

# Planning For Evaluation In Online Learning: University Of Hawaii Case Study

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## ABSTRACT

*With contemporary requirements for objective measurement, program evaluation is a certain necessity. Most program evaluation is designed in response to external demands for assessment. Moreover, such evaluation is typically developed only after programs already exist. However, the proliferation of online learning provides new opportunities for approaching evaluation. Specifically, many higher education institutions are currently augmenting existing campus-based programs with online learning—either by hybridizing traditional delivery or by providing parallel online options. At the University of Hawaii, while designing a parallel online delivery model for an existing campus-based program, careful consideration was given to the unique requirements for evaluation and assessment. In this way, an overall plan for evaluation was developed that incorporated multiple layers of assessment: from specific programmatic to internal university to external accreditation requirements. Commonalities among the multiple layers were considered to develop a single, overall evaluation approach. In a case study model, this paper describes eight practical steps taken to develop an overall, effective evaluation model.*

**Keywords:** Distance learning, online learning, program evaluation

## INTRODUCTION

Multiple considerations go into every step of the design and development of programs and courses for distance education. In model frameworks, whether from classic instructional design or other design traditions, formative evaluation is a continuous process with the ultimate goal of creating ideal learning environments to meet the needs of diverse learners and ensure successful learning outcomes. As each course and program cycle is completed, summative evaluation provides additional input for the next round of updates. Throughout, research, reports of best practices, anecdotes by professional colleagues on new practices, and the results of earlier evaluation efforts inform design. When practiced in a formal method, this process of continuous formative evaluation and rapid prototyping informed by research is known as “design-based research,” an increasingly common approach to iterative improvement in a world of evolving new technologies (Reeves, 2000).

The process of design and evaluation is complicated in distance education because emerging technologies are regularly providing new affordances for delivering content, increasing interactivity, and allowing new potentials for communication. Developers are expected to regularly review technology use and update to meet current best practices, often with limited research to guide choices (Zhao, Lei, Yan, Lai, & Tan, 2005). While once there were severe restrictions on tool choices because designers were limited by resources available and institutional choices of software, Web 2.0 is providing an online menagerie of freely available commercially supported applications complimented by the open source movement for installing and customizing locally. This adds an additional level of evaluation required in selecting tools and external content (Alexander, 2006).

The Kirkpatrick four-stage evaluation model is well known but studies have shown that most evaluation rarely gets beyond level one. More common within higher education in the U.S. are the evaluations that are initiated to meet program and institutional requirements. These typically include end-of-course student evaluations, completed as part of a faculty evaluation and feeding into tenure and promotion decisions. Many institutions have regular program reviews, ostensibly to ensure program improvement but more cynically believed by faculty to be

related to the distribution of funds and resources by central administration. Within an institution, programs or units may be accredited by disciplinary groups (for example, the National Council for Accreditation of Teacher Education or NCATE, for education schools and colleges) requiring periodic evaluation and reports. At the institutional level, all major higher education providers are accredited by regional accreditors empowered by the U.S. Government. In the case of the University of Hawaii, this is the Western Association of Schools and Colleges (WASC).

Despite numerous calls for evaluation, time and resource constraints on instructors and designers make continuous evaluation difficult and generally limited or even not done at all (Stake & Cohernour, 1999). Individually we each understand the culture of evaluation but in practice, short-cuts are taken and we often make do with best-available. When pressured by outside sources, evaluation gets done but what real-life solutions might be helpful in encouraging a more comprehensive and effective evaluation strategy?

To illustrate evaluation processes, this paper describes an approach to evaluation from the University of Hawaii: the design process for a distance education graduate degree program in educational technology.

### **EIGHT STEPS FOR CONSIDERING EVALUATION IN ONLINE LEARNING**

There has been limited research and reporting on evaluation in fully online programs. As with other distance learning initiatives, online programs are faced with changing technologies, limited knowledge of best practices, and often very unique student bodies because of the audiences for which they were designed. These may vary significantly from the usual university students and better understood learning patterns. By addressing evaluation in initial program design, later expectations for data and provable successes are readily met as well as setting goals for improvement.

During the 2005-2006 academic year, the Department of Educational Technology (ETEC) at the University of Hawaii at Manoa planned for a new program, a fully online version of its already existing on-campus Masters in Educational Technology. This new program began in Fall 2006. While many structures already existed in support of the current on-campus program, the online version (hereafter abbreviated OTEC) required a greater level of planning and administrative scrutiny. In general, there exists a perception in academia that online learning might be less effective in addressing student outcomes than traditional approaches (Allen & Seaman, 2004). However, since several of the program planning team members had already successfully created online programs at other institutions in the past, rather than view the extra level of scrutiny as an onerous task, the team addressed the probable documentation and evaluation requirements from the onset.

In order to design a quality program while simultaneously adhering to contemporary requirements for multiple layers of stringent evaluation and accreditation, ETEC developed an overall planning process for its online program. Included in the overall plan were eight steps for addressing programmatic design and evaluation issues. It is important to note that discussions for these steps did not necessarily occur in the order presented. Moreover, many of the discussions addressing these steps occurred at different times, in different venues, and even with different collaborators. In general, the bulk of these discussions occurred during: (a) department meetings, (b) program planning subcommittee meetings, and (c) informal discussions with interested stakeholders including but not limited to department as well as other outside faculty members, university administrators including chairs and deans, ETEC alumni, and community stakeholders.

The most significant factor regarding this process was that planning discussions were approached in a collegial, collaborative manner. Decisions were not left to a single program administrator, such as a chair or program coordinator. Instead, multiple stakeholders took an interest in the design and implementation of the OTEC program. Without the collaboration, the program would not have been designed, approved, and implemented in such a short time frame. The program was designed in Fall 2005, approved in Spring 2006, and the first cohort of students began in Fall 2006. Of the first cohort members, over half graduated in two years while most of the other half are scheduled to graduate in Spring 2009. Retention has been high, with the loss of two students in the first year not unlike the parallel campus program reflecting adult students with complex lives. When designing the program, the following steps were addressed.

**Step One: Determine the mission and/or vision of the program and how it fits in the overall institutional strategic plan.**

First, several discussions were conducted during departmental meetings and with university administrators to determine the need for an online program. The College of Education mission statement encourages commitment to diversity and serving the needs of the State of Hawaii, including indigenous and Pacific Rim populations. In addition, the University of Hawaii strategic plan specifically endorses access and equity, especially to Native populations. The main campus for the University of Hawaii is on the island of Oahu. Most graduate programs are delivered on this main campus in traditional formats. Thus, individuals living on outlying islands have limited opportunities for graduate level education.

In discussions, it became clear that an online program could fulfill a need for increasing access to quality programs, especially at the graduate level and to the outer islands. Background research indicated access to higher education is needed among Pacific Islanders. The National Education Association reported: “according to the 2000 Census, only 13.8% of Native Hawaiians and other Pacific Islanders have bachelor’s degrees” (Lee and Kumashiro, 2005, p. 4). According to the UCLA Asian-American Studies Center (2006), those numbers are worse at the graduate level. Finally, of *all* racial ethnicities, the National Center for Education Statistics (Sikora & Carroll, 2002) reported Native Hawaiians / Pacific Islanders had the lowest percentage of students participating in distance education at the graduate level with a scant 2.6%, less than half that of the next lowest identified ethnicities (Hispanic 5.8% and Asian 5.5%). In sum, the need for providing access to quality programs through distance learning to indigenous populations in Hawaii is extreme.

**Step Two: Determine the projected market, including student needs.**

Once it was determined that an online program could address strategic needs of the University, several faculty members began discussions and recruiting visits with neighboring islands to determine the level of interest and demand. Early on, it became apparent that the need for access to graduate level programs was not limited to Native populations. Individuals across the state expressed a deep interest in our program, many indicating that the physical distance to Oahu was the primary impediment to furthering their education.

Program planning committee members collaborated with local community-college coordinators, Department of Education leaders, K-12 teachers and administrators, and university liaisons to better understand the needs and requirements of the potential market. It is important to note that some funding was needed for travel to meet with stakeholders on the outer islands. It is our sincere belief that the success of any program starts with collaboration and that investment in personal networking is necessary.

**Step Three: Determine why distance delivery is appropriate to meet the objectives of the program and Step One and Two.**

This step was an easy one. Once it was determined that a major goal of the OTEC program was to fulfill the needs of a geographically diverse state, an online delivery methodology was the only viable option. More important was handling the concern by university faculty and administrators that such a delivery model would be of the highest quality in keeping with the prestige of the university. Only through rigorous review and evaluation could that be ensured. It became apparent that there were multiple requirements for such evaluation.

During our collaborative discussions, we wanted to make sure to address the needs for outside evaluation while adhering to our own desire for program review and improvement. We determined that we needed to better understand the requirements of the multiple levels of review and evaluation to limit duplication of effort while simultaneously adhering to the highest standards for our program.

**Step Four: Determine departmental and college programmatic and evaluation requirements.**

First, we had to better understand our own programmatic needs at the departmental and college level. ETEC undergoes a yearly review process where data are collected from courses and alumni to ensure objectives are met. In developing an evaluation plan, departmental as well as college level criteria were considered.

**Step Five: Determine institutional documentation, approval, and evaluation requirements.**

Next, institutional requirements were considered. This included course and program approval forms, internal review documentation, program evaluation rubrics, and fiscal planning models. Once again, special effort was made to minimize duplication with other requirements. During collaborative discussions, it was determined that a self-funding model was necessary to address the special needs of an online delivery system. Once again, as with providing funding to collaborate with stakeholders, equally important is ensuring a fiscal model that will ensure the success of an online environment.

**Step Six: Determine outside agencies accreditation and evaluation requirements.**

Finally, requirements for evaluation and program review from outside agencies were considered. Our programs require multiple levels of review and accreditation. Some of the major accrediting requirements include: (a) the Western Association of Schools and Colleges, (b) the National Council of Accreditation for Teacher Education, and (c) the Association for Educational Communications and Technology, or WASC, NCATE and AECT respectively. The ETEC program serves a diverse set of stakeholders and requirements for accreditation are stringent.

During collaborative discussions, we wanted to once again limit duplication of effort while adhering to high standards. By better understanding outside agency requirements, we could combine them with our own. Provided in Table 1 is a sample of how we combined programmatic, university, and accreditation requirements. While it is specifically a matrix for accreditation purposes, it combines requirements from multiple levels.

**Table 1: AECT Assessment Matrix**

<b>Type and Number of Assessment</b>	<b>Name of Assessment</b>	<b>Type or Form of Assessment</b>	<b>When Administered</b>
Assessment #1: Licensure assessment, or other content based assessment (required)	Master's project/paper	Master's paper	Terminal course (Exit)
Assessment #2: Assessment of content knowledge in instructional or educational communications and technology (required)	Portfolio	Electronic Portfolio	Terminal Course (Exit)
Assessment #3: Assessment of candidate ability to plan (required)	Front End Analysis	Front-end Analysis paper	First semester (Entry)
Assessment #4: Assessment of student teaching/internship/practicum etc. (required)	Practicum Project	Summative report of field or clinical experience	Final Fall Semester (Middle)
Assessment #5: Assessment of candidate effect on student/client learning (required)	ID Project	Instructional module and formative evaluation report	Second semester (Middle)
Assessment #6: Additional assessment that addresses AECT standards (required)	Technology Project	Technology promotion media product	First semester (Entry)

**Step Seven: Look for the confluence of requirements in Steps One to Six to develop an overall evaluation plan.**

Through collaborative discussions with multiple stakeholders, an overall approach to evaluation was determined. For our program, we adopted an Empowerment Evaluation (Fetterman, Kaftarian, & Wandersman, 1996) approach. This method was chosen because it approached evaluation from the standpoint of stakeholders and triangulated data from many different categories (Maykut & Morehouse, 1994). The method was open-ended and

easily customizable for many different programmatic needs. The basic process for implementing the Empowerment Evaluation included: (a) taking stock, (b) setting goals, (c) developing strategies, and (d) documenting progress. This fit well with the steps already taken when designing our program.

When implementing the model, we designed evaluation criteria (including accreditation documentation and rubrics) with multiple criteria in mind. The model provided a conceptual framework for data collection, emphasizing the importance of collecting data from multiple sources and stakeholders. Taking stock included identifying an approach for evaluation. Setting goals included identifying objectives and how they could be measured. Developing strategies included identifying an action plan for measurement. Documenting progress included the analysis of data and a continuous reevaluation of the entire process.

**Step Eight: Analyze, reevaluate, and adjust in an iterative design process.**

As a result of the steps taken and evaluation process, a proven, successful program relying on best practices and iterative design process was created. Demand for the program is increasing and notoriety is high. OTEC has consistently received high praise from participants and stakeholders alike. A number of professional research papers have been generated through these evaluation efforts (Hoffman, Menchaca, Eichelberger, Cordeiro, Note-Gressard, & Yong, 2008; Menchaca & Hoffman, 2007; Menchaca & Hoffman, 2008). Even outside agencies, as evidenced by the award for best practices in distance learning from the United States Distance Learning Association, have lauded the program.

**CREATING AN EVALUATION CULTURE**

Like other academics, the faculty in Educational Technology have multiple pressures to fulfill obligations for teaching, research and service. In this busy schedule, external demands for evaluation often make for some grumbling when there is one more report to write or one more rubric to consider requiring an evaluation effort, each with different elements that are deemed important. These evaluations are rarely designed with distance education in mind, and those looking at the results are likely to have little understanding of either the opportunities or challenges of distance education.

For distance learning courses and programs, it has become critical to engage as a group in ongoing evaluation. In this process, we not only improve our programs but become better teachers as we have a new understanding of the ways to move from the uncertainty of research to the actual implementation of practice. Further, when external demands for evaluation occur, we are able to address the issues as a group and show the strong results within the context of our own research and data that are more appropriate for distance learning.

As our case study shows, the rewards of creating a culture of evaluation within the department have been high, including:

- an improvement in our courses recognized by our students through course evaluations and surveys. This has increased our distance learning enrollments because of positive “word-of-mouth” among educators in Hawaii.
- the ability to weather official evaluations by having data of our own that can be used in redefining criteria and better explaining to outsiders what good distance learning looks like.
- objective data to show that the results we have defined for our programs are resulting in the learning objectives we set for our students, and those objectives are set in part through the expressed needs of our students.
- a positive environment within the department to discuss the scholarship of teaching and make this a high priority for improving instruction to benefit our students.
- the development of a research agenda that encourages innovation and adoption of new tools and approaches that keeps our courses and programs fresh while providing data used for collaborative publications and conferences like the one for which this paper was written.
- recognition for our efforts as part of a prestigious national award for distance learning won by the College of Education.

## RECOMMENDATIONS AND CONCLUSION

In the United States, there is increasing pressure at the University level for accountability. This is being driven both by external public pressure and by the budget pressures internally resulting from the economic decline. Faculty used to being in control of their courses and programs often find this an intrusion on their time, something that should just be handled by administrators paid to deal with such bureaucracies, as well as being outside of their areas of specialization.

Rather than see this as intrusive, faculty can use these as opportunities to jointly discuss distance learning and share their best practices to improve courses and programs. When there is an ongoing community effort for improvement, evaluation is no longer a chore because it fits within routine practice. Further, research indicates how critical such examinations are to improve an area such as distance learning which is rapidly evolving and for which models are not well established. Because all distance problems are heavily influenced by local environment, culture and a specific group of students, evaluation efforts will always require local attention for meaningful improvement.

Ongoing evaluation ensures that departmental conversations will have a focus on issues other than just the routines of scheduling, student problems, and resource allocation. Within a community of practice, you have greater power to self-define critical outcomes which is a key to evaluation of distance learning giving its differences from the traditional models of post-secondary course delivery generally imposed with external evaluations. Our experience shows that this effort has its rewards by increasing enrollment when you have a reputation as a good place for students and by gaining external respect for your programs because of the lead in best practices. Further, evaluation efforts can result in awards and recognition externally for distance learning courses and programs.

Admittedly faculty in educational technology have an advantage in that distance learning is both a pedagogical method as well as an area appropriate for research and scholarship. However, educational technologists are always looking for research partnerships in their applied discipline. Consider this an invitation to collaborate in longer term design-based research that you can do as part of your everyday teaching. Even with limited resources, this kind of research has rewards both in scholarship and in making a positive difference in your classes.

## AUTHOR INFORMATION

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**NOTES**