

IDENTIFYING THE BEST PRACTICES FOR USING HORIZONLIVE
TO TEACH IN THE SYNCHRONOUS ONLINE ENVIRONMENT

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to the Faculty of
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Master of Science
in
Instructional Technology

by

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DEDICATION

I would like to dedicate this work to my parents, Jim and Ellen Knolle, for their love and support, for their never-ending encouragement and for their patience and understanding.

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I would like to begin by expressing my deepest appreciation to my committee members, Dr. John Roussell and Dr. Tom Welsh. Dr. Roussell and Dr. Welsh have not only guided me through the completion of my Master's program but have provided guidance and mentorship throughout all of my studies at California State University, Chico. I will attribute any success I have to their influence.

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ABSTRACT

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The purpose of this study was to investigate the best practices for using HorizonLive to teach in the synchronous online environment. For this study, Chickering and Gamson's Seven Principles for Good Practice in Undergraduate Education were used as the theoretical framework.

Data was collected by means of three self-reported anonymous Web-based questionnaires. 56 full and part-time faculty at California State University, Chico were contacted via e-mail and asked to participate in the study. Of the 56 faculty, 28 responded to the questionnaires for a response rate of 50%.

The results of this study yielded a list of 68 strategies for addressing Chickering and Gamson's seven principles when using HorizonLive to teach in the synchronous online environment. The strategies were grouped based on the strategy they apply to and ranked according to effectiveness. In addition to the listed strategies,

participants' responses provided information used to form guidelines for implementing the strategies in the online classroom.

The strategies identified represent one snapshot relating to the use of HorizonLive on the CSU, Chico campus and its model for distance education courses. Participants in this study perceive these strategies to be effective when teaching in this environment.

CHAPTER I

INTRODUCTION

Background

Television has been widely used to support the delivery of distance education programs in higher education (Dunn, 2000). Institutions have broadcasted courses through microwave and satellite signals to students' televisions all over the globe. Today, due to rising costs of airtime and the availability of new and more efficient technology, these institutions are quickly scouting out new methods for meeting the needs of their distance learners. Many of the desirable qualities of a distance education delivery system can be found on the Internet. The Internet has become a common tool for communication and information sharing and with advances including video and audio streaming, it becomes an attractive solution for universities to explore.

The distance education programs offered by the California State University, Chico have experienced a similar transformation. In 1975, CSU, Chico began delivering college courses through a microwave-based transmission system known as ITFS (Evans, 2001). The system provided education to students throughout Northern California and was in use until the late 1990s. In addition to the ITFS transmission system, CSU, Chico began offering courses live over satellite to corporate partners and learning sites. More than 120 distance education courses were offered live via satellite until the program lost its primary funding in January 2001.

The university system recognized that the rising costs of satellite transmission could no longer be supported and turned to the Internet as a solution (Evans, 2001). Not only did the transition from satellite to Internet delivery carry monetary consequences, it also brought forth a change in the university's model for delivering distance education courses. Instead of the established "learning site" model, which required students to travel to designated sites to watch the satellite transmission, students were able to participate in online class sessions over the Internet from their home or work.

The two common approaches for Web-based distance education programs are asynchronous (self-paced, anytime/anywhere) and synchronous (live/real-time, interactive) (Evans, 2001). Although the university had already purchased WebCT, an asynchronous online teaching tool, for use by instructors on-campus, students and faculty in the distance education program had grown accustomed to video-based course delivery through microwave and satellite transmission (Layne, 2002). Administration and faculty chose to retain the video component as well as the live interaction by adopting the synchronous communication tool HorizonLive along with WebCT to support the majority of the distance education programs on the campus. The HorizonLive interface incorporates one-way video and/or audio lecture, presentation material, student polling tools and real-time chat (see Figure 1).

At the time of the transition, more than seventy-five faculty were involved in the distance education program and were comfortable teaching in the televised classrooms at CSU, Chico (Evans, 2001). The televised classrooms were modified to include video cameras and monitors to support satellite instruction but resembled a "traditional classroom" which supports lecture/presentation as well as instructor-student interaction.

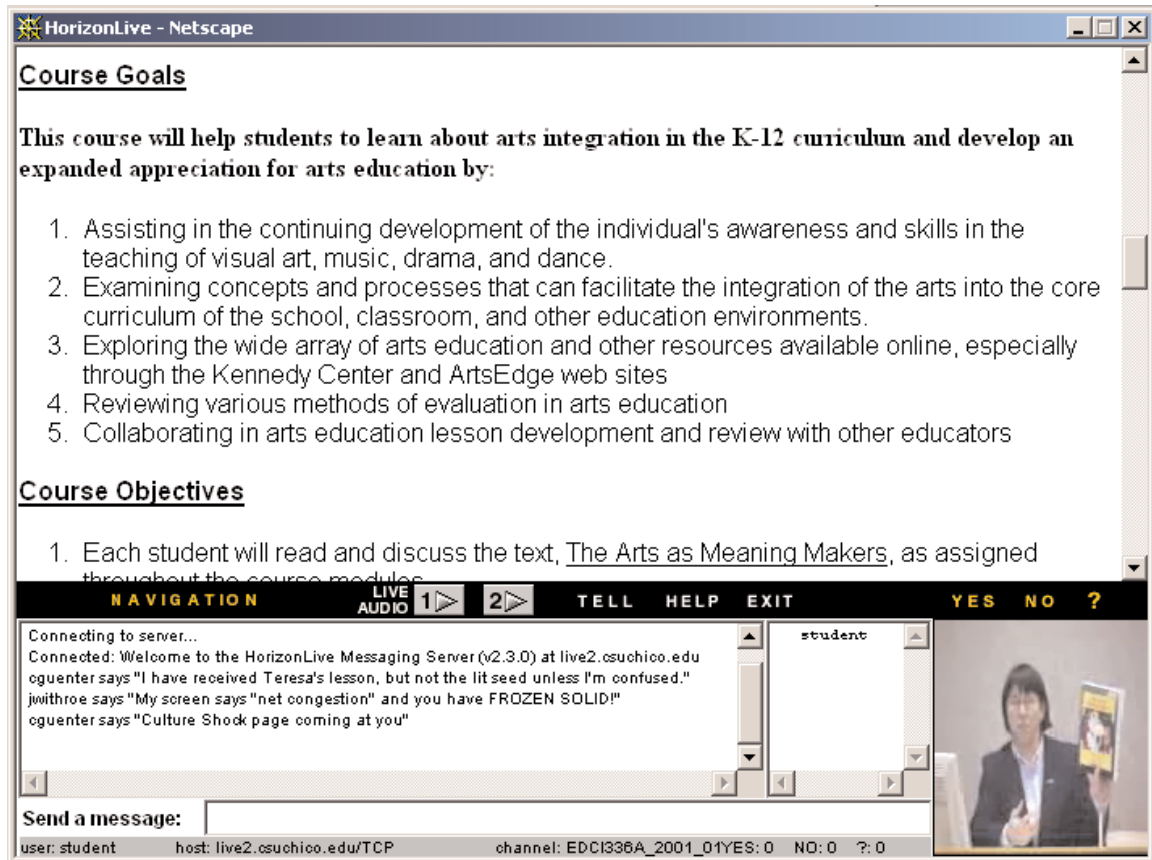


Figure 1. The Horizonlive Environment

During the summer of 2000, more than thirty faculty participated in training that was aimed at providing them with a basic understanding of the HorizonLive and WebCT technologies that they would use to develop and deliver their distance education courses. Initially, the training only provided instructors technology skills but later was revised to incorporate training in online pedagogy and student management.

Statement of Problem

While training in the use of technology-based tools is essential in understanding how the tool functions and what its limitations may be, it is equally important to understand how to effectively use the tools to meet the goal of providing effective

distance education instruction. Throughout higher education, instructors recognize many guidelines for effective classroom use including Chickering and Gamson's (1987) "Seven Principles for Good Practice in Undergraduate Education." However, as instructors at CSU, Chico have faced the challenge of teaching in the synchronous online environment, they discovered few or no guidelines to assist them in effectively leveraging the technology in the online classroom. Using a Delphi process, this study attempted to identify the most effective ways that the principles identified by Chickering and Gamson have been translated from the traditional classroom to the synchronous online environment by faculty at CSU, Chico. In determining the best practices for teaching in the synchronous online environment, the following questions were asked:

Research Questions

RQ1: After teaching in the synchronous online environment for one or more semesters, will CSU, Chico instructors be able to identify strategies for translating each of Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education" in their online environment?

RQ2: Given the set of strategies identified by the instructors for translating each of Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education" in the synchronous online environment, will the instructors rank strategies identified for any one particular principle higher than others?

Purpose of Study

Until recently, universities have relied on asynchronous technologies to support web-based distributed and distance education programs. These technologies provide

instructors with the ability to share information and communicate. While asynchronous technologies have been widely adopted by universities and research has been conducted as to the best practices for leveraging the technology to provide effective instruction, only recently have universities begun to adopt synchronous online communication technologies as a tool for delivering distance education.

There has been only limited research in the area of synchronous online communication technologies in education. The bulk of research that does exist relates to real-time chat for communication. The objective of this qualitative study is to identify how instructors can effectively translate the guidelines they have found to be successful when teaching in the traditional classroom setting to the synchronous online environment.

Theoretical Organization

Chickering and Gamson's (1987) "Seven Principles for Good Practice in Undergraduate Education" were used as a theoretical framework for this research due to the recognition of the principles in higher education, particularly at the CSU, Chico campus. In addition, research literature relating to effective teaching practices and the use of synchronous online communication technologies were investigated.

Limitations of the Study

Although CSU, Chico is considered a pioneer in distance education, the entire program is comparatively small. The total number of instructors that have received training and taught online with HorizonLive is less than 60 (Layne, 2002). The small sample size along with the fact that CSU, Chico has a unique model for delivering online courses provides adequate insight only into the effective practices for using the

technology in a model similar to the one adopted by CSU, Chico. While the Delphi decision-making technique is a common method for gathering data, the validity of the instrument that used to initiate the Delphi process in this study has not been verified. The process for which data will be gathered is described in detail in chapter three.

Definition of Terms

Synchronous e-learning. Communication and interaction take place at the same time (live/real-time) between students and the instructor. Synchronous interactions can include real-time chat or audio/video conferencing. HorizonLive is a product designed to provide synchronous interaction between instructors and students on the Web.

Asynchronous e-learning. When communication between people does not occur simultaneously. Asynchronous interaction is generally self-paced. WebCT is a product designed to provide an asynchronous learning environment for students and instructors.

Distance Learning. Instruction delivered to people who are geographically separated from the instructor and other students. Distance learning takes many forms including correspondence courses, satellite and microwave transmission and Web-based learning.

Course Management System (CMS). Software that manages interactions between the student and instructor in an online learning environment. A CMS often includes communication tools and course content. WebCT is an example of a CMS.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The role of the instructor and students in the traditional classroom environment has changed very little over the past few decades and both have grown comfortable with these roles (Merrill, 2001). Traditionally, students begin their university education with preconceived notions about the learning environment they are entering. The expectation is that instructors will exhibit didactic and formal teaching styles, primarily through lecture and seminar-based instruction, similar to those found in their prior school experiences. These familiar experiences are “part of the socialization process of learning the student roll” (Merrill, 2001, p. 5).

Now, both students and instructors are experiencing uncertainty and chaos in higher education due to changing educational environments and expectations (Magolda & Terenzini, 2001). The use of information technology in the classroom has reshaped the educational process by providing many new opportunities to learn under different conditions than those previously available. These technologies not only allow for new and different experiences in the classroom but enable educators to provide newer forms of instruction to students at a distance. While the existing expectations and prior experiences in the classroom have lead to norms and standard practices for

teaching, the influence of technology, specifically in distance learning, has provided opportunities to reexamine roles and redefine good teaching practices.

This review of available literature focuses on three core areas of teaching and technology that will impact the development of teaching practices and standards in the online environment. The first area explored is the best practices for classroom instruction and provides a frame of reference for which the new teaching environments can be compared and contrasted. Literature supporting faculty adoption of technology in teaching explores the motives that drive faculty to teach in the online environment. Finally, literature is presented that describes synchronous online communication technologies and their role in education. These three areas of research will drive the study to determine the best teaching practices in the synchronous online environment.

Best Practices for Classroom Instruction

In 1987, Arthur Chickering and Zelda Gamson published their work titled “Seven Principles for Good Practices in Undergraduate Education” as a response to the increasing criticism of higher education (Chickering & Gamson, 1987). In the document, the authors explain that the methods of “holding out carrots” and “beating with sticks” were not sufficient or effective methods for ensuring a successful educational experience. Instead, the authors identified the following seven principles to guide classroom instructors and provide focus for their work:

Good practice in undergraduate education:

1. encourages contact between students and faculty
2. develops reciprocity and cooperation among students

3. encourages active learning
4. gives prompt feedback
5. emphasizes time on task
6. communicates high expectations, and
7. respects diverse talents and ways of learning.

The principles, as described by Chickering and Gamson were not new concepts but were instead reminders of the qualities that can improve instructional experience for both the teacher and the students. The authors explain that the principles “rest on 50 years of research on the way teachers teach and students learn, how students work and play with one another, and how students and faculty talk to each other” (1987, ¶ 6).

The principles do not attempt to define what material is taught or what methods or environment for delivery are appropriate (Cross, 1995). Instead, they are intended to identify methods for increasing the effectiveness of the instruction by providing guidelines for how the teacher and students can interact and communicate.

According to Cross (1995), “Seven Principles for Good Practice in Undergraduate Education” is one of the best-known and possibly the most frequently quoted collection of research related to instructional strategy and has been adopted as guidelines by institutions across the country. In 1997, California State University, Chico’s Provost Scott G. McNall and a group of faculty and staff convened to discuss tactics for meeting the university’s strategic priority #1: “to create and enhance innovative, high quality, and student-centered learning environments” (CSU, Chico, 1997, ¶ 2).

The taskforce, under direction of the Provost, set out to “identify effective teaching techniques, appropriate use of educational technology, and reliable methods of

assessing learning” (CSU, Chico, 1997, ¶ 5). They decided one method for reaching their goal was to implement Chickering and Gamson’s seven principles as guidelines for faculty and students on the CSU, Chico campus. CSU, Chico is one of many universities that has adopted the seven principles to guide instruction. Tools such as the faculty inventory and institutional inventory, which were developed in the late 1980s, are often implemented by these universities to assess their effectiveness in meeting the seven principles (Grahm, Cagiltay, Lim, Craner & Duffy, 2001).

The importance of fulfilling the seven principles is becoming more and more apparent as new modes for delivering instruction emerge. Each of the principles reflects qualities that contribute to positive learning experiences (Cross, 1995). For example, increases in socialization and collaboration, which is the basis for the first two principles identified by Chickering and Gamson, are considered key objectives for traditional institutions. These objectives are considered to be essential in society because the development of scholars and leaders is enhanced when student-faculty interactions are fostered in and out of the classroom.

While Chickering & Gamson’s principles have been implemented on campuses across the country, it is important to note that they have also been translated to apply in various environments and instructional situations including the online environment. In 2001, Grahm, Cagiltay, Lim, Craner and Duffy (2001) from Indiana University’s Center for Research on Learning and Technology (CRLT) used the principles to evaluate four online courses at their university. The evaluation focused specifically on the course materials presented to students, discussion-forum postings, and faculty perceptions. A recent

trend in higher education finds that other universities are evaluating their distance and online courses based on Chickering and Gamson's principles.

In response to the emergence of new and different environments for teaching and learning, nearly a decade after publishing the seven principles, Art Chickering collaborated with Stephen Ehrmann to publish guidelines for implementing the seven principles in the online environment (Chickering & Ehrmann, 1997). In the article, the authors make the point that "Any given instructional strategy can be supported by a number of contrasting technologies (old and new), just as any given technology might support different instructional strategies" (§ 4). The guidelines address important issues including study groups and collaborative learning, reflection exercises and feedback but focus almost entirely on interactions in the asynchronous online environment.

While instructors have become familiar with traditional classroom instruction and the guidelines and standard practices that support it, many instructors face the challenge of transitioning their course to the online environment. The transition in itself is not an easy task and with few guidelines for developing and delivering online curriculum it becomes more difficult. The lack of guidelines for online teaching leaves faculty to rely on gut instinct and even trial and error which can lead to frustration and dissatisfaction.

Faculty Motivation to Participate in Online Teaching

Universities across the country are feeling the impact of online learning, one of the newest forms of distance-learning (Dunn, 2001). It is estimated that nearly 50,000 university level courses are now delivered on the Web and contribute to a variety of certificates, bachelor's degrees, master's degrees, and a handful of doctoral

degrees now offered online. Universities all over the globe are quickly adopting models of distance learning to keep up in this growing educational market and those who do not will likely find themselves left behind.

As quoted in Dunn (2000), management theorist Peter Drucker predicts that “traditional universities as we know them will become a big wasteland in the next 25 years” and the Association of Governing Boards predicts, “one third of the existing independent colleges and universities in the U.S. will close in the next 10 years” (p. 32).

As institutions rely more on distance education technologies to compete in this educational market and expand enrollment it will be faculty who will bear the responsibility for developing online learning environments and teaching in this new environment (Smith, 2001). Instructors will find that this new environment is far different from the traditional classroom they have learned to teach in and requires a higher degree of technical competency than ever. One of the most obvious differences between distance education and traditional instruction is that in distance education the instructor and students do not have the usual face-to face contact that they would experience in the classroom.

As universities jump on the distance education bandwagon, the faculty, who are often described as “persuaded volunteers” at best or “coerced conscripts” at worst, will bear the responsibility of learning new technologies, developing courses and teaching in the online environment while continuing to fulfill their existing responsibilities (Coppola, 2001). Due to the relative newness of Web-based teaching and learning, faculty and universities are finding that existing policies and guidelines relating to the teaching process and compensation are no longer applicable.

The online learning environment differs from the classroom in many ways; one of the most important aspects is that the teaching and learning process is spread out over time rather than being restricted to a specific time or day (Kearsley, 2001). Another important difference is that online teaching does not involve presentation or performance like traditional classroom instruction; instead it involves much more organized classroom activities, well defined assignments, and a higher level of instructor-student communication on issues from content to technical problems.

Online instructors must begin to reexamine their role as teacher and create a structured online classroom where students are encouraged to find value in their interactions with the instructor and other students as resources for learning rather than memorization of lecture-type material presented by the instructor (Coppola, 2001). A common comparison is drawn in online instruction by describing the traditional classroom instructor as the “sage on the stage” and the online instructor as the “guide on the side.” One of the most critical roles of the online instructor is to provide students with motivation and encouragement to complete online activities in addition to providing content.

CSU, Chico is committed to further developing their role in the delivery of distance education. The Center for Regional and Continuing Education’s Web site lists seven online degree programs which have been instituted at CSU, Chico and university administration has recognized online learning as being essential to the future of the institution. The university’s commitment to the use of technology in education is reiterated in the statement from provost’s office on student learning environments:

Believing in the value of the wise use of new technologies in learning and teaching, we will continue to provide the technology, the related training, and

the support needed to create high quality learning environments both in and outside of the classroom. CSU, Chico, a pioneer in distance education and a leader in information and instructional technology, has a history of offering faculty, staff, and students up-to-date curriculum, equipment, and technological services. It also has an excellent record of partnerships with corporate leaders that enrich the learning environment and open career doors for students (CSU, Chico, 2001, ¶ 3).

When funding disappeared for the satellite-based distance education program, CSU, Chico was left with the challenge of finding a suitable replacement for the delivery of the distance education program and turned to the Web for possible solutions (Layne, 2002). A committee of university faculty and staff gathered to evaluate and select a Web-based distance learning solution. Among the criteria the committee identified, video delivery and synchronous communication were identified as essential characteristics of the solution. After evaluating various products, the committee recommended HorizonLive, a Web-based synchronous communication tool, to replace the vanishing satellite technology.

Synchronous Online Communication Technologies in Education

Instructors are generally motivated to do an exceptional job of teaching in any environment and have grown accustomed to teaching in the face-to-face classroom which, as previously discussed, is often guided by teaching strategies including Chickering and Gamson's seven principles (Graham, Cagiltay, Craner, Lim & Duffy, 2000). Despite their motivation, instructors are not always aware of the strategies that contribute to success in the online teaching environment.

An increasing number of institutions have adopted one or more asynchronous technologies for the delivery of online courses. These technologies, including WebCT,

BlackBoard and a handful of others, are being used with varying degrees of success and numerous attempts have been made to associate the tools available in these environments to Chickering and Gamson's principles (Graham, Cagiltay, Craner, Lim & Duffy, 2001). Hallam (2000) of WebCT, one of the largest course management systems, which provides a suite of tools for online teaching and learning, has developed a modified version of Chickering and Gamson's seven principles. In WebCT's version, strategies are presented for achieving the many of the seven principles using the tools available in their product.

In addition to asynchronous online technologies, many universities have chosen to implement synchronous online communication technologies such as text chat, one and two-way audio conferencing and video conferencing (Marjanovic, 1999). These technologies allow real-time interactions to occur in the online environment which supports communication and collaboration between users.

The interactions made possible through synchronous communication technologies allow participants to experience "same-time, same-place" or "same-time, any-place" collaboration. This collaboration demonstrates the important traits of immediacy, faster planning, problem solving, scheduling and decision making which can be difficult to replicate in the asynchronous environment (1999). In addition to communication, synchronous online communication technologies are designed to provide computer-mediated collaboration. The technology is not intended to replace traditional face-to-face communication or allow students to "hide" behind their computers during the collaboration process. Instead, it allows students and the teacher to engage in active learning activities that can lead to improved problem-solving, critical thinking and communication skills.

Universities are adopting these synchronous online communication technologies in response to growing evidence that the collaboration possible in this environment can help students achieve “‘deeper’ understanding and greater skill development” (1999, p.130). These results are achieved by actively engaging students in the learning process moving them from spectators in the online classroom to active participants in online discussions and virtual presentations. In addition to positive academic results, synchronous communication and collaboration in distance education programs can have important social dimensions which contribute to positive outcomes including self assurance and personal insight (Hodgson & McConnell, 1995).

Instructors can take advantage of synchronous online communication technologies when delivering instruction online. Unlike traditional classroom lecture, which involves an instructor communicating facts and information to a group of students, students can participate in discussions with the instructor and other students as information is presented (Marjanovic, 1999). This communication allows students to ask questions and share information related to the presentation and when facilitated to prevent students from moving off topic or distracting others, can be effective. Instructors lecturing in the synchronous online communication environment often observe more interactive learning than is possible in the traditional classroom. In this environment, students can silently communicate by typing text messages to other participants without disturbing other students or interrupting the instructor. These interactions provide beneficial side effects for both students and the instructor. The teacher can refer to these questions throughout the lecture and can use them to stimulate discussion and students can see questions posed by others which gives them a better perception of their own level of learning.

Electronic collaborative learning requires instructors to rethink and change their own assumptions about teaching and learning (1999). Regardless of an instructor's experience with classroom instruction, in order to take advantage of the benefits provided by incorporating synchronous activities in the online environment, they must possess basic computer skills and a sound understanding of the technology through which they will be delivering the instruction. These skills will contribute to their ability to utilize the technology for communication and must be augmented by problem solving and team management skills in order for the educational experience to be successful.

Summary

Face-to-face classroom instruction has become a common method for delivering instruction in all levels of education. Instructors teaching in this environment have the ability to rely on existing models of classroom instruction as well as commonly accepted guidelines such as the Seven Principles for Good Practice in Undergraduate Education presented by Chickering and Gamson (1987). These guidelines include the following:

1. Encouraging contact between students and faculty
2. Developing reciprocity and cooperation among students
3. Encouraging active learning
4. Giving prompt feedback
5. Emphasizing time on task
6. Communicating high expectations, and
7. Respecting diverse talents and ways of learning.

In higher education, universities are rapidly adopting models for Web-based instruction to meet objectives including remaining competitive in the educational market and expanding enrollment. As these universities adopt policies and programs to implement distance education programs instructors are left with the burden of developing and delivering the online instruction. While the Web is becoming a more common tool for delivering distance education courses, the technology available for this delivery is rapidly changing. It is no longer enough for faculty to adjust to the change from classroom to Web-based instruction; instead they face an ever-changing environment with few or no guidelines to assist them.

Synchronous online communication tools like HorizonLive provide online instructors with the ability to regain some of the interaction and communication in a real-time environment that is as close to the classroom experience as they can get in the online environment. By using the HorizonLive technology, instructors can recreate many of the typical classroom activities in the online environment that they would be unable to address in the asynchronous online environment. Even though synchronous online communication technologies are becoming more common in education and provide instructors with the ability to transform classroom experiences into the online environment more easily than asynchronous tools, they still lack knowledge of how to use them to effectively meet their instructional goals.

Research Questions

CSU, Chico faculty and staff chose HorizonLive as their tool for delivering synchronous online instruction because of its similarity to the satellite delivery and to

traditional lecture. For this reason, faculty will likely be able to identify many teaching practices used in the traditional classroom that they have employed when teaching in the synchronous online environment. The results of the literature reviewed for this study and the overall purpose of the study have contributed to the following research questions.

RQ1: After teaching in the synchronous online environment for one or more semesters, will CSU, Chico instructors be able to identify strategies for translating each of Chickering and Gamson's seven principles for good practice in undergraduate education in their online environment?

RQ2: Given the set of strategies identified by the instructors for translating each of Chickering and Gamson's seven principles for good practice in undergraduate education in the synchronous online environment, will the instructors rank strategies identified for any one particular principle higher than others?

CHAPTER III

METHODOLOGY

Overview

The purpose of this study was to gather and evaluate strategies for addressing each of Chickering and Gamson's Seven Principles for Good Practice in Undergraduate Education when teaching in the synchronous online environment with HorizonLive. The resulting list of strategies will serve as guidelines for future instructors when teaching in the synchronous online environment.

Design of Study

The data for this study was collected by means of a Delphi decision-making process consisting of three self-reported, anonymous questionnaires (Dunham, 1996). The Delphi process was chosen because it supported the ability to elicit information and judgment from the group of participants and facilitate the decision-making process without physically assembling the group. During the study, information was exchanged via e-mail and Web-based questionnaires. Other key factors supporting the use of the Delphi technique include its inherent ability to protect the decision-making process typical group decision-making pitfalls including "group-think" and over-dominate group members and also providing for equal input from all group members (Cline, 2000).

Participants

The instructors included in the survey sample were drawn from the population of all full-time and part-time faculty who have taught online courses using HorizonLive at CSU, Chico since January 2000. 56 faculty were identified from the Chico Distance and Online Education Program and the Chico Education Network as having taught in the online environment. Each of the 56 were included in the study and received the questionnaires.

Procedure

The following steps were conducted during the Delphi decision-making process involving CSU, Chico faculty. The steps identified below are based on the Delphi decision-making process described by Dunham (1996).

Step One. Create and administer the first questionnaire. The first Web-based questionnaire administered in this study served to collect initial ideas from participants regarding strategies for addressing Chickering and Gamson's seven principles (Appendix A). Participants were contacted via e-mail and asked to visit the first Web-based questionnaire online where they would engage in individual brainstorming in order to generate as many ideas as possible. Instructions on the questionnaire explained to participants that ideas did not need to be fully developed and that one brief sentence or phrase is sufficient. Responses to the Web-based questionnaire were collected via e-mail. During the administration of the first evaluation, no attempt was made to evaluate or justify any of the responses. A total of 168 ideas were collected from this questionnaire.

Step Two. Create and administer second questionnaire. The second questionnaire was created by compiling all of the ideas sent in response to the first questionnaire and soliciting input again through a Web-based form (Appendix B). The ideas collected in step one were clustered to form 69 aggregate responses which made up the prompts for the second questionnaire. Participants were contacted via e-mail and asked to visit the second online questionnaire where they would refine each of the ideas listed and comment on their strengths and weaknesses. In addition to the ideas listed, participants were also asked to continue the brainstorming started in step one to identify new ideas. As with the first questionnaire, at this time, no attempt was made to evaluate or justify any of the responses.

Clustering of the responses in this step was done based on the similarity of ideas and the teaching strategy they addressed. Table 1 shows the responses gathered for the first prompt in questionnaire 2, the clustered prompts derived from this list for the final questionnaire are shown in Table 2.

Step Three. Create and administer final questionnaire. As is expected in the Delphi technique, dominant, highly evaluated ideas emerged through group consensus (Dunham, 1996). During this step, a formal assessment was conducted of the list of ideas that have emerged from the group through a final questionnaire (Appendix C). The final questionnaire listed all dominant ideas for each of the seven principles and asked participants to assess the merit of each idea by rating them on a scale of 1-7 based on their effectiveness in addressing the corresponding principle. Again, participants were contacted via e-mail and asked to visit the online questionnaire to record their responses.

Table 1

Sample of results from questionnaire #1

Brainstormed strategies for encouraging contact between students and faculty in the synchronous online environment using HorizonLive.

1. verbally respond to student questions posed in the chat room
 2. Responding to their questions verbally as well as in writing
 3. hold online 'office hours' - using
 4. verbally ask questions during the lecture - have them respond in the chat room
 5. Acknowledge online students' comments throughout entire class session
 6. offer points for meaningful contribution via chat box
 7. put students in chat rooms and join various rooms to chat
 8. have students indicate in the chat room if they have something they would like read to the class
 9. have each student respond with an answer to a different part of a question
 10. students introduce themselves to the class by using the chat feature
 11. students vote on yes or no answers in class lectures
 12. call on individual students, either at random or in such a way as to ensure that each person is called on at each class session
 13. pose questions, then pause to permit enough time for replies to arrive, then make sure to comment on some or all of them
 14. require each student to make some sort of comment or raise a question at each meeting of the class, or perhaps at least once per week
 15. present online field trips or web explorations and have students report their findings back to instructor
 16. Engage in brief conversation with online students prior to the beginning to each class session
 17. Engage in brief conversation with online students immediately after the end of each class session
 18. End most class sessions thanking online students for contributions to class session
 19. Use names of students who are in the field and ask each for specific responses during the course of the class that they can type in on the chat
 20. Divide into small groups in real time; give them questions to answer, working for a few minutes; then share verbally with whole group
-

Step Four. Data Analysis After gathering the final questionnaire, the results were tabulated and ideas were ranked based on total points received and the number of people who voted for each idea. The results from each step are described in chapter four.

Table 2

Sample of prompts from questionnaire #2

Prompts for questionnaire #2 clustered into aggregate responses.

1. Respond to student questions verbally as well as in writing
 2. Ask questions during the lecture and have students respond in the chat room
 3. Acknowledge students comments throughout the class session
 4. Offer points for meaningful chat room contributions
 5. Break students into small chat groups and visit each group to monitor discussion
 6. Call on each online student to answer a different part of a question
 7. Have students introduce themselves in the chat room
 8. Call on individual students by name and ask them to answer a question or make a comment
 9. After completing assignments or exercises, have students report back to the instructor in the chat room
 10. Before or after the class lecture, engage in brief conversation with online students
 11. End the class session by thanking the online students for their participation
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CHAPTER IV

RESULTS

Introduction

This study explored strategies identified and evaluated by participants for addressing Chickering and Gamson's (1987) seven principles for good practice in undergraduate education in the synchronous online setting using HorizonLive. The results of the study are presented in two parts in this chapter. Part one outlines the strategies identified in the study ranked according to their perceived effectiveness in meeting the seven principles. Part two presents the explanations provided by the participants regarding the strengths and weaknesses of each strategy.

Results

Identification and evaluation of the best practices for teaching in the synchronous online environment with HorizonLive

During phase one of the study, participants identified strategies for addressing the seven principles in the synchronous online environment (Appendix A). The strategies identified were evaluated in phase two and three (Appendix B). The results of the final phase yielded the following lists of strategies (Tables 3-9) ranked according to their perceived effectiveness in meeting the principle in the synchronous online environment:

Table 3

Strategies for encouraging contact between students and faculty in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P1-03:	Acknowledge students comments throughout the class session	171	6.11
P1-01:	Respond to student questions verbally as well as in writing	152	5.43
P1-10:	Before or after the class lecture, engage in brief conversation with online students	149	5.32
P1-08:	Call on individual students by name and ask them to answer a question or make a comment	138	4.93
P1-04:	Offer points for meaningful chat room contributions	134	4.79
P1-07:	Have students introduce themselves in the chat room	125	4.46
P1-02:	Ask questions during the lecture and have students respond in the chat room	113	4.04
P1-05:	Break students into small chat groups and visit each group to monitor discussion	110	3.93
P1-09:	After completing assignments or exercises, have students report back to the instructor in the chat room	102	3.64
P1-06:	Call on each online student to answer a different part of a question	101	3.61

Note. n = 28

The data in tables 3 through 9 represent strategies for addressing Chickering and Gamson's seven principles identified by CSU, Chico faculty who participated in this study. Of the strategies identified, eight received an average rating of 6.0 or higher out of a possible 7 when ranked according to effectiveness. Three of the eight highest

Table 4

Strategies for developing reciprocity and cooperation among students in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P2-08	Ask students to address questions raised by each other	157	5.61
P2-09:	At the beginning of the semester, ask the online students to briefly introduce themselves to the class	149	5.32
P2-04:	Create an open forum during class for students to respond to each other's questions, concerns, and suggestions	137	4.89
P2-10:	Encourage interaction between on-campus an online students by having students from one group respond to questions and comments from the other	136	4.86
P2-05:	After small group discussions in the Breakout Rooms, have one "spokesperson" for each group report back to the class	134	4.79
P2-01:	Divide the class into small groups using Breakout Rooms and give them a topic to discuss or task to complete	131	4.68
P2-03:	Inform online students when they are physically close to other online students	125	4.46
P2-02:	Form debate teams and using Breakout Rooms, have the students discuss central topics before reporting back to the class	117	4.18
P2-11:	Enable online students to use the eBoard to communicate ideas with the rest of the class.	110	3.93
P2-07:	Provide opportunities for peer review of assignments and projects during the live class session	102	3.64
P2-06:	Create a "jigsaw" situation where each student completes a portion of the "whole picture."	102	3.64

Note. n = 28

Table 5

Strategies for encouraging active learning in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P3-03:	Present relevant data using the course content area and help students discuss the data and interpret its meaning	161	5.75
P3-08:	Ask students to share their conceptual understanding, opinions, beliefs, etc. of a given notion discussed during the online class session	154	5.50
P3-09:	Provide students with the topic of the following week's class and provide them with questions that they will need to answer during the next lecture	150	5.36
P3-07:	Use case studies, vignettes or other exercises during class sessions and ask students to respond via chat	149	5.32
P3-01:	Use projects requiring group collaboration in the Breakout Rooms and interaction regarding course materials and subject matter	133	4.75
P3-10:	Make some material only available during the live lecture or archive, require them to view the lecture to access the material (do not make it available in WebCT or other location)	133	4.75
P3-02:	Present course material in a Q&A format and encourage students to use personal illustrations or interpretations to answer the questions	130	4.64
P3-04:	Require attendance and participation during the live online class session	123	4.39
P3-05:	Give assignments that may only be completed during the synchronous class session and require the participation of all students	122	4.36
P3-11:	Enable students to use eBoard to present information and demonstrate ideas	116	4.14
P3-06:	Use interactive Web quests and Web explorations to have students research relevant topics during the class session	105	3.75

Note. n = 28

Table 6

Strategies for giving prompt feedback in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P4-07:	Verbally recognize the contribution of students in the chat area	164	5.86
P4-06:	Begin each class session with a recap of previous lecture and answers to lingering questions and open issues	161	5.75
P4-01:	Provide feedback to student's questions and comments both verbally and in writing during the online class	152	5.43
P4-03:	Set aside class time for questions and answers separate from the lecture	151	5.39
P4-02:	Have an assistant respond to the student's questions and comments in the chat room	126	4.50
P4-05:	Use the polling tools to collect student responses and discuss the results and their implications	126	4.50
P4-04:	Display written feedback to student assignments and activities in the content area or eBoard	120	4.29

Note. n = 28

scoring strategies related to principle six, communicating high expectations, when using HorizonLive to teach in the synchronous online environment.

The strategies presented are valuable in determining approaches for teaching in the synchronous online environment, however many factors will influence the effectiveness of any of the strategies listed. Guidelines for implementing the strategies are found in the following section.

Table 7

Strategies for emphasizing time on task in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P5-08:	Have materials, Web sites, and information organized and ready to use prior to the class session	179	6.39
P5-05:	Focus the discussion and lecture in class by displaying slides showing the current course topic or discussion items	169	6.40
P5-06:	Display an outline for each class session that identifies the topics to be covered during the session	167	5.96
P5-09:	Check in with students regarding the status of their projects, assignments, papers, etc. and see if they have any questions or need any assistance.	153	5.46
P5-11:	Begin the class by displaying the course objectives for the module or section that you are currently discussing and explain how the day's lecture or discussion is relevant to the objectives	150	5.36
P5-01:	Establish guidelines for interactions in the chat room regarding etiquette and participation	148	5.29
P5-04:	Send private messages to students who are not participating or contributing to the chat and encourage them to respond	138	4.93
P5-12:	During the class session, ask for mini "progress reports" for upcoming papers, assignments or projects	134	4.79
P5-07:	Create an outline of the day's course topics on the eBoard at the beginning of the class session	133	4.75
P5-10:	Provide students with copies of the lecture notes or outline prior to each class session	130	4.64
P5-02:	Review attendance reports to see who was online during the session and contact those who chose not to participate	126	4.50
P5-03:	Require written responses to activities or assignments to be completed during the online class session	120	4.29

Note. n = 28

Table 8

Strategies for communicating high expectations in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P6-02:	Model high expectations when teaching in the online environment through quality lecture material and feedback to students	183	6.54
P6-01:	Refer to the course syllabus, grading scale, and requirements during the online class session to clarify expectations for projects, assignments, etc.	182	6.50
P6-03:	Show detailed descriptions of assignments and rubrics for grading when introducing assignments or projects to students	169	6.04
P6-07:	Reinforce expectations regarding student behavior repeatedly throughout the class session	156	5.57
P6-06:	Provide sample tests or tests from previous semesters as examples or study guides for upcoming quizzes and tests	138	4.93
P6-04:	Require student attendance and participation in the live online class sessions	131	4.68
P6-05:	Show models or examples of excellent work in the content window and praise the students who created them	130	4.64
P6-08:	Use a bell curve in grading and ask students with high scores to share their work with the class	82	2.93

Note. n = 28

Guidelines for effective use of the strategies identified in this study when teaching in the synchronous online environment with HorizonLive.

In addition to collecting strategies for meeting the Chickering and Gamson's seven principles in the online environment, this study collected feedback from participants regarding their experiences implementing the strategies in the online environment. The feedback has been summarized for each of the principles and reported in this section.

Table 9

Strategies for respecting diverse talents and ways of learning in the synchronous online environment using HorizonLive

Idea #	Strategies identified for addressing principle	Number of Votes	Average Rating
P7-08:	Reframe students' comments when necessary to facilitate others' understanding of the issues	175	6.25
P7-01:	Vary activities, lecture, Q&A, discussions and guest speakers during the class session	169	6.04
P7-02:	Encourage a variety of possible assignment formats such as partner projects, formal papers, presentations, or videos	160	5.71
P7-04:	Solicit input from students to incorporate different perspectives in the class lectures and discussions	160	5.71
P7-07:	Display visual images of the topics and concepts you discuss during the lectures and presentations	159	5.68
P7-03:	Vary the types of tests administered in the class (i.e. objective, subjective, take home, in class, etc.)	146	5.21
P7-05:	Use visual cues such as animated movements and facial features when on camera during the class session	146	5.21
P7-09:	Type key points from your lecture on the eBoard as you speak	145	5.18
P7-06:	Allow students to choose to attend the live class session or view the archive	141	5.04

Note. $n = 28$

Guidelines for Principle One. Encouraging contact between students and faculty when using HorizonLive to teach in the synchronous online environment.

• **P1-01: Respond to student questions verbally as well as in writing.** Due to occasional problems with streaming video and audio transmission it is important to respond to students both verbally as well as in writing to ensure effective communica-

tion. By communicating through the chat as well as verbally, the instructor can help to more effectively engage online students in the classroom communication as well as address multiple learning styles of his or her students.

Unless the instructor is able to type and talk at the same time, this strategy can slow down the classroom interaction and interrupt the lecture. Utilizing an assistant to aid in the communication, the instructor can overcome this obstacle yet still increase dialog with the online students.

• **P1-02: Ask questions during the lecture and have students respond in the chat room.** Asking students to respond to questions raised during the lecture by typing into the chat room is an effective strategy for keeping students involved and encouraging participation. By soliciting responses from online students, the instructor creates an opportunity for students to interact with the instructor and among themselves about course content.

Instructors teaching simultaneously to online students and students in the physical classroom face the obstacle of being able to integrate the two audiences. Focusing too much attention on either audience can create a greater gap between the two populations. If the interaction is not structured effectively, the on campus students may get impatient with the instructor's interaction with the online students. Additionally, the response time of online students is higher due to issues of bandwidth and connectivity. Without effective guidelines for chat room use, online students often stray from the topic and chat about unrelated subjects more often than students in a classroom setting.

• **P1-03: Acknowledge students comments throughout the class session.** The strategy of acknowledging student comments throughout the class session including

reading online students' comments out loud so on campus students can acknowledge the online students' contributions. The instructor should build in time to pause the lecture or discussion to acknowledge student comments. While this strategy seems straightforward and obvious, it is essential to acknowledge online students in order to keep them engaged and focused on the class session. In addition to acknowledging the student comments, the instructor can foster interaction among students by encouraging them to acknowledge and respond to each other's comments.

One of the key strengths of HorizonLive is that it allows live interaction to take place in the online environment which keeps students engaged and can unify the learning community among students on campus and online by allowing each group to participate synchronously.

Due to the high volume of comments from the online students, it may be difficult to acknowledge each student's comments during the live session while the in-class audience and other online students are waiting. The instructor should take time to review chat logs at the end of the session and respond via e-mail or another form of communication at a later time.

• **P1-04: Offer points for meaningful chat room contributions.** While the technique of offering points for meaningful chat room conversations only applies to students in the online section of a HorizonLive course, it can be used as the equivalent exercise for awarding participation points for in-class student contributions. Regardless of how this technique can be implemented, it is most effective when used to reward significant and relevant dialog in the chat room rather than as a reward for attendance.

Offering points for meaningful contributions in the chat room can effectively keep students focused and on topic during a live class session. It is important, however, to inform students that conversation about off-topic matters is a distraction to both the teacher and other students and if necessary can be negatively rewarded.

It is important to note that the amount of dialog that takes place in the online chat room can be high which results in additional time necessary to review and respond to comments. In addition, classes with extremely high or low enrollment may pose additional challenges for maintaining or managing appropriate dialog.

- **P1-05: Break students into small chat groups and visit each group to monitor discussion.** Breaking students into small chat rooms is a very effective for small group discussions. Periodically joining the chat rooms can be an effective way to acknowledge their input as well as let them know you are available for support and clarity.

While many instructors use this technique in addition to breaking in-class students into small groups, it is often an activity reserved for after class so that they do not lose important time for lecture or other activities.

- **P1-06: Call on each online student to answer a different part of a question.** Calling on online students to contribute to answering questions in the classroom works especially well if you have a small class. With larger numbers of online students, it can be difficult to be democratic, or equally responsive, to all students. Having a teaching assistant available to help manage student interactions can help facilitate discussion in the online chat room can make this strategy more effective.

This technique is useful to ensure the involvement of all online students and helps to ensure that each student's voice is heard. Technical problems such as connectivity

issues among the students can be a barrier to the success of this strategy. It is also important to note that effort should be made not to neglect any student, in-class or online, in the process of implementing this strategy. In addition, this strategy can be time-consuming and short class sessions may not provide enough time to allow all students to participate.

- **P1-07: Have students introduce themselves in the chat room.** At the beginning of a course, having online students introduce themselves in the chat room is a effective strategy when it is done efficiently. Since it is likely that you will not see your online students in person during your course, the introductions are useful in understanding more about the students you will be interacting with. Another key benefit of this strategy is that it can help the online students become comfortable chatting with one another and assists all in feeling they are part of same class room community in which they will be working together

It is important to note that classes with high enrollment can result in having too much information to process during class. It is also useful to integrate on-campus students in this process so that a gap is not created between these two student populations? Another barrier is having all students online at the same time which can be difficult due to enrollment processes and technical trouble during the first week of classes. The instructor will also want to monitor communications so that the introductions do not disintegrate into casual conversation. It is important to maintain efficient and focused use of student time in the chat area.

- **P1-08: Call on individual students by name and ask them to answer a question or make a comment.** Calling on individual online students by name and asking

them to answer questions or make comments is an easy and effective strategy for eliciting participation from online students. This is the affective power of HL in that it allows the instructor recognize and personalize the instruction. It allows the student to feel valued. The instructor needs to include everyone somehow during the entire session. The immediate feedback you receive from online students is helpful in determining whether or not they are following along with the class lecture or activities.

The lag-time caused by internet transmission is a barrier to this strategy resulting in a delayed response which can result in awkward pauses in the instructional activities. This barrier can also be easily overcome by asking the questions in advance and providing opportunities for input throughout the lesson.

- **P1-09: After completing assignments or exercises, have students report back to the instructor in the chat room.** Asking students to report on the outcome of assignments in the chat room is an effective strategy to provide clarification and acknowledgement to the online students. To provide this opportunity, the instructor will need to build additional time into the class session to communicate with the students. For this strategy to be effective, the instructor should use this strategy to provide meaningful feedback and allow for relevant discussion.

Like some of the other strategies, time is a critical element in implementing this strategy. Due to the nature of the chat room, collecting responses from online students will take time and may cause a delay in the delivery of the class activities or lecture. In addition, attendance is key in this strategy since students cannot respond if they are not attending the online class.

- **P1-10: Before or after the class lecture, engage in brief conversation with online students.** Providing time before or after the class session for communication among online students is helpful in increasing students participation as well as ensuring that online students understand class material. Online students have specific needs different from the in-class students, therefore providing the opportunity to chat with them acknowledges their needs. If time is an issue, occasionally dismissing the in-class audience early may be necessary to provide the opportunity to address online student's questions and concerns.

This strategy also helps to acknowledge any technical difficulties on-line students may be having and gives them a chance to answer their questions without interrupting the flow of the session. In addition, it is essential to provide equivalent opportunities, such as office hours, for in-class students so that they do not feel neglected.

- **P1-11: End the class session by thanking the online students for their participation.** Thanking students for their participation is a very helpful strategy for increasing student's participation of both online and on campus students. The positive feedback is vital because online students often feel alienated and need confirmation that their contributions are valued by the instructor and the class.

Instructors should be aware that thanking students in general can become meaningless if done on an on-going basis without specificity to the type of participation that is being appreciated.

Guidelines for Principle Two. Developing reciprocity and cooperation among students when using HorizonLive to teach in the synchronous online environment.

• **P2-01: Divide the class into small groups using breakout rooms and give them a topic to discuss or a task to complete.** Giving students topics to discuss or tasks to complete as small groups in the breakout rooms is an effective strategy for promoting active learning. In addition to small group discussions, students can focus on group projects and collaboration using the breakout rooms.

It is important to note that use of the breakout rooms needs to be carefully structured because of the time involved in accessing and using small group discussions online. This strategy can be cumbersome and too time consuming for large classes and it can be difficult to assess individual involvement in groups.

• **P2-02: Form debate teams and using breakout rooms, have the students discuss central topics before reporting back to the class.** Using the breakout rooms to support debate teams and discussion of course topics can be an effective strategy. This strategy gives them a chance to talk to one another and can often help get them to be more verbal in class.

This strategy needs to be carefully structured so that it is not cumbersome. In addition, to use this strategy, the instructor needs to be familiar with the breakout rooms.

• **P2-03: Inform online students when they are physically close to other online students.** Informing students when they are physically close to other students is an effective strategy for promoting collaboration and communication, however, this strategy must be implemented carefully. It is good practice to encourage students to discuss proximity themselves which often occurs in the chat room. The instructor should not

provide this information to any student without express permission to do so. Sharing this information can violate students' sense of safety as well as their privacy.

• **P2-04: Create an open forum during class for students to respond to each other's questions, concerns, and suggestions.** Creating open dialog during class to allow students to react and respond to each other's questions and comments is an effective strategy for engaging the students and encouraging participation. Students are often eager to share with one another and may stay focused on the issues discussed in the chat room.

Depending on the length of the class session, this strategy can distract the class from the content of the lecture or other activities. Anticipating the need for discussion and building the opportunity into the class session may alleviate any time conflict among activities. In addition, this strategy can become unwieldy for large classes without proper structure.

• **P2-05: After small group discussions in the breakout rooms, have one "spokesperson" for each group report back to the class.** Having a spokesperson for each small group report back to the class after breakout room discussions is a good strategy for cutting down on confusion that may be caused by too many responses in the chat room at one time. In addition, all students have the opportunity to talk to one another allowing the more out-going people to speak for the group. Often times it is effective to encourage the shy students to speak up in the class session which may not occur with this strategy.

• **P2-06: Create a "jigsaw" situation where each student completes a portion of the "whole picture."** In a project context, the strategy of asking each student to complete a portion of the "whole picture" is an effective way to amplify learning and motivate students. This strategy also is effective in encouraging participation and can

combine independent research and responsibility with class collaboration in regards to course. Instructors may find that this strategy can not be easily accomplished in large classes without a great deal of planning and structure.

- **P2-07: Provide opportunities for peer review of assignments and projects during the live class session.** Providing opportunities for peer review of student work often needs advance planning by both instructor and students so that they are ready to share during the class session. It is also effective to share assignments done by students from previous semesters to model high quality work. In addition, students are often more carefully critical than the instructor which can lead to good feedback about the student' work.

For some classes, this strategy may be too complicated to implement in the live setting and can take too much class time. Alternatively, students can exchange and critique each other's work through email.

- **P2-08: Ask students to address questions raised by each other.** Having students address questions raised by other students can be a very effective way of fostering cooperation among students. This strategy helps students develop ownership of their learning as well as the development of multiple perspectives on issues or course content. The use of cross-student communication can often help get students more interested in the topic and involved in the class discussion. It may be necessary for the instructor to repeat the question before asking students respond in order to make sure all students have heard and understand the question. It is also important for the instructor to elaborate and clarify the answers provided by students. The instructor should also monitor the

communication carefully so that heated discussion does not get out of hand or the discussion does not get off topic.

- **P2-09: At the beginning of the semester, ask the online students to briefly introduce themselves to the class.** An effective strategy for building communication is having all students briefly introduce themselves to the class at the beginning of the semester. This strategy is easy to do and can create a community among online and in-class students. Using other technologies (i.e. Web pages) in addition to initial introductions and providing ongoing reference that supports the brief introductions can help to foster the community and personalize the instructional setting. This strategy can also be accomplished by asking students to record a video resume or biography which can be played during class sessions. If not structured properly, this strategy can become too time-consuming for large classes and the dialog can get off topic and out of control.

- **P2-10: Encourage interaction between on-campus and online students by having students from one group respond to questions from the other.** When teaching to both live, in-class and online students simultaneously, it can be a very effective to encourage interaction between the two groups by asking students from one group to respond to comments or questions posed by the other group. For this to be effective, the instructor will need to assume the role of directing the students to each other's comments and will need to carefully listen and facilitate the discussion. This strategy can build a team environment among both audiences and provides the opportunity for students to learn from one another. It is important to note that the instructor must not allow an us vs. them mentality to develop which can cause a rift to form between the two groups.

Guidelines for Principle Three. Encouraging active learning when using HorizonLive to teach in the synchronous online environment.

- **P3-01: Use projects requiring group collaboration in the breakout rooms and interaction regarding course materials and subject matter.** Using the breakout rooms for group collaboration and interaction based on class projects and course content is an effective strategy for engaged students. This strategy can be effective at keeping students focused on the task and the content but may be problematic if students do not all attend the class at the same time. In addition, there is a risk that some students may not contribute as much as others which can be difficult to monitor.

- **P3-02: Present course material in a Q&A format and encourage students to use personal illustrations or interpretations to answer the questions.** Presenting course material in a Q&A format and encouraging students to use personal illustrations or interpretations to respond and react is an effective method for engaging students. This technique is also effective in connecting content with their own experiences and understandings. It is important to note that the type of questions asked plays a key role in the effectiveness of this strategy. It is more useful to ask higher level questions which require more thought and response than simple yes or no questions.

This can be an effective strategy for classes of any size however more structure and planning may be required for larger classes. In addition, students who do not attend the live portion of the class are not included in the activity.

- **P3-03: Present relevant data using the course content area and help students discuss the data and interpret its meaning.** Using the course content area to present relevant data and information and asking the students to interpret the information is an

easy strategy to accomplish and can effectively promote interaction in among students. This strategy allows students the opportunity to demonstrate their knowledge and seek clarification.

- **P3-04: Require attendance and participation during the live online class session.** Requiring students to attend the live class session can be effective in developing the classroom community. This strategy also allows the instructor to include all students in activities and discussions and to develop more interaction among students and the instructor.

It is important to note that latency, particular internet congestion and connectivity issues as well as time of day can all act as barriers to requiring students to attend the class session live. Online classes attract students from all parts of the world making the time of day an issue for attendance for students in other time zones as well as those with career or family conflicts. For some students, the flexibility of taking an online class session may have been the primary motivation for taking the course online.

- **P3-05: Give assignments that may only be completed during the synchronous class session and require the participation of all students.** Assigning tasks that may only be completed during the synchronous class session and requiring all students to participate encourages active participation. This technique can be useful in helping students to develop the ability to write quick, crisp, clear and concise work. For instructors who avoid taking attendance, this strategy may be effective in ensuring participation and involvement of all students as well as gauging the student's preparedness for the class session.

This strategy may be difficult and time-consuming to implement with larger classes and connectivity and latency issues can effect the success of this idea. In addition, it is important to note that student's anxieties may increase when they are attempting to complete an assigned task and they run into technical issues. Having a back-up plan in place that students move to in case of technical issues may be necessary. For some activities and subject matter, one class session may not provide enough time for complete thoughtful responses.

- **P3-06: Use interactive Web quests and Web explorations to have students research relevant topics during the class session.** Using Interactive Web quests and Web explorations to have students research relevant topics can be an effective classroom activity however, with both in-class and online audiences it can be a challenge to maintain. Online students have the ability to navigate through the Web on their own. However, without access to computers, the in-class students rely on the instructor to navigate for them. Beginning a class session with a short Web quest or exploration can be an effective way for introducing topics and focusing student's attention. This strategy also serves to introduce information from a variety of sources other than the instructor. If time is an issue, this activity may be best implemented as an out-of class assignment which can then be discussed during the next class session. The ability to integrate this strategy into the class may become easier if students in the classroom have access to computers during the session.

- **P3-07: Use case studies, vignettes or other exercises during class sessions and ask students to respond via chat.** Using case studies, vignettes or other exercises during class sessions to elicit responses from students in the chat room is a good approach

for providing context and starting off discussions. This strategy can also work well when the instructor assigns the case study or vignette ahead of time so that the live class can be reserved for more discussion and debate. Often times textbooks include case studies and vignettes for each chapter which can be integrated into the class session. Another strategy for integrating these activities into the class session is to show videos and discuss the content after viewing them. In addition, students can also be asked to present case examples to the class and start discussions among themselves. Depending on the size of the class, and due to the latency of the video, this strategy may take more time than expected.

• **P3-08: Ask students to share their conceptual understanding, opinions, beliefs, etc. of a given notion discussed during the online class session.** Asking students to share their conceptual understanding, opinions, beliefs, etc. of a given notion discussed during an online class session is an effective strategy for keeping students actively engaged in class discussion. It is useful to use the eBoard to collect student thoughts and brainstorm ideas as they are collected in the chat room. This is an essential component of any course in that students begin to develop ownership over their learning.

It may be effective to ask questions in advance to allow for additional thought and preparation. Giving the students time to respond to these questions is helpful for accommodating students with varying levels comfort with both the course content and technology. Some exercises are best done as graded assignments such as analytical essays rather than live activities. In addition, students who do not attend the live session of a course will not be able to participate in this activity.

- **P3-09: Provide students with the topic of the following week's class and provide them with questions that they will need to answer during the next lecture.** An effective way to prepare for and organize for upcoming class sessions is to end each class session by providing students with the topic for the following week and questions that they will need to be able to answer during the lecture. This strategy is also an effective way of encouraging students to keep up with reading and course content. Instructors may find that students will engage in more effective and more thoughtful discussions if they are prepared for the topic in advance.

- **P3-10: Make some material only available during the live lecture or archive, require them to view the lecture to access the material (do not make it available in WebCT or other locations).** Making some course content or other material available only during the live lecture or in archives is an effective strategy for encouraging students to watch the lectures. This strategy also ensures that student's will view the lectures in addition to reading material posted in the WebCT environment. Audio and video connectivity problems and interruption of transmission may make viewing the archives difficult, however archives are available for students to review when they encounter problems.

- **P3-11: Enable online students to use the eBoard to communicate ideas with the rest of the class.** When organized effectively, allowing online students to write on the eBoard during a class session is a powerful method for promoting interaction. This technique is useful for simple illustrations and concepts and allows students to demonstrate their knowledge and interact with students in the classroom and online. A systematic approach must be developed prior to the enabling the online students so that they

know their roles and when it is their turn to write or draw. Online students may also require some practice adjusting to writing or drawing on the eBoard.

This strategy may be difficult for large classes and it should be noted that one student at a time should be allowed to use the eBoard to avoid confusion and chaos. In addition, other students often get impatient with their peers while waiting for them to write or draw their response on the eBoard.

Guidelines for Principle Four. Strategies for giving prompt feedback when using HorizonLive to teach in the synchronous online environment.

- **P4-01: Provide feedback to student's questions and comments both verbally and in writing during the online class.** Providing feedback to student's comments both verbally and in writing is a good strategy to address different learning styles as well as model good teaching. This strategy is also useful for ensuring that students with technical issues, including loss of audio and video, can follow along with key points. Written comments can be made in both the eBoard and chat room. Typing in addition to talking can be a challenge for many instructors and may take time and attention from general class content.

- **P4-02: Have an assistant respond to the student's questions and comments in the chat room.** Relying on an assistant to respond to questions and comments in the chat room can be an efficient use of time while still ensuring that students in the online section of a class are engaged. The student assistant can respond in two areas: course content related issues and technical issues. For the student assistant to respond effectively to course content issues, they must be familiar with the course material. Having the assistant filter questions and respond to technical trouble and other issues not related to

course content helps the instructor remain focused on the lecture material. This strategy is very helpful in large classes where dialog is very active. It is important to provide guidelines for the assistant's involvement in the chat so that they can ensure that students are not distracted from course content and that truly relevant comments are always redirected to the instructor.

• **P4-03: Set aside class time for questions and answers separate from the lecture.** Setting aside a specific time for questions during a class session is an effective strategy for ensuring that students remain focused and can ask for clarification when necessary. Instructors often use this strategy to provide time for students to prepare for examinations or other assignments. This strategy allows students to seek clarity on course related issues without interrupting the lecture.

Suggest that students record their questions throughout the lecture so that they do not forget them prior to the question and answer period. In addition, careful management of the chat area may be necessary to ensure that students do not get off topic.

• **P4-04: Display written feedback to student assignments and activities in the content area or eBoard.** Displaying written feedback to student assignments and activities in the content area or eBoard is an effective strategy for giving feedback and modeling good work in the online class session. In implementing this strategy, it is important to remove student's names and other related information to reserve their privacy. Showing examples of good and bad student work can help guide student's progress on upcoming assignments and projects.

• **P4-05: Use the polling tools to collect student responses and discuss the results and their implications.** Using the polling tools to collect student responses can

provide a snapshot of class interpretation or feeling on subject the instructor may not get otherwise. This strategy is easy to use and the results are immediate. The polling tools provide excellent data collecting capability and give a real sense of involvement from the students.

- **P4-06: Begin each class session with a recap of previous lecture and answers to lingering questions and open issues.** Beginning each class session with a recap of the previous lecture and providing time to answer any lingering questions is an effective strategy for focusing the students and providing feedback. This strategy also helps bring students up to speed with course discussion and content as well as provide a bridge to upcoming topics and discussions.

- **P4-07: Verbally recognize the contribution of students in the chat area.** Verbally recognizing the contribution of students in the chat area is an effective strategy for providing feedback and increasing motivation. Providing acknowledgment and recognition to their contributions is useful in encouraging their participation and holding interest.

Guidelines for Principle Five. Emphasizing time on task when using HorizonLive to teach in the synchronous online environment.

- **P5-01. Establish guidelines for interactions in the chat room regarding etiquette and participation.** Establishing guidelines for interactions in the chat room regarding etiquette and participation is an effective strategy for keeping students focused and on task. Guidelines should be communicated to students in the first class session and should be reiterated as necessary throughout the semester.

- **P5-02. Review attendance reports to see who was online during the session and contact those who do not participate.** Instructors can track students' progress and

active engagement of online students by reviewing attendance reports at the end. If this is done early in the semester it can make a significant difference on both participation and attendance.

Due to the nature of online degree programs, many students enroll in classes in order to maintain busy schedules including work and family conflicts that can prevent them from attending live sessions. It is important to communicate attendance requirements up front so that students are aware of what is expected of them.

- **P5-03: Require written responses to activities or assignments to be completed during the online class session.** Requiring written responses to activities or assignments to be completed during the online class session is a good strategy for emphasizing time on task. Providing assignments and activities to be completed outside of class and then asking students to report on their results or progress during class is a strategy for reducing the time required during the live lecture.

- **P5-04: Send private messages to students who are not participating or contributing to the chat and encourage them to respond.** Contacting students by sending private messages is an effective way to encourage students to participate and remain focused on the task. It is also a great way to inform them that you are paying attention to their actions and redirect them if necessary.

This strategy may be disruptive for some instructors to implement in the middle of class, however, it can be reserved for the end of the class or another form of communication (i.e. e-mail) can be used. In addition, the class assistant can be asked to send messages on behalf of the instructor

- **P5-05: Focus the discussion and lecture in class by displaying slides showing the current course topic or discussion items.** Focusing the discussion and lecture in the classroom by displaying slides showing current course content or discussion topics is an effective way of keeping all students on track. The slides shown can be in the form of lecture outlines, PowerPoint slides, images, or other media. In addition to focusing the lecture, the slides are useful in communicating information visually for students which helps to address multiple learning styles as well as attracting their attention to the presentation.

- **P5-06: Display an outline for each class session that identifies the topics to be covered during the session.** Displaying an outline for each class session that identifies the topics to be covered during the session is an effective way of organizing the class and focusing the student's attention. In addition to displaying an outline at the beginning of class, the instructor can make it available to students in WebCT for review prior to class. An outline can be useful in that it helps students arrange and organize their notes in advance and can lead to better retention.

- **P5-07: Create an outline of the day's course topics on the eBoard at the beginning of the class session.** If an outline is not prepared in advance, the instructor can create on-the-fly using the eBoard. Advantages for displaying an outline are mentioned in the previous strategy. It is important to note that the eBoard can be cumbersome for many instructors to use while they lecture and the size of the screen may not be sufficient.

- **P5-08: Have materials, Web sites, and information organized and ready to use prior to the class session.** Having materials, Web sites, and information organized

and ready to use prior to the class session is essential for the delivery of a successful class session. Being prepared is a part of good teaching and emphasizing time on task. The instructor should model this behavior in order to expect it of his or her students. Much class time will be wasted if the instructor's presentation materials are not prepared in advance and ready to use.

• **P5-09: Check in with students regarding the status of their projects, assignments, papers, etc. and see if they have any questions or need any assistance.**

Checking with students regarding the status of their projects, assignments, and papers is an effective strategy for keeping them on focus and on task. This is a good strategy to do at the beginning and at the end of a class session rather than in the middle of the lecture or discussion as it models efficient use of class time. The instructor can also ask students to send questions and concerns via e-mail in advance and then address them during the class session. If done without planning or proper structure, this strategy can be time consuming and ineffective when done during a live class session.

• **P5-10: Provide students with copies of the lecture notes or outline prior to each class session.** Providing students with lecture notes in advance of the class session is an effective strategy for focusing their attention on the current course topic as well as organizing the class session. Due to connectivity issues that prevent students from continuous connectivity during a live class, the outlines can help students stay on topic and fill in gaps that they may have missed. Providing lecture notes in advance requires organization and planning since it can be difficult to change them once they have been distributed and may reduce flexibility and spontaneity. Informing students that the outline may change is important to clarify expectations.

• **P5-11: Begin the class by displaying the course objectives for the module or section that you are currently discussing and explain how the day’s lecture or discussion is relevant to the objectives.** Displaying course objectives in the content area at the beginning of each session and explaining the relevance of the upcoming lecture is an effective strategy for clarifying expectations and providing focus. This can be done in the WebCT environment as well but can be effective when reiterated during the live discussion or lecture.

• **P5-12: During the class session, ask for mini “progress reports” for upcoming papers, assignments or projects.** Asking students to provide mini progress reports for upcoming papers and assignments is a good way to monitor student progress and keep them on task. Doing this formally or informally can help keep them from falling behind. Informing students in advance that you will ask for status reports will allow them to prepare their responses and accurately report their progress.

Guidelines for Principle Six. Communicating high expectations when using HorizonLive to teach in the synchronous online environment.

• **P6-01: Refer to the course syllabus, grading scale, and requirements during the online class session to clarify expectations for projects, assignments, etc.**

Referring to the course syllabus, grading scale, and requirements during the online class session serves to clarify expectations for course assignments and projects. Periodic reminders throughout the course are useful in reinforcing expectations. This practice helps students to stay focused on what is important and vital for success.

• **P6-02: Model high expectations when teaching in the online environment through quality lecture material and feedback to students.** Modeling high expectations

while teaching in the online environment by using quality lecture materials and appropriate student feedback is necessary to establish the believability and credibility of the instructor. The instructor should set the example in the classroom as well as provide guidelines as to how the students can achieve high expectations for themselves. It may be difficult to communicate high expectations and achieve success at meeting them, because the online audience can be more evasive, feel less accountable, or perhaps a bit anonymous because there is not face to face contact.

- **P6-03: Show detailed descriptions of assignments and rubrics for grading when introducing assignments or projects to students.** Showing detailed descriptions of assignments as well as rubrics for grading when introducing assignments or projects is an effective strategy for communicating high expectations. Providing students with as much structure as possible is a useful teaching practice especially for online students who are more isolated and do not have the benefit of “chatting” about the assignments before class. Introducing these guidelines during a live class session gives students the opportunity to ask for clarity and further discuss the assignment or project.

- **P6-04: Require student attendance and participation in the live online class sessions.** Requiring student attendance and participation in the live online class session allows the instructor to maintain direct communication with all students and to touch base with each of them in a live setting. When all students are not in attendance, class sessions can be disjointed and unproductive. In addition, students complain of the difficulties due to schedule conflicts, and transmission. They should not fear losing points or credit due to connectivity issues.

• **P6-05: Show models or examples of excellent work in the content window and praise the students who created them.** Showing models or examples of excellent work in the content window and praising students who created them can be an effective strategy for communicating high expectations. This strategy must be approached carefully because praising students publicly can lead to competition rather than cooperation. This strategy can also be implemented by showing student work anonymously and explaining why the work is exemplary. In addition, you should ask the student's permission to show his or her work.

Note: Of the faculty responding to this strategy, most were responded favorably of showing excellent work, however the idea of praising students was not encouraged. Instead, faculty recommended providing encouraging remarks as opposed to praise.

• **P6-06: Provide sample tests or tests from previous semesters as examples or study guides for upcoming quizzes and tests.** Providing sample tests or tests from previous semesters as examples or study guides for upcoming quizzes and tests is an easy strategy to implement and can be useful in directing the student's studies. This can be difficult or impossible to do in courses where the content changes regularly.

• **P6-07: Reinforce expectations regarding student behavior repeatedly throughout the class session.** Reinforcing expectations regarding student behavior repeated throughout the class session is a good strategy for reminding students of high expectations. This is a strategy that may need to be implemented only as necessary to avoid excessive reminders and wasted class time.

- **P6-08: Use a bell curve in grading and ask students with high scores to share their work with the class.** The "Bell curve" is not the only formula for curving student grades but is one way to communicate high expectations. Tougher grading during the first part of the semester can often lead to improved work in later weeks. Curving scores can directly effect class participation and positive motivation in the class but must be done in a very careful and considered manner. As with other strategies, student's privacy must be upheld.

Guidelines for Principle Seven. Respecting diverse talents and ways of learning when using HorizonLive to teach in the synchronous online environment.

- **P7-01: Vary activities, lectures, Q&A, discussions and guest speakers during the class session.** Varying activities, lecture, Q&A, discussion and other activities during an online class session can come in one of two ways. First, the students have choices in the way they complete selected assignments or second, the instructor varies the types of assignment formats so that there is change and variety in what the students do throughout the semester. This variety is useful in respecting diverse talents and ways of learning and the online environment offers many possibilities for doing so. This strategy can also be useful in keeping students focused and engaged during the class session but may require more preparation and organization of the instructor.

- **P7-02: Encourage a variety of possible assignment formats such as partner projects, formal papers, presentations, or videos.** Providing a variety of possible assignment formats including partner projects, formal papers, presentations and videos is an effective strategy for respecting diverse talents and ways of learning. While the

assignments will likely be done outside of HorizonLive, instructors can present and discuss the options during the live class sessions.

- **P7-03: Vary the types of tests administered in the class (i.e. objective, subjective, take home, in class, etc.).** Varying the types of tests and assessment strategies administered in the class is an effective strategy for respecting diverse talents and ways of learning but is highly dependent on the course content. It is often effective to develop performance-based assessments that are fair and objective or use multiple assessment strategies within one exam. The variety allows students with to demonstrate their knowledge in various contexts and to excel in ones that they are most comfortable with.

- **P7-04: Solicit input from students to incorporate different perspectives in the class lectures and discussions.** Soliciting input from all students and incorporating different perspectives in the class lectures is an effective way to address different learning styles. This strategy promotes student ownership over their own learning and respect for others in the class. In addition, allowing students an outlet to express individual viewpoints helps can engage students beyond the normal level.

- **P7-05: Use visual cues such as animated movements and facial features when on camera during the class session.** Using visual cues such as animated movements and facial features when on camera during the HorizonLive session is helpful in respecting diverse talents. The variance of verbal tone, facial movements and other traits can help peak student's interest and motivate students in the online setting. Comprehension comes in many forms and sometimes it is the non verbal cues that clarify understanding, especially for second language learners. The HorizonLive video window is often too small to

show specific expressions, however many gestures including exaggerated expressions can clearly be shown.

• **P7-06: Allow students to choose to attend the live class session or view the archive.** Giving students a choice to attend the live class session or archive is a useful strategy for accommodating individual student's needs. The archives are good at capturing class activities and lectures and are available to students who cannot attend the live lecture. Some instructors prefer not to allow students to avoid attending the live class altogether but do allow students to watch a certain number of archives in place of attending live sessions without penalty.

If students consistently view archives in place of attending the live class session, they miss the opportunity to participate in live class activities as well as the interaction and exchange of ideas. More students attending the live class session often results in more interaction and exchange of ideas which is a benefit for both the instructor and other students.

• **P7-07: Display visual images of the topics and concepts you discuss during the lectures and presentations.** Displaying visual images of the topics and concepts being discussed in the live class session is effective in meeting the needs of students with various learning styles. The HorizonLive environment is an effective tool for doing this since the audio and video are easily coupled with visual imagery. Using images can help students to visually understand concepts and better process the information presented. It is effective to prepare images in advance since it can be cumbersome to draw diagrams on-the-fly in the HorizonLive environment.

- **P7-08: Reframe students' comments when necessary to facilitate others' understanding of the issues.** Reframing students' comments when necessary to facilitate others' understanding of the issues is an important strategy for respecting diverse talents and ways of learning. Another effective approach is to ask students to help clarify comments for other students. Both strategies are good Strategies for promoting discussion as well as incorporating multiple perspectives.

- **P7-09: Type key points from your lecture on the eBoard as you speak.** Typing key points from the lecture on the eBoard during the lecture is an effective strategy similar to using the blackboard in a classroom setting. This strategy also helps address the varied learning styles of students and provides multiple forms for learning the concepts. In addition, this strategy is useful in for summarizing discussions and refocusing the class's attention. It is also important to note that the typing mechanism in the eBoard can be cumbersome and time consuming to use.

CHAPTER V
SUMMARY, CONCLUSIONS,
AND RECOMMENDATIONS

Introduction

This chapter contains a comprehensive summary of the research done in effort to identify the best practices for using HorizonLive to teach in the synchronous online environment as well as recommendations based on the results and suggestions for further research.

The best practices identified in this study are based on Strategies for addressing each of Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education." The results of this study add to the limited amount of research related to effective strategies for teaching in the synchronous online environment.

Summary

Like many institutions, CSU, Chico is committed to further developing its role in the delivery of distance education. The university currently offers seven online degree programs and university administration agrees that online learning is essential to the future of the institution (Layne, 2002). The Web possesses many qualities that make it attractive for the delivery of online education including immediacy, a large user base, and ease of access. More and more companies, including HorizonLive which was adopted by CSU, Chico to deliver online courses in the distance education program, are now

providing technology solutions for delivering Web based courses (Evans, 2001).

HorizonLive couples live video streamed lectures and presentations with content and chat interactions. As faculty and staff at the university have used HorizonLive to deliver instruction, they have found that the experience is very different than teaching in the traditional classroom.

Due to the relative newness of Web based instruction, literature based on the best practices for teaching in the online environment remains minimal. As universities continue to transition to Web based instruction, it is likely that we will see a rise in information available pertaining to effective online teaching strategies. With the lack of substantial resources in best practices, the Delphi technique was very appropriate in identifying effective teaching strategies from the group of CSU, Chico online instructors. The technique allowed the group to collectively brainstorm and evaluate strategies based on their use of HorizonLive to teach online classes.

Through the Delphi technique implemented in this study, data was gathered by means of three anonymous Web-based questionnaires. The anonymous Web-based questionnaires were chosen because responses were simple and convenient making it possible to achieve a good response from a relatively small sample. The following research questions were posed to focus direction in this investigation.

RQ1: After teaching in the synchronous online environment for one or more semesters, will CSU, Chico instructors be able to identify strategies for translating each of Chickering and Gamson's seven principles for good practice in undergraduate education in their online environment?

RQ2: Given the set of strategies identified by the instructors for translating each of Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education" in the synchronous online environment, will the instructors rank strategies identified for any one particular principle higher than others?

Conclusions

The results of this study indicate that the selected group of faculty members at CSU, Chico who have taught an online course for one semester or more using HorizonLive could identify instructional strategies for meeting each of Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education." Based on the survey data collected, the participants were able to identify 68 strategies to address Chickering and Gamson's seven principles. The strategies identified represent one snapshot relating to the use of HorizonLive on the CSU, Chico campus and its model for distance education courses. Participants in this study perceive these strategies to be effective when teaching in this environment. Among the strategies identified, eight received an average rating of 6.0 or higher out of a possible 7 when ranked according to effectiveness. Three of the eight highest scoring strategies related to principle six, communicating high expectations, when using HorizonLive to teach in the synchronous online environment.

In addition to identifying the strategies for addressing the seven principles, participants were able to provide guidelines which include potential strengths and weaknesses for each idea given various teaching approaches and situations. While the strategies presented are valuable in determining approaches for teaching in the synchronous

online environment, many factors will influence the effectiveness of any of the strategies listed. For this reason, the guidelines resulting from this study provide important considerations for implementing the strategies in the online environment.

Recommendations

As more and more faculty face the challenge of teaching an online course, it is essential for these ideas to be further explored and disseminated in order to encourage future successful online teaching. The following recommendations for further evaluation and dissemination are offered based on the findings of this study.

1. Target and increase pedagogical training for faculty on the effective use of HorizonLive to teach in the synchronous online environment. The strategies identified as a result of this study should be incorporated into current and future training for new and returning HorizonLive instructors. In this training, model examples of the strategies as well as the provision of ample time for practice in implementing the strategies can aid in the selection and effective implementation by the faculty when they teach their online course.

2. Develop a Web-based resource for online teachers related to the best practices for teaching in the synchronous online environment. The resource should provide guidelines and suggestions for effective online teaching based on this study as well as the opportunity for submission of additional best practices. In addition, the resource should contain models of effective implementation of the strategies identified in this study as well as discussion of their strengths and weaknesses.

3. Develop a faculty mentoring program wherein new online instructors are paired with experienced faculty. Faculty preparing to teach in the synchronous online environment for the first time will benefit from the experience of those who have taught one or more semesters using HorizonLive. The experienced faculty can identify potential barriers to success, effective strategies and guidelines.

4. Develop a focus group for online instructors. Faculty members teaching online courses and those preparing to teach in the online environment for the first time should have the opportunity to gather and discuss issues related to successful online teaching strategies. Despite how often a faculty member has taught in the online environment, it is likely that there are strategies that he or she is unaware of. This group could be successful in revealing and disseminating those ideas.

Suggestions for Further Research

Faculty participants in this study have identified strategies for addressing Chickering and Gamson's seven principles based on their experiences teaching with HorizonLive. In order to validate the strategies suggested, conduct an implementation study where the strategies are utilized by instructors teaching in the synchronous online environment using HorizonLive. In addition to further probing faculty for their reaction to the techniques, qualitative data should be collected from the students taking the online course to determine if the strategies are enhancing their learning experience. Data from both the faculty teaching with HorizonLive and the students participating in the course will further identify the effective teaching strategies for that environment.

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APPENDIX A

GRADUATE RESEARCH CONDUCTED BY JON KNOLLE
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**"IDENTIFYING THE BEST PRACTICES FOR USING HORIZONLIVE
TO TEACH IN THE SYNCHRONOUS ONLINE ENVIRONMENT"**

INFORMED CONSENT STATEMENT

You are invited to participate in a research study, entitled ***IDENTIFYING THE BEST PRACTICES FOR USING HORIZONLIVE TO TEACH IN THE SYNCHRONOUS ONLINE ENVIRONMENT***. The purpose of the study is to identify the techniques used by instructors to translate Chickering and Gamson's "Seven principles for best practice in undergraduate education" in the synchronous online environment using HorizonLive.

This study is conducted through a Delphi decision making process in which you will receive a series of questionnaires (over the next four weeks) which serve to collect and evaluate responses from participants. Each questionnaire will not take more than 15 minutes to complete. Your participation in this study is voluntary. You may decline to participate. If you decide to participate, you may withdraw from the study at any time.

Confidentiality

The purpose of this study is to gather information about teaching techniques that you have implemented in the synchronous online classroom. Your name and other information about you will not be collected in this survey; therefore your response to the survey will be confidential and anonymous.

Contact

If you have questions at any time about the study or the procedures, you may contact the researcher, **Jon Knolle, at MLIB 019, or 530-898-6780** (jknolle@csuchico.edu).

[PROCEED TO THE FIRST QUESTIONNAIRE](#)

Note: You will only be asked to complete one questionnaire at any given time, additional questionnaires will be distributed in the upcoming weeks.

QUESTIONNAIRE #1

Please indicate the **number of semesters** you have taught an online course using HorizonLive 1 2 3 4 5

Please enter your **e-mail address**: *Your e-mail will be used for survey tracking only, **your responses to this questionnaire will be kept strictly confidential and results will be anonymous.***

THE PURPOSE OF THIS QUESTIONNAIRE IS TO ELICIT YOUR IDEAS REGARDING THE FOLLOWING ISSUE:

How can the "Seven Principles for Good Practice in Undergraduate Education" be translated to the synchronous online environment using HorizonLive?

INSTRUCTIONS: Please engage in individual brainstorming so as to generate as many ideas as possible for addressing each of the seven principles when teaching with HorizonLive. List each idea in a brief, concise manner in the space below. Your ideas need not be fully developed. In fact, it is preferable to have each idea expressed in one brief sentence or phrase. No attempt should be made to evaluate or justify these ideas at this point in time. Your ideas will be anonymously included in the next questionnaire.

NOTE: This survey is limited to interactions in HorizonLive (including live class sessions and archives) but does **not** include any interactions in WebCT.

List techniques for **ENCOURAGING CONTACT BETWEEN STUDENTS AND FACULTY** when using HorizonLive to teach a synchronous online course:

1.
2.
3 ...

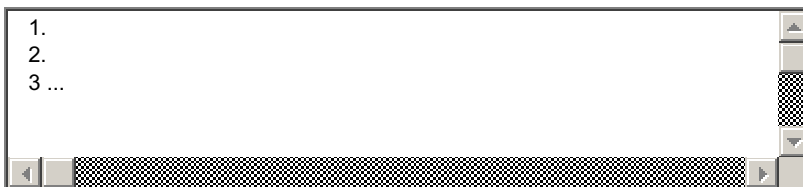
List techniques for **DEVELOPING RECIPROCITY AND COOPERATION AMONG STUDENTS** when using HorizonLive to teach a synchronous online course:

1.
2.
3 ...

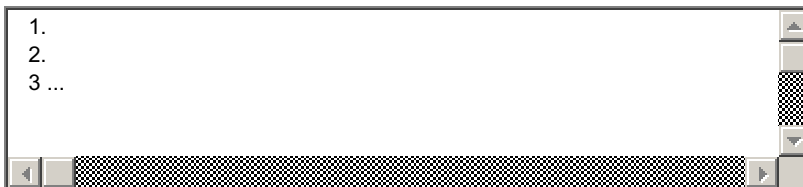
List techniques for **ENCOURAGING ACTIVE LEARNING** when using HorizonLive to teach a synchronous online course:



List techniques for **GIVING PROMPT FEEDBACK** when using HorizonLive to teach a synchronous online course:



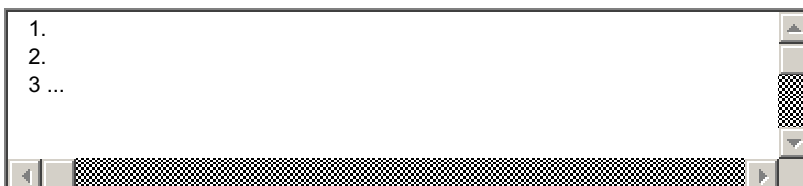
List techniques for **EMPHASIZING TIME ON TASK** when using HorizonLive to teach a synchronous online course:



List techniques for **COMMUNICATING HIGH EXPECTATIONS** when using HorizonLive to teach a synchronous online course:



List techniques for **RESPECTING DIVERSE TALENTS AND WAYS OF LEARNING** when using HorizonLive to teach a synchronous online course:



APPENDIX B

**GRADUATE RESEARCH CONDUCTED BY JON KNOLLE
INSTRUCTIONAL TECHNOLOGY DEPARTMENT, CSU, CHICO**

**"IDENTIFYING THE BEST PRACTICES FOR USING HORIZONLIVE
TO TEACH IN THE SYNCHRONOUS ONLINE ENVIRONMENT"**

**INFORMED CONSENT STATEMENT
QUESTIONNAIRE #2**

Thank you for taking the time to participate in my research study, entitled ***IDENTIFYING THE BEST PRACTICES FOR USING HORIZONLIVE TO TEACH IN THE SYNCHRONOUS ONLINE ENVIRONMENT***. The purpose of the study is to identify the techniques used by instructors to translate Chickering and Gamson's "Seven principles for best practice in undergraduate education" in the synchronous online environment using HorizonLive.

This study is conducted through a Delphi decision making process in which you will receive a series of questionnaires (over the next four weeks) which serve to collect and evaluate responses from participants. Each questionnaire will not take more than 15 minutes to complete. Your participation in this study is voluntary. You may decline to participate. If you decide to participate, you may withdraw from the study at any time.

Confidentiality

The purpose of this study is to gather information about teaching techniques that you have implemented in the synchronous online classroom. Your name and other information about you will not be collected in this survey; therefore your response to the survey will be confidential and anonymous.

Contact

If you have questions at any time about the study or the procedures, you may contact the researcher, **Jon Knolle, at MLIB 019, or 530-898-6780** (jknolle@csuchico.edu).

[PROCEED TO THE SECOND QUESTIONNAIRE](#)

Note: You will only be asked to complete one questionnaire at any given time, additional questionnaires will be distributed in the upcoming weeks.

QUESTIONNAIRE #2

Please enter your **e-mail address**: *Your e-mail will be used for survey tracking only, **your responses to this questionnaire will be kept strictly confidential and results will be anonymous.***

THIS IS THE SECOND QUESTIONNAIRE IN A STUDY DESIGNED TO ELICIT YOUR IDEAS REGARDING THE FOLLOWING ISSUE:

How can the "Seven Principles for Good Practice in Undergraduate Education" be translated to the synchronous online environment using HorizonLive?

INSTRUCTIONS: Below, you will find the ideas suggested by faculty in the first questionnaire administered in this study. The number of ideas included for each of the seven principles ranges from seven to eleven. For this questionnaire, please review the ideas listed for each of the seven principles. Space is provided under each idea for you to offer any clarification or explanation of any of the ideas. In addition, you are encouraged to identify any strengths or weaknesses for the ideas listed. You need not respond to every idea, however your input in any area is appreciated. In addition, after reviewing the ideas listed, you will have space to brainstorm additional ideas that come to mind.

NOTE: As before, this survey is limited to interactions in HorizonLive (including live class sessions and archives) but does **not** include any interactions in WebCT.

PRINCIPLE ONE: Techniques for ENCOURAGING CONTACT BETWEEN STUDENTS AND FACULTY when using HorizonLive to teach a synchronous online course:

1. Respond to student questions verbally as well as in writing

Clarification:	▲
Strengths:	▲
Weaknesses:	▼
◀ ▶	

2. Ask questions during the lecture and have students respond in the chat room

Clarification:	▲
Strengths:	▲
Weaknesses:	▼
◀ ▶	

3. Acknowledge students comments throughout the class session

7. Have students introduce themselves in the chat room

Clarification:	▲
Strengths:	▲
Weaknesses:	▼
◀ ▶	

8. Call on individual students by name and ask them to answer a question or make a comment

Clarification:	▲
Strengths:	▲
Weaknesses:	▼
◀ ▶	

9. After completing assignments or exercises, have students report back to the instructor in the chat

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

4. Offer points for meaningful chat room contributions

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

5. Break students into small chat groups and visit each group to monitor discussion

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

Call on each online student to answer a different part of a question

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

Identify any additional ideas for **ENCOURAGING CONTACT BETWEEN STUDENTS AND FACULTY** in the space below:

1.	▲
2.	■
3...	▼
▲	
▼	

PRINCIPLE TWO: Techniques for DEVELOPING RECIPROCITY AND COOPERATION AMONG STUDENTS when using HorizonLive to teach a synchronous online course:

1. Divide the class into small groups using Breakout Rooms and give them a topic to discuss or task to complete

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

2. Form debate teams and using Breakout Rooms, have the students discuss central topics

room

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

10. Before or after the class lecture, engage in brief conversation with online students

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

11. End the class session by thanking the online students for their participation

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

11. End the class session by thanking the online students for their participation

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

11. End the class session by thanking the online students for their participation

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

11. End the class session by thanking the online students for their participation

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

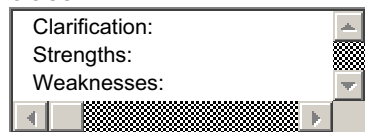
7. Provide opportunities for peer review of assignments and projects during the live class session.

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

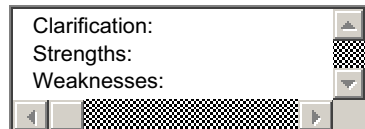
8. Ask students to address questions raised by each other

Clarification:	▲
Strengths:	■
Weaknesses:	▼
▲	
▼	

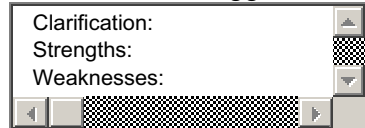
before reporting back to the class



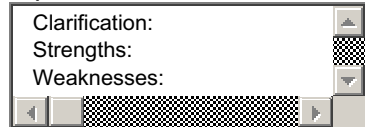
3. Inform online students when they are physically close to other online students



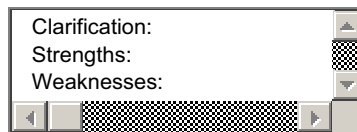
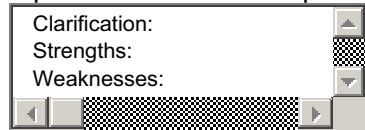
4. Create an open forum during class for students to respond to each other's questions, concerns, and suggestions



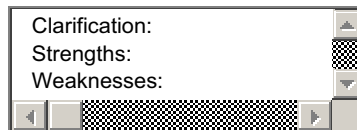
5. After small group discussions in the Breakout Rooms, have one "spokesperson" for each group report back to the class



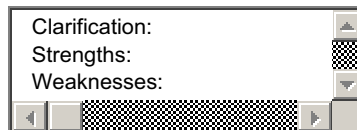
6. Create a "jigsaw" situation where each student completes a portion of the "whole picture"



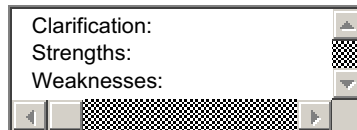
9. At the beginning of the semester, ask the online students to briefly introduce themselves to the class.



10. Encourage interaction between on-campus and online students by having students from one group respond to questions and comments from the other.



11. Enable online students to use the eBoard to communicate ideas with the rest of the class



Identify any additional ideas for **DEVELOPING RECIPROCITY AND COOPERATION AMONG STUDENTS** in the space below:

PRINCIPLE THREE: Techniques for ENCOURAGING ACTIVE LEARNING when using HorizonLive to teach a synchronous online course:

1. Use projects requiring group collaboration in the Breakout Rooms and interaction regarding course materials and subject matter.

Clarification:
Strengths:
Weaknesses:

2. Present course material in a Q&A format and encourage students to use personal illustrations or interpretations to answer the questions

Clarification:
Strengths:
Weaknesses:

3. Present relevant data using the course content area and help students discuss the data and interpret its meaning

Clarification:
Strengths:
Weaknesses:

4. Require attendance and participation during the live online class session

Clarification:
Strengths:
Weaknesses:

5. Give assignments that may only be completed during the synchronous class session and require the participation of all students

Clarification:
Strengths:
Weaknesses:

6. Use interactive Web quests and Web explorations to have students research relevant topics during the class session

Clarification:
Strengths:
Weaknesses:

7. Use case studies, vignettes or other exercises during class sessions and ask students to respond via chat

Clarification:
Strengths:
Weaknesses:

8. Ask students to share their conceptual understanding, opinions, beliefs, etc. of a given notion discussed during the online class session.

Clarification:
Strengths:
Weaknesses:

9. Provide students with the topic of the following week's class and provide them with questions that they will need to answer during the next lecture.

Clarification:
Strengths:
Weaknesses:

10. Make some material only available during the live lecture or archive, require them to view the lecture to access the material (do not make it available in WebCT or other location).

Clarification:
Strengths:
Weaknesses:

Identify any additional ideas for **ENCOURAGING ACTIVE LEARNING** in the space below:

PRINCIPLE FOUR: Techniques for GIVING PROMPT FEEDBACK when using HorizonLive to teach a synchronous online course:

1. Provide feedback to student's questions and comments both verbally and in writing during the online class

2. Have an assistant respond to the student's questions and comments in the chat room

3. Set aside class time for questions and answers separate from the lecture

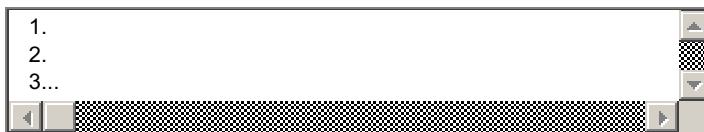
4. Display written feedback to student assignments and activities in the content area or eBoard

5. Use the polling tools to collect student responses and discuss the results and their implications

6. Begin each class session with a recap of previous lecture and answers to lingering questions and open issues

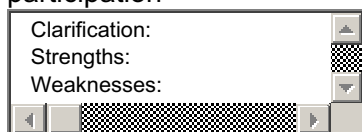
7. Verbally recognize the contribution of students in the chat area

Identify any additional ideas for **DEVELOPING RECIPROCITY AND COOPERATION AMONG STUDENTS** in the space below:

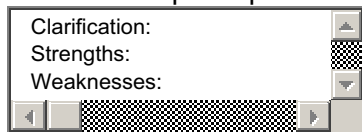


PRINCIPLE FIVE: Techniques for EMPHASIZING TIME ON TASK when using HorizonLive to teach a synchronous online course:

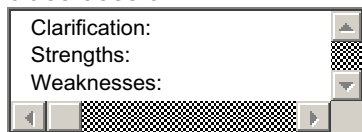
1. Establish guidelines for interactions in the chat room regarding etiquette and participation



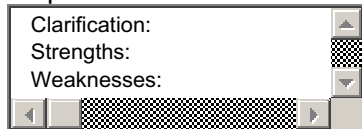
2. Review attendance reports to see who was online during the session and contact those who chose not to participate



3. Require written responses to activities or assignments to be completed during the online class session

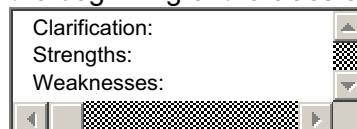


4. Send private messages to students who are not participating or contributing to the chat and encourage them to respond

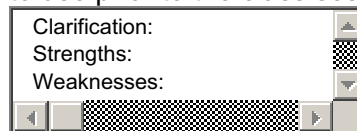


5. Focus the discussion and lecture in class by displaying slides showing the current course topic or discussion items

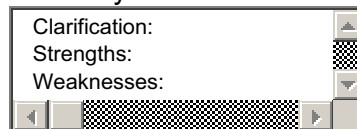
7. Create an outline of the day's course topics on the eBoard at the beginning of the class session



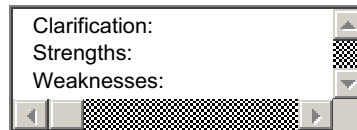
8. Have materials, Web sites, and information organized and ready to use prior to the class session



9. Check in with students regarding the status of their projects, assignments, papers, etc. and see if they have any questions or need any assistance.



10. Provide students with copies of the lecture notes or outline prior to each class session



11. Begin the class by displaying the course objectives for the module or section that you are currently discussing and explain how the day's lecture or discussion is relevant to the objectives



Clarification:
Strengths:
Weaknesses:

6. Display an outline for each class session that identifies the topics to be covered during the session

Clarification:
Strengths:
Weaknesses:

Clarification:
Strengths:
Weaknesses:

12. During the class session, ask for mini "progress reports" for upcoming papers, assignments or projects

Clarification:
Strengths:
Weaknesses:

Identify any additional ideas for **EMPHASIZING TIME ON TASK** in the space below:

1.
2.
3...

PRINCIPLE SIX: Techniques for COMMUNICATING HIGH EXPECTATIONS when using HorizonLive to teach a synchronous online course:

1. Refer to the course syllabus, grading scale, and requirements during the online class session to clarify expectations for projects, assignments, etc.

Clarification:
Strengths:
Weaknesses:

2. Model high expectations when teaching in the online environment through quality lecture material and feedback to students

Clarification:
Strengths:
Weaknesses:

3. Show detailed descriptions of assignments and rubrics for grading when introducing assignments or projects to students

5. Show models or examples of excellent work in the content window and praise the students who created them

Clarification:
Strengths:
Weaknesses:

6. Provide sample tests or tests from previous semesters as examples or study guides for upcoming quizzes and tests

Clarification:
Strengths:
Weaknesses:

7. Reinforce expectations regarding student behavior repeatedly throughout the class session

Clarification:
Strengths:
Weaknesses:

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

4. Require student attendance and participation in the live online class sessions

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

8. Use a bell curve in grading and ask students with high scores to share their work with the class

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

Identify any additional ideas for **COMMUNICATING HIGH EXPECTATIONS** in the space below:

1.	▲
2.	■
3...	▼
◀ ▶	

PRINCIPLE SEVEN: Techniques for RESPECTING DIVERSE TALENTS AND WAYS OF LEARNING when using HorizonLive to teach a synchronous online course:

1. Vary activities, lecture, Q&A, discussions and guest speakers during the class session

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

2. Encourage a variety of possible assignment formats such as partner projects, formal papers, presentations, or videos

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

3. Vary the types of tests administered in the class (i.e. objective, subjective, take home, in class, etc.)

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

6. Allow students to choose to attend the live class session or view the archive

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

7. Display visual images of the topics and concepts you discuss during the lectures and presentations

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

8. Reframe students' comments when necessary to facilitate others' understanding of the issues

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀ ▶	

4. Solicit input from students to incorporate different perspectives in the class lectures and discussions

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀	▶

9. Type key points from your lecture on the eBoard as you speak

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀	▶

5. Use visual cues such as animated movements and facial features when on camera during the class session

Clarification:	▲
Strengths:	■
Weaknesses:	▼
◀	▶

Identify any additional ideas for **RESPECTING DIVERSE TALENTS AND WAYS OF LEARNING** in the space below:

1.	▲
2.	■
3...	▼
◀	▶

Submit Questionnaire

Reset Questionnaire

APPENDIX B

**GRADUATE RESEARCH CONDUCTED BY JON KNOLLE
INSTRUCTIONAL TECHNOLOGY DEPARTMENT, CSU, CHICO**

**INFORMED CONSENT STATEMENT
QUESTIONNAIRE #3**

Thank you for taking the time to participate in my research study, entitled **IDENTIFYING THE BEST PRACTICES FOR USING HORIZONLIVE TO TEACH IN THE SYNCHRONOUS ONLINE ENVIRONMENT**. The purpose of the study is to identify the techniques used by instructors to translate Chickering and Gamson's "Seven principles for best practice in undergraduate education" in the synchronous online environment using HorizonLive.

Your participation in this study is voluntary. You may decline to participate. If you decide to participate, you may withdraw from the study at any time.

Confidentiality

The purpose of this study is to gather information about teaching techniques that you have implemented in the synchronous online classroom. Your name and other information about you will not be collected in this survey; therefore your response to the survey will be confidential and anonymous.

Contact

If you have questions at any time about the study or the procedures, you may contact the researcher, Jon Knolle, at MLIB 019, or 530-898-6780 (jknolle@csuchico.edu).

QUESTIONNAIRE #3

The purpose of this questionnaire is to provide you with the opportunity to assess the responses collected throughout this study dealing with the issue:

How can the "Seven Principles for Good Practice in Undergraduate Education" be translated to the synchronous online environment using HorizonLive?

Please assess the merits of all ideas listed below using a scale that ranges from 1 (very low effectiveness for addressing the given principle) through 7 (very high effectiveness for addressing the principle). After questionnaires have been completed, results will be compiled and shared with all participants. As with all parts of this study, your ideas are anonymous and appreciated.

PRINCIPLE ONE:

IDEAS FOR ENCOURAGING CONTACT BETWEEN STUDENTS AND FACULTY	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Respond to student questions verbally as well as in writing	1	2	3	4	5	6	7
Ask questions during the lecture and have students respond in the chat room	1	2	3	4	5	6	7
Acknowledge students comments throughout the class session	1	2	3	4	5	6	7
Offer points for meaningful chat room contributions	1	2	3	4	5	6	7
Break students into small chat groups and visit each group to monitor discussion	1	2	3	4	5	6	7
Call on each online student to answer a different part of a question	1	2	3	4	5	6	7
Have students introduce themselves in the chat room	1	2	3	4	5	6	7
Call on individual students by name and ask them to answer a question or make a comment	1	2	3	4	5	6	7
After completing assignments or exercises, have students report back to the instructor in the chat room	1	2	3	4	5	6	7
Before or after the class lecture, engage in brief conversation with online students	1	2	3	4	5	6	7

PRINCIPLE TWO:

IDEAS FOR DEVELOPING RECIPROCITY AND COOPERATION AMONG STUDENTS	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Divide the class into small groups using Breakout Rooms and give them a topic to discuss or task to complete	1	2	3	4	5	6	7
Form debate teams and using Breakout Rooms, have the students discuss central topics before reporting back to the class	1	2	3	4	5	6	7
Inform online students when they are physically close to other online students	1	2	3	4	5	6	7
Create an open forum during class for students to respond to each other's questions, concerns, and suggestions	1	2	3	4	5	6	7
After small group discussions in the Breakout Rooms, have one "spokesperson" for each group report back to the class.	1	2	3	4	5	6	7
Provide opportunities for peer review of assignments and projects during the live class session.	1	2	3	4	5	6	7
Ask students to address questions raised by each other	1	2	3	4	5	6	7
At the beginning of the semester, ask the online students to briefly introduce themselves to the class.	1	2	3	4	5	6	7
Encourage interaction between on-campus and online students by having students from one group respond to questions and comments from the other.	1	2	3	4	5	6	7
Enable online students to use the eBoard to communicate ideas with the rest of the class.	1	2	3	4	5	6	7

PRINCIPLE THREE:

IDEAS FOR ENCOURAGING ACTIVE LEARNING	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Use projects requiring group collaboration in the Breakout Rooms and interaction regarding course materials and subject matter.	1	2	3	4	5	6	7
Present course material in a Q&A format and encourage students to use personal illustrations or interpretations to answer the questions	1	2	3	4	5	6	7
Present relevant data using the course content area and help students discuss the data and interpret its meaning	1	2	3	4	5	6	7
Require attendance and participation during the live online class session	1	2	3	4	5	6	7
Give assignments that may only be completed during the synchronous class session and require the participation of all students	1	2	3	4	5	6	7
Use interactive Web quests and Web explorations to have students research relevant topics during the class session	1	2	3	4	5	6	7
Use case studies, vignettes or other exercises during class sessions and ask students to respond via chat	1	2	3	4	5	6	7
Ask students to share their conceptual understanding, opinions, beliefs, etc. of a given notion discussed during the online class session.	1	2	3	4	5	6	7
Provide students with the topic of the following week's class and provide them with questions that they will need to answer during the next lecture.	1	2	3	4	5	6	7
Make some material only available during the live lecture or archive, require them to view the lecture to access the material (do not make it available in WebCT or other location).	1	2	3	4	5	6	7
Enable students to use eBoard to present information and demonstrate ideas	1	2	3	4	5	6	7

PRINCIPLE FOUR:

IDEAS FOR GIVING PROMPT FEEDBACK	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Provide feedback to student's questions and comments both verbally and in writing during the online class	1	2	3	4	5	6	7
Have an assistant respond to the student's questions and comments in the chat room	1	2	3	4	5	6	7
Set aside class time for questions and answers separate from the lecture	1	2	3	4	5	6	7
Display written feedback to student assignments and activities in the content area or eBoard	1	2	3	4	5	6	7
Use the polling tools to collect student responses and discuss the results and their implications	1	2	3	4	5	6	7
Begin each class session with a recap of previous lecture and answers to lingering questions and open issues	1	2	3	4	5	6	7
Verbally recognize the contribution of students in the chat area	1	2	3	4	5	6	7

PRINCIPLE FIVE:

IDEAS FOR COMMUNICATING HIGH EXPECTATIONS	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Refer to the course syllabus, grading scale, and requirements during the online class session to clarify expectations for projects, assignments, etc.	1	2	3	4	5	6	7
Model high expectations when teaching in the online environment through quality lecture material and feedback to students	1	2	3	4	5	6	7
Show detailed descriptions of assignments and rubrics for grading when introducing assignments or projects to students	1	2	3	4	5	6	7
Require student attendance and participation in the live online class sessions	1	2	3	4	5	6	7
Show models or examples of excellent work in the content window and praise the students who created them	1	2	3	4	5	6	7
Provide sample tests or tests from previous semesters as examples or study guides for upcoming quizzes and tests	1	2	3	4	5	6	7
Reinforce expectations regarding student behavior repeatedly throughout the class session	1	2	3	4	5	6	7
Use a bell curve in grading and ask students with high scores to share their work with the class	1	2	3	4	5	6	7

PRINCIPLE SIX:

IDEAS FOR EMPHASIZING TIME ON TASK	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Establish guidelines for interactions in the chat room regarding etiquette and participation	1	2	3	4	5	6	7
Review attendance reports to see who was online during the session and contact those who chose not to participate	1	2	3	4	5	6	7
Require written responses to activities or assignments to be completed during the online class session	1	2	3	4	5	6	7
Send private messages to students who are not participating or contributing to the chat and encourage them to respond	1	2	3	4	5	6	7
Focus the discussion and lecture in class by displaying slides showing the current course topic or discussion items	1	2	3	4	5	6	7
Display an outline for each class session that identifies the topics to be covered during the session	1	2	3	4	5	6	7
Create an outline of the day's course topics on the eBoard at the beginning of the class session	1	2	3	4	5	6	7
Have materials, Web sites, and information organized and ready to use prior to the class session	1	2	3	4	5	6	7
Check in with students regarding the status of their projects, assignments, papers, etc. and see if they have any questions or need any assistance.	1	2	3	4	5	6	7
Provide students with copies of the lecture notes or outline prior to each class session	1	2	3	4	5	6	7
Begin the class by displaying the course objectives for the module or section that you are currently discussing and explain how the day's lecture or discussion is relevant to the objectives	1	2	3	4	5	6	7
During the class session, ask for mini "progress reports" for upcoming papers, assignments or projects	1	2	3	4	5	6	7

PRINCIPLE SEVEN:

IDEAS FOR RESPECTING DIVERSE TALENTS AND WAYS OF LEARNING	RATE THE IDEA'S EFFECTIVENESS VERY LOW —————> VERY HIGH						
Vary activities, lecture, Q&A, discussions and guest speakers during the class session	1	2	3	4	5	6	7
Encourage a variety of possible assignment formats such as partner projects, formal papers, presentations, or videos	1	2	3	4	5	6	7
Vary the types of tests administered in the class (i.e. objective, subjective, take home, in class, etc.)	1	2	3	4	5	6	7
Solicit input from students to incorporate different perspectives in the class lectures and discussions	1	2	3	4	5	6	7
Use visual cues such as animated movements and facial features when on camera during the class session	1	2	3	4	5	6	7
Allow students to choose to attend the live class session or view the archive	1	2	3	4	5	6	7
Display visual images of the topics and concepts you discuss during the lectures and presentations	1	2	3	4	5	6	7
Reframe students' comments when necessary to facilitate others' understanding of the issues	1	2	3	4	5	6	7
Type key points from your lecture on the eBoard as you speak	1	2	3	4	5	6	7

TEACHING STYLES: From the list of teaching styles below, select the **one** that you think **best** describes your own teaching style: **SOURCE:** ["Grasha's 5 Teaching Styles"](#)

<p>EXPERT: Possesses knowledge and expertise that students need. Strives to maintain status as an expert among students by displaying detailed knowledge and by challenging students to enhance their competence. Concerned with transmitting information and insuring that students are well prepared.</p>
<p>FORMAL AUTHORITY: Possesses status among students because of knowledge and role as a faculty member. Concerned with providing positive and negative feedback, establishing learning goals, expectations, and rules of conduct for students. Concerned with the correct, acceptable, and standard ways to do things and with providing students with the structure they need to learn.</p>
<p>PERSONAL MODEL: Believes in "teaching by personal example" and establishes a prototype for how to think and behave. Oversees, guides, and directs by showing how to do things, and encouraging students to observe and then to emulate the instructor's approach.</p>
<p>FACILITATOR: Emphasizes the personal nature of teacher-student interactions. Guides and directs students by asking questions, exploring options, suggesting alternatives, and encouraging them to develop criteria to make informed choices. Overall goal is to develop in students the capacity for independent action, initiative, and responsibility. Works with students on projects in a consultative fashion and tries to provide as much support and encouragement as possible</p>
<p>DELEGATOR: Concerned with developing students' capacity to function in an autonomous fashion. Students work independently on projects or as part of autonomous teams. The teacher is available at the request of students as a resource person.</p>

Please enter your **e-mail address:**

Your e-mail is used for survey tracking only, ***your responses to this questionnaire will be kept strictly confidential and results will be anonymous.***