogers, 2002), and in a chapter titled “*Evaluating the impacts of e-learning*” in the book “*E-learning: A Guidebook of Principles, Procedures and Practices*” (see Naidu, 2006).

## BACKGROUND: THE EVALUATION PROCESS

The term *evaluation* is sometimes used to refer to the process of assessing student achievement or performance. For our purposes here, however, we see “evaluation of the impacts of an educational program or project” as different from the “assessment of its learning outcomes” for students. Evaluation, as seen here, refers to the gathering and observation of a broad range of evidence on the impacts and effectiveness of a program, project or process. Assessment of its impacts on learning comprises the examination of the performance of learners which can contribute to the evaluation of the overall impact of the program or project.

The evaluation process comprises gathering of data on the use, worth, and impact of a program, project, or process in relation to its intended outcomes. Systematic

gathering of this information is crucial to the successful development and implementation of any program or project. The evaluation process comprises *front-end analysis*, *formative*, *summative*, and *monitoring or integrative* evaluation (see Kirkpatrick, 1994; Naidu, 2002, 2005, 2006; Reeves, 1999).

Table 1 offers a framework for evaluating distance education activities or, for that matter, any other such educational activity. It draws its processes from widely adopted approaches to educational evaluation and comprises various phases of the evaluation process, their foci, as well as appropriate strategies for gathering relevant data (see Patton, 1988, 1990; Reeves, 1997; Shulman, 1988).

*Front-end analysis* is the first step in the process and as the name suggests, it involves the gathering of information in preparation for the development of a project or program that will have the best chances of meeting its expected outcomes. It involves analyzing the context including all its stakeholders, and identifying and analyzing their needs.

*Formative evaluation* involves the gathering of data on the uptake of the program or project against its intended outcomes. It comprises activities that take place during the design and development of the program or project. These activities include validating the design model against expected outcomes, and pilot testing of component parts of the program or project with small representative samples of the intended users.

*Summative evaluation* involves the gathering of data on the sum impacts of a program or project. It comprises activities which are carried out towards the end of a project or program to ascertain the degree to which its expected outcomes have been achieved.

*Monitoring or integrative evaluation* involves the gathering of data during the full implementation of the project or program. It comprises activities which seek to ascertain how the program or project is performing against expected outcomes and the extent to which the program or project is integrated into routine operations of the organization.

This article offers a proactive framework for effectively prosecuting these processes. The notion of

Table 1. A framework for evaluating distance education

<b>Goals:</b> It is most important to be very clear about this, as this will determine what is done and how it is done.		
<b>Phases</b>	<b>Focus</b>	<b>Some strategies and resources for gathering data</b>
<i>Front-end analysis</i>	Context analysis User and user needs analysis	<ul style="list-style-type: none"> <li>• Background documentation including policy documents</li> <li>• Surveys of potential students, and other stakeholders, their backgrounds, needs, aspirations and expectations.</li> </ul>
<i>Formative evaluation</i>	<p><i>Design evaluation</i> involves ascertaining the match between the goals of the program or project and its design architecture.</p> <p><i>Prototype evaluation</i> involves ascertaining from small group of users how the program matches predefined design criteria.</p> <p><i>Pilot implementation</i> involves gathering data from a small sample of users in a trial implementation of the project or program.</p>	<ul style="list-style-type: none"> <li>• Expert analysis</li> <li>• Direct observation</li> <li>• Analysis of user interactions and their products</li> <li>• User's self-reporting which includes feedback gained through questionnaires, checklists, video-stimulated recall/teach-back/discussion, and focus group interviews.</li> </ul>
<i>Summative evaluation</i>	<i>Impact evaluation</i> examines the effects of the program or project on identified goals and outcomes.	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Focus group interviews.</li> <li>• Clinical interviews with individual users.</li> </ul>
<i>Monitoring and integrative evaluation</i>	<i>Integration evaluation</i> examines the extent to which the project or program is forming an integral part of the whole infrastructure.	<ul style="list-style-type: none"> <li>• Survey of patterns of use and user satisfaction.</li> <li>• Cost-benefit analysis</li> </ul>

proactive evaluation, which was first promoted by Sims, Dobbs, and Hand, (2002) advocates an approach to program or project development where all planning, design, and development activities are assessed against specific evaluation criteria as part of the design and development process. These authors argue that by carrying out these checks proactively, all relevant factors and issues will have been considered and resolved (see Sims, Dobbs, & Hand, 2002).

## MAIN FOCUS: STEPS IN THE EVALUATION PROCESS

### Defining the Purpose of the Evaluation

The first thing to be very clear about is what is it that needs to be evaluated. Is it the students' experience with the course or program, or their cognitive outcomes?

Clear answers to this question helps to identify the sources of data. It will also help decide what approaches to adopt and which instruments to employ to gather what kind of data (see Keeves, 1988; Reeves, 1999).

The best possible place to start defining the purpose and scope of an evaluation is to revisit the learning and teaching goals. Consider the design architecture of the learning and teaching environment (i.e., what was this program or teaching innovation trying to achieve?). It is often useful to engage in an exercise with the stakeholders to define the purpose and scope of the evaluation process. If the goal is to gather information on many issues, then these goals must be prioritized and then pursued.

### Developing Questions and Hypotheses

A definition of the purpose and scope of the evaluation will lead naturally to issues, questions, hypotheses, and/

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