Technology-mediated Professional Development Courses

for Hawai'i World Language Educators

DATA-BASED NEEDS ASSESSMENT

The Hawai'i Department of Education (HIDOE) constitutes a statewide LEA with approximately 210 teachers offering instruction in 10 world (foreign) languages (Shimomoto, HIDOE, July 9, 2003).* One hundred thirty are regular, tenured, licensed teachers; the others have probationary or temporary credentials and are working to be fully licensed. All of the teachers need professional development for (re)licensing.

The Hawai'i Teacher Standards Board has implemented a license renewal process requiring teachers to successfully carry out an approved Professional Growth Plan in order to be issued another valid license for a five-year period. Such plans will logically include credit-bearing professional development courses. Additionally, teachers who might be seeking discipline reclassification or to add a discipline to their license are also required to undergo professional development activities.

On a regular basis in recent years the HIDOE World Languages Program has, on behalf of HIDOE teachers, requested workshops and other professional development activities from the College of Languages, Linguistics, and Literature. LLL has met these requests on an ad hoc basis, tailoring courses to meet special articulated needs. The time has come, however, to regularize UH professional development offerings for language educators by creating a new series of courses reflecting the state of the art in the field. Increasingly, as reflected in the NCLB request for proposals, the state of the art includes the integration of computer-related technology to enhance student learning. There is perhaps no better way to give teachers new technology tools than to use technology as the method of delivery for content-based professional development courses.

It is no accident that in his October 22, 2003, address to the faculty congress Chancellor Englert included distance education among his highest four priorities in the UH Strategic Plan. It is a hardship for

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^{*} A list of bibliographic references in this document is available upon request from Stephen Tschudi, sfleming@hawaii.edu.

O'ahu's teachers to come to UHM for professional development, and for Hawai'i's neighbor island teachers it is nearly impossible.

Hawai'i teachers, public and private alike, need online professional development to enable them to meet HIDOE requirements and become better educators. Thus, the Language Learning Center (LLC) of the College of Languages, Linguistics, and Literature (LLL) proposes to create and deliver online teaching methodology courses for Hawai'i world (foreign) language educators. This project will be conducted in association with the HIDOE World Languages Program and the Institute for Teacher Education (ITE) in the College of Education. The primary goal of the project is to create three, one-credit graduate and in-service courses to enhance teachers' knowledge of principles and instructional methodologies in their core academic subject, world (foreign) language, as well as the in use of computers and other technologies so as to in turn enhance student learning in Hawai'i's schools. (Letters of endorsement from Jean Toyama, Associate Dean of LLL; Anita Bruce, World Languages Specialist at HIDOE; and Mary [Beth] Pateman, Director of ITE, are attached.)

The format of the Web-based courses, which maximalizes integration of online and offline activities and makes optimal use of peer feedback and communities of learning to ensure a seamless fit between course content and teachers' in-service needs, will meet the requirements of teachers with diverse professional profiles and elementary and secondary teaching assignments. The "anytime, anywhere" nature of the course delivery maximalizes convenience for HIDOE teachers and will encourage and facilitate professional development in their field and in computer-related technology.

PLAN OF OPERATION

Instructional plan

This project will focus on the development, testing, and revision of online teaching methodology courses for Hawai'i world (foreign) language educators delivered via a technology-mediated format. This format will combine elements delivered online through the Web course with elements facilitating offline independent learning. The primary goal of the project is to create three, one-credit graduate and in-service courses to enhance teachers' knowledge of principles and instructional methodologies in a core academic

subject — world (foreign) language — as well as the use of computers and other technologies so as to, in turn, enhance student learning in Hawai'i's schools. A schematized outline of the curriculum is presented in Table 1, followed by a description of elements of the proposed courses and then an outline of the plan of action for this project.

Table 1. Course objectives, topics, and sample activities

COURSE A: LEARNING COMMUNITIES ONLINE & PRACTICAL ASPECTS OF TEACHING (ONE CREDIT)

	Objectives	Topics	Activities/ Mini-project(s)
A1: An online learning environment	Become familiar with an online class and gain knowledge and skills for using technology to exchange ideas.	needed software and other practical concerns the online environment (forum, e-mail, uploading & downloading, etc.)	Activities: Practice using technology before beginning work on content-based course material: upload and download a file. Try your sound and video files. Post a document to the forum. Send an email to the instructor; send an email to the class group.
A2: Creating community	Get to know the other members of the community; reflect on your own teaching experience; identify your own needs in the field.	needs analysis for language teachers communities of learning	Mini-project: A needs analysis for your language class or your school Develop the tools necessary to conduct a needs analysis considering the issues discussed in the topic readings. As part of your project, write a report reflecting on problems in implementing a needs analysis and practical solutions for these problems.
A3: Curriculum and lesson planning	Learn how to adapt, integrate and implement a language lesson unit; learn how to adapt, integrate and develop a language curriculum.	Elements of a language curriculum adapt an existing language curriculum create a language lesson unit	Mini-project: Develop a lesson unit plan Based on the mini- needs analysis conducted in chapter 2, develop a language lesson unit that addresses the results of the needs analysis. Include a reflection on any difficulties and how to resolve them.
A4:Assessment	Understand the Oral Proficiency Interview (OPI) and the Standards for Foreign Language Learning (SFLL); learn to assess language proficiency at different levels according to SFLL; explore alternative forms of assessment; develop your own assessment tools.	the OPI and ACTFL proficiency guidelines alternative forms of assessment: portfolios, electronic portfolios, peer /group assessment, self-assessment	Mini-project 1: Creating assessment tools Develop several forms of assessment for the lesson unit you created in the preceding chapter, explaining why you chose each form. Mini-project 2: Evaluating assessment tools (alternate) Select a test or exam that you currently use for one of your lessons and transform it into a different form of assessment. Administer it to your students. Write a report reflecting on how the assessment has changed: if it has improved as an assessment tool, what the problems were, etc. The report should also include students' views on the new form of evaluation.

Course B: Social aspects of Learning & Technology in the classroom (one credit — prerequisite: course A) $\,$

	Objectives	Topics	Activities/ Mini-project(s)
B1: Language teaching and language learning: The learning process	Examine current hypotheses of language learning; apply these theories to classroom teaching.	1) social interaction theory: (a) the interaction hypothesis and negotiation of meaning (Long), (b) ZPD and SLA theory (Vygotsky's theory of learning), (c) interactional competence (Mehan, Hall) 2) affective factors	Mini-project: Creating a lesson plan based on SLA theory Develop a lesson plan that incorporates theories of second language acquisition/learning (negotiation of meaning or scaffolding). Take into account the importance of language input, output and affective factors. Justify the use of each activity and explain how each contributes to language learning.
B2: Language teaching and language learning: The learner	Learn how students in different age groups learn best.	characteristics of elementary learners characteristics of middle level learners	Mini-project: Find about your students' motivations, desires and fears Interview at least three of your students or get the students to 'interview' themselves recording their answers. Alternatively, conduct a class debate about what is motivating for students and take notes on the discussion. Write a report reflecting on why students are motivated or not and what would motivate them to learn a language. Share your findings on this topic in the forum and compare/discuss results with other participants.
B3: Technology in the classroom	Familiarize yourself with tools that may help integrate technology into the language learning process; evaluate some of these technologies; incorporate technology into your teaching plans.	computer-mediated communication (CMC) the Internet and search engines curriculum WebQuest evaluating software	Mini-project: Implementing technology in your own classroom Prepare a lesson plan that incorporates use of a technology (CMC, chat rooms, Internet searches) in your language classroom or in collaboration with another area subject in their school (WebQuest).
B4: Other resources	Thus lesson is created collaboratively by participants.	Teacher-suggested topics: 1) state language associations under ACTFL 2) national language associations 3) Hawai`i State DOE	

COURSE C: SLA THEORY AND METHODS (ONE CREDIT — PREREQUISITE: COURSE A)

	Objectives	Topics	Activities/ Mini-project(s)
C1: Historical overview of approaches to language teaching	Explore the development of language teaching; acquire specific terminology; become familiar with current language teaching and language development approaches; implement a principle-based language teaching approach.	clarification of terminology historical overview of SLA paradigm shift in planning and teaching	Mini-project: Teaching approaches Implement of one of the learning approaches you have studied which has been empirically shown to promote SLA. Reflect on implementing the method in class. Mini-project 2: Teaching approaches (alternate for teachers not in service) Observe and describe a class, identifying its approach and its methodologies. Discuss how your observations are linked to theories of SLA.
C2: Current approaches to language teaching	Reflect on your own teaching approach; apply critical thinking to different techniques; identify and describe SFLL and the 5C framework; identify and describe a task-based language teaching (TBLT) framework; apply SFLL/TBLT framework to your own teaching experience; implement new techniques in the classroom.	task-based language teaching Standards for Foreign Language Learning – the 5 C's	Mini-project: Incorporation of current approaches to your classroom Prepare a lesson that includes the 5 C's for your language class and write a reflection including information about difficulties and practical constraints.
C3: Language teaching and language learning – Terminology	Identify and use specific terminology (language learning, language acquisition, foreign language, second language); understand how the "critical period" affects language acquisition; examine how language input and output contribute to language acquisition.	 critical period for language learning language input – Krashen's Monitor Model, Van Patten & Cadierno, 1993 Variable Competence Model (Bialystok, 1992, Ellis, 1997); language output and Swain's Pushed Output Hypothesis 	Mini-project: Language used in the classroom Videorecord your own classroom and analyze the tape to study the input and output the students receive and produce. Identify possible affective factors present in the class.

Elements of the courses

The proposed courses deliver instruction for pre- or in-service teachers of world (foreign) languages in a manner at once both effective and suitable for access by in-service professionals. The breakdown of the material into three one-credit segments is designed to provide flexibility to suit the needs of in-service professionals who may opt to take from one to all of the credits in a single academic semester.

In this section, the instructional objectives of the courses are discussed first, and then the special Web course environment that serves as a delivery platform for the courses is described and explained.

Instructional objectives

The instructional objectives of the three courses proposed in this project are threefold: (1) to provide second language teachers with new, appropriate and tailored knowledge about recent developments in second language acquisition research and about the practical application of that research to their daily teaching in a constructive and collaborative way; (2) to create a learning community in which the participants will grow in their professional knowledge and practice, will exchange ideas and resources, and will develop professional relationships that will extend to their schools and other language teachers; and (3) to help teachers learn, experiment with, and implement aspects of technology learning that may benefit their own teaching practices.

The lesson topics, broad instructional objectives, and a sampling of activities and project assignments in the three courses are given above in Table 1. Each content-focused lesson in the three courses includes a mini-project that the participants need to conduct and reflect upon. These mini-projects aim at linking theory and practice, and help the participants implement new theories and findings into their classrooms. These mini-projects will have a positive impact not only on the teachers who implement them, but also in their students and their schools. Participants will write a reflective essay on each of the mini-projects as part of an evaluation portfolio.

The courses incorporate several elements that address criteria in this competition. A brief discussion of each follows.

<u>Instructional objectives consonant with Hawai'i DOE standards</u>

The Hawai'i Department of Education defined content standards for world languages in 1999 (OASIS/SRG, 1999). The "essential skills and knowledge" (p. 2) defined in these standards, particularly the focus on the four strands of Communication, Cultures, Comparisons, and Connections and Communities and the principle of rubric-based assessment, are based on the Standards for Foreign Language Learning (SFLL) developed under the aegis of the American Council on the Teaching of Foreign Languages

(ACTFL). These standards are explicitly addressed in the first, prerequisite course of the series, where participants engage in guided exploration of how the SFLL apply to their own teaching situation.

Objectives consistent with available research and best practices

Recently, constructivist theories of learning and the practice of collaborative learning have received considerable attention in the field of education. The three courses are designed to reflect these advances in the state of the field. A constructivist theory of learning uses real open-ended problems or situations so that the learners develop skills for real life situations (Duffy & Jonassen, 1991; Bednar et al., 1992).

Constructivism implies learning in a social context, through group activities and collaborative learning (Bostock, 1998), in which each member brings his/her own expertise, and skills, and backgrounds to solve the problems (Wenger, 1998). Constructivism is especially suited for adult learners, since they learn well in situations in which they can apply their experience and pervious knowledge (Huang, 2002; Knowles et al., 1998). In this situation, the role of the instructor is that of facilitator, helping the students to develop cognitive and metacognitive strategies (Johnson, 2001).

In a constructivist view, students learn by using a collection of resources in a rich learning environment that is interactive, hands-on, and promotes building on knowledge for learning. (Perkins, 1991). In the education field such a learning environment is usually called a collaborative learning environment. A rapidly growing body of research supports the use of such a learning environment in higher education (Alavi, 1994; Astin, 1993; Baloche, 1998; Flynn and Klein, 2001; Gerstl-Pepin & Gunzenhauser, 2002, Goodsell et al., 1992; Gravett & Petersen, 2002; Johnson et al. 1991; Kinginger, 2000; Klingner & Vaughn, 2000; McKeachie, 1999; Singhanayak & Hooper, 1998). Online courses are especially suitable for this learning approach since distance learning allows student to engage in collaboration, discussion, teamwork, and problem solving. The diversity of discussion generated by students has the capacity to deepen students' approaches to assessments tasks, encouraging less reproductive learning and supporting more critical reflective work. (Jonassen et al., 1995; O'Reilly & Morgan, 1999).

Ensuring transfer of knowledge and skills to the classroom setting

As participants carry out the tasks in these three courses, they create and engage in a community of practice, or community of learning. The main goal of such a learning community is to advance the collective knowledge and to support the growth of individual knowledge. The emphasis is on sharing what the participants have learned and on learning how to learn. Online communities or virtual communities are an evolution from learning communities. They are forms of technology-mediated environments that foster a sense of community among users (Cuthell, 2002; Johnson, 2001; Swan, 2002). The constant cycling back and forth from the offline environment where participants carry out hands-on projects (see Table 1) back to the reflective space of the learning community is an effective means by which the participants can methodically integrate the knowledge they have gained in the course into their own praxis.

Modeling appropriate teaching behaviors and practices

The collaborative communities of learning constituted by the three proposed courses will comprise expert and novice teachers working together. Some of the participants will be expert, in-service teachers, while others may be novice or pre-service teachers. In terms of teaching praxis, in-service teachers are expert members at the center of the community while pre-service teachers are new and peripheral to the community, but still participating in the community. At the same time, those who are expert teachers may be technical novices who need to be eased into familiarity with the technologies that underpin the virtual community. This is what Lave and Wenger (1991) have denominated "legitimate peripheral participation" (Hung & Der-Tang, 2001; Wenger, 1998). Learning to operate in an online community successfully involves stages, moving from the peripheral area of novice apprenticeship to the center of knowledge. In line with the findings of O'Reilly and Morgan (1999), the courses facilitate participants' movement toward this "center of knowledge" by providing two distinct stages: a first stage in which they come to understand the technology involved in the environment (forums, email, Web sites, etc.) and a second stage in which they learn the norms, routines and etiquette of the community — what is commonly called "netiquette." At this point, individuals are ready to exchange ideas. Knowledge regarding teaching praxis can then be distributed among the members of the community, and each individual has access to it. In this

co-construction of knowledge, every individual voice is incorporated so that the result of the community is not the "efficiency" of the course per se, but the "efficiency" of the course for the students' goals and expectations (Kemmis & McTaggart, 2000). This idea of belonging to a group is one of the key factors that keep alive an online community (Rovai, 2002). Through this virtual mentoring process, guided by the course instructor, effective behaviors and practices for foreign language education are passed on from one teaching generation to the next while at the same time being exposed to critical analysis.

Learning technology by using technology

This online course will also provide the students (language teachers) with the necessary tools to learn about technological advances that will allow them to exchange ideas and maintain connections with other teachers in the state and the world. This form of collaboration has been proven an effective learning tool (Flynn & Klein, 2001; Gerstl-Pepin & Gunzenhauser, 2002; Kinginger, 2000; Klingner & Vaughn, 2000) allowing teachers to develop as professionals and members of the language world community. In addition, the concept of "learning by doing" will apply to the use of the technology while engage in the online course. They will learn to use an online environment effectively, uploading and downloading documents, maintaining e-mail, using the forum environment, etc. — all practical skills that they can then introduce in their own language classrooms.

Course environment

The three courses proposed for this project are based in a Web course environment that serves as a common point of reference for participants as well as a virtual space within which interactions critical to their learning take place. Elements of the Web course correspond to instructional activities that have been identified as effective for learning in traditional classroom environments. Elements of the Web course are detailed in Table 2.

Each element of instruction fulfills a distinct need in participants' learning experience. The social interaction area fosters a sense of online community, essential for a Web-based course. Clearly delineated instructions for offline assignments outline readings and reflective questions for participants as well as activities they can try in their own classroom (if they are currently in-service) or can role-play independently

(if they are pre-service or not currently assigned to teach). Most importantly, person-to-person Web-based communication provides two important kinds of opportunities for learners: the chance to get answers to questions and problems they may encounter during offline independent work, and the critically important opportunity to discuss the offline assignments in light of their particular experiences and to get feedback from both the instructor and their fellow participants. The integration of reflective discussion and peer feedback into the online portion of the course is based on the designers' understanding of learning as a series of cognitive events that occurs in the context of a community of learners who together construct knowledge.

Table 2. Elements of online instruction

WEB COURSE

SOCIAL INTERACTION AREA (builds learning community)
Social message boards, sharing of photos, favorite sites, etc.

INSTRUCTIONS FOR OFFLINE ACTIVITIES

Students receive directions on readings and activities to carry out offline.

READINGS

Content focuses on exposure to and initial use of language.

HANDS-ON ACTIVITIES

Content focuses on use of language in simulated real-world situations.

PERSON-TO-PERSON WEB-BASED COMMUNICATION

Instructors and participants interact via postings in various types of forums, text-based and/or with recorded voice.

SMALL GROUP

Students are combined and recombined in pairs or small groups for small-scale reflective discussions or creative activities such as lesson design.

GENERAL FORUM

All participants and instructors interact in one large space to discuss issues, troubleshoot problems, etc.

ESSAY TOOL

Participants use a Draft Book to compose and revise. When the essay is handed in, the instructor and other participants may provide comments. Submission of additional drafts of the same essay can be integrated into the same thread.

PORTFOLIC

When participants complete project assignments, they upload the project computer files to a personal portfolio accessible to all. The portfolio serves as a showcase and benchmark of the knowledge they have constructed.

The technology underlying the Web course environment proposed for use in this project, BRIX (see Sawatpanit et al., 2003), enables a number of features that greatly facilitate the construction of knowledge, in some ways more effectively than in the traditional classroom. For example, in areas of the course that facilitate person-to-person interaction, discussion is threaded into topics, thus adding an element of organization over and above that present in an ordinary spoken discussion. Furthermore, the entire discussion — which may take place via typed text or recorded speech, or a mixture of both — is preserved indefinitely on the course site. In essence, a portfolio of participants' work is automatically created as they complete their online reflective assignments.

No less importantly, since BRIX is built specifically to accommodate asynchronous modes of instruction, participants in the course are not restricted with regard to the location from which, or the times of day at which, they choose to participate in the course, as long as they complete their assigned tasks on schedule. Discussions typically range across the space of several days, allowing ample time for reflection and response.

The time commitment required per credit hour in this model is estimated to be roughly equivalent to that invested in a traditional face-to-face (F2F) course. In addition to the average one "contact hour" per week per credit students will spend on line with the instructors, they will spend approximately two hours in offline independent study reading, accessing material on the Internet, observing classes, or engaging in other independent study activities.

Plan of action

Activities in this project will be carried out in five distinct stages: development, beta testing, initial revision, field testing, and final revision. Most work is to be accomplished in spring and summer 2004. A timeline is shown in Table 3.

Development work in spring 2004 will follow the course outlines given in Table 1 above. The three courses will share a common portal, and content in all three courses will be freely visible to all participants. Each course will occupy approximately five weeks of instruction. Different participants will carry out different portions of the calendar of tasks depending on how many credits they have enrolled for: those enrolled for

one credit will first finish Course A, while others may opt to also finish Course B and/or C in the same academic semester. Once a participant has finished Course A, he may return to finish Course B and/or C in any order.

Table 3. Project timeline

SPRING 2004	SUMMER 2004	FALL 2004
DEVELOPMENT Flesh out daily tasks for Web courses, create "paper" design for course Create course Web sites in BRIX system	INITIAL REVISION Based on feedback from beta testers, revise courses to prepare for field test FIELD TESTING	Ready course Web sites for subsequent offering Deliver evaluator's final report
Create Web pages for static elements of courses (e.g., reading assignments and questions for reflection); place on course Web sites Using existing Web course tools, design and place dynamic elements of Web courses (forums, essay assignments) on course Web sites Using existing Web course tools, define evaluative criteria for course participants; place on course Web sites BETA TESTING	Enroll twenty HIDOE in-service field testers in special testing "semester" of Web courses Evaluator will obtain and synthesize detailed feedback from instructor and participants in field test FINAL REVISION Make appropriate final revisions to Web courses based on feedback from evaluator	
Beta test course sites with cohort of five HIDOE teachers		

A special summer workshop for field testing the courses is scheduled for summer 2004. This field testing will enable the project participants to enable detailed feedback critical for improving the design of the Web courses in time for the first official cohort to enroll.

Management Plan

Language Learning Center, College of Languages, Linguistics, and Literature

This project will be managed by David Hiple, Director of the LLC. He is also Associate Director of the USDOE-funded UH National Foreign Language Resource Center (NFLRC), housed in the LLC; he has extensive experience managing federal grants and contracts. The technology underlying the proposed course development, BRIX, was developed in-house over several years at LLC with NFLRC funds. BRIX is currently used to teach several LLL language and culture courses. Funding is requested to use the BRIX course shell to operationalize the language teaching methods courses described herein. Funding is

requested for released time for course designer Marta Gonzalez-Lloret, who is a Spanish Instructor in LLL and a PhD candidate in Second Language Studies at UH. One of her main interests is the application of new technology to language teaching and language acquisition. She has been incorporating online teaching components to her classes for over five years. LLC resources will be contributed to assist Marta Gonzalez-Lloret in the development of the courses. David Hiple, Stephen Tschudi, LLC Instructor in Technology for Foreign Language Education, and John Standal, LLC Information Technology Specialist, will assist Marta Gonzalez-Lloret in operationalizing the courses. LLC staff will contribute their time for the duration of this project.

World Languages Program, Hawai'i Department of Education

This project will be coordinated with the World Languages Program of HIDOE with the assistance of Anita Bruce, World Languages Specialist. David Hiple and Anita Bruce have collaborated on Hawai'i language articulation and professional development projects since 1991; he served on the committee to create the Hawai'i World Languages Content Standards with Anita Bruce at her invitation. The World Language Program will assist LLC in recruiting HIDOE teachers to beta test the online courses during Spring semester '04 and in publicizing and selecting teachers to field test one course in a workshop during the summer.

Institute for Teacher Education, College of Education

This project will be coordinated with the Institute for Teacher Education with the assistance of Mary (Beth) Pateman, Director of ITE. Beth Pateman has pledged the support and resources of ITE to carry out this project. Specifically, ITE will assist in recruiting and employing a student assistant and graduate student evaluator for this project. ITE will recruit and employ pre-service teachers in the College of Education to fill these student positions to assist in the development and the evaluation of the online courses to be created.

EVALUATION

The program evaluation will be conducted by a graduate student from a relevant subdiscipline of education or applied linguistics, to be recruited under the auspices of ITE. The evaluator's mission will be

twofold: 1) to serve as an expert consultant who will obtain and synthesize detailed feedback from field-testers of the courses so that the feedback the field test summer institute can be used to improve the courses, and 2) to write a final project report. The evaluator will be recruited and briefed on the project's goals and objectives during spring semester 2004, and will perform the bulk of evaluative work during the field test in summer 2004 and will deliver a final written report by the end of September 2004.

Feedback on the summer course will be obtained through online surveys, personal interviews, and observations online. Care will be taken to obtain permission from all observed subjects. Online surveys will be performed at the midpoint and endpoint of the course. The surveys will be derived from existing summative and formative electronic questionnaires that are a critical component of the UH advanced level on-line language courses currently on offer. In the existing advanced Web courses, students complete comprehensive surveys at three points during the academic term regarding perception of their own achievement, satisfaction and level of motivation, ease of use of the Web site, perceived utility of the learned material, etc. These anonymous, Web-based forms provide both quantitative data (scores) and qualitative data (verbal comments) that, together with input from designers and instructors, serve as a reference to suggest how well the materials are helping students meet learning goals and how the courses might be improved.

Such evaluative data is particularly useful during the pilot phase of course development, when student feedback often leads to significant revisions. In the existing advanced courses, for example, student feedback led to the creation of a means to place student pictures next to postings and also led to a change in the design of the "language clinic." The surveys currently in place will be adapted for evaluation of the three teacher education courses. The data gleaned from these questionnaires will contribute significantly to the project evaluation.

Evaluation of the kind that is to be found documented in well-known handbooks such as Patton (1990) and influenced by the naturalistic perspective on research in education exemplified by Lincoln & Guba (1985) will be employed to evaluate qualitatively. In addition to analyzing data gathered from the electronic surveys described above, the evaluator will conduct ongoing, virtual classroom observations of

online learning and will also interview students and instructors. The evaluator will prepare and submit a comprehensive final report at the conclusion of the grant period.