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ABSTRACT

Wyoming, a rural state with a small population scattered over vast geographic areas, brought a compressed digital video network online to connect the University of Wyoming and the State's seven community colleges. The College of Education at the University received a grant to develop a coaching/mentoring model for teacher interns over distance. The model is being taught to 16 practicing professionals (student teacher supervisors and cooperating teachers) across the state and incorporates the concept of immediate feedback for teacher interns as opposed to using post-hoc strategies for providing feedback. A study was designed to collect data from each of six volunteer teacher interns and their coaching teams using interactive technology; simultaneously, post hoc feedback was provided to six teacher interns. At the end of the pilot each of the 12 teacher interns was evaluated by a panel of professionals; the evaluation instruments consisted of a set of 10 questions and a 10-minute videotape submitted by the interns of their last week of teaching. The question of whether the communications technologies for feedback were as effective as face-to-face, post hoc feedback was addressed and results were applied to a revision of the coaching and mentoring course. A complete description and syllabus of the Field Studies in Coaching/Mentoring via Compressed Video course is appended. (Contains 6 references.) (LL)

Association for Educational Communications
and
Technology

Using Compressed Video to Coach/Mentor Distant Teacher Interns

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Introduction

In recent years, teacher educators have become increasingly concerned about the emphasis being placed on field experiences for preservice and student teachers or teacher interns. One focus of this concern is the supervision, or mentoring and coaching of teacher interns. Traditional strategies for providing constructive feedback lack an effective method for intervention and reinforcement during the teaching process. Typically, feedback is provided in a post hoc manner long after the teaching session is completed. A few studies (Korner and Brown, 1952; Sanders, 1966; Nyquist and Stanton-Spicer,1979; Johnson and Brown, 1969; Gordon and Kogan, 1975; Krapfl, et al, 1969;)have examined the use of audio-prompting* as a non traditional approach for teaching parenting behaviors, mental health counselors, graduate teaching assistants and others. All of these studies indicate that, in the context of supervision, the ability to provide simultaneous reinforcement and feedback to the trainee was far superior to the provision of post hoc feedback.

The literature which is available on the use of this technique in the coaching and mentoring of teacher interns is very limited. In 1991, Carmen Giebelhaus and Jose Cruz conducted a study, at the Ohio State University, using the audio-prompting technique with student

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*Giebelhaus and Cruz, 1991, define audio-prompting as "a process whereby concise verbal assistance via a small transistorized ear phone is employed to induce specific behavioral changes."

teachers. In the Giebelhaus and Cruz study, the supervising teacher or

professor sat in the back of the room and used an ear plug and microphone device to transmit feedback to the student teacher who wore an ear plug but had no way of communicating back to the supervising instructor. The results of their study were very positive. The researchers found that prompts fell into three categories: 1) content information, 2) Instructional strategies, and 3) classroom management. The College of Education at the University of Wyoming became interested in whether or not immediate feedback using technology over distance via a live, two-way interactive video system combined with the audio-prompting could be at least as effective (or more effective) than face-to-face post-hock feedback.

In a pilot study begun at the University of Wyoming during the late fall of 1991, results confirmed the Giebelhaus and Cruz findings. This paper reports the new design for a continuing study during the Fall of 1992 and the Spring of 1993. The Wyoming study adds a further dimension to the application of technology being made at the Ohio University. Unlike the students at Ohio State University, Wyoming teacher interns are able to communicate back to the supervising instructor. Additionally, the program links a campus instructor with a student teacher in the field via a two-way interactive video system. Use of this technology allows more frequent coaching and mentoring sessions. While we had hoped to have this extended technology facilitated model in place by September of 1992, the team that developed a coaching and mentoring class did not get started as rapidly as anticipated so the study did not get underway in the originally projected timeframe.

Preliminary results from the pilot study indicate that teacher interns who are coached with immediate audio feedback, as compared to traditional post hoc methods, are more likely to be:

1) more adept at teacher decision making
2) more highly skilled at diagnosing individual student dilemmas
3) able to demonstrate enhanced communication skills
4) better able to diagnose individual learning styles
5) translate the elements of coaching they themselves experience to their own students.

In addition to trying to discover new ways to improve the coaching and mentoring of teacher interns, the University of Wyoming was stimulated to explore new technologies to help them with this process for other reasons. Wyoming is a rugged, rural state with a small population scattered over a wide geographic area. Our state has been aptly described as a medium-sized American town with very long streets. It requires seven hours to drive from Laramie, where the state's only four year institution of higher education is located , to Powell where one of the state's seven community colleges is located. There are only 4.7 people per square mile and according to the 1990 census report 35.1% of Wyoming's communities are classified as rural with populations of under 2,500. In this environment, meaningful change can be managed and models for improved access to information can be developed and tested for rural communities. In January of 1992, the state, through a statewide committee, selected a vendor and brought a compressed digital video network on line (via T1) to connect the University of Wyoming and the state's seven community colleges. This network provides a telecommunications backbone across Wyoming and will eventually be expanded to access other locations and resources across the nation. Costs to use the state network have been established at a very reasonable rate of $40.00 per hour for a point to point connection or for a multipoint connection of up to fourteen sites. This network provides the University with an opportunity to link with its

teacher interns or teacher interns on a regular basis to provide immediate feedback using technology.

In the fall of 1991, the College of Education, at the University of Wyoming, received a grant of $304,000, in part to develop a coaching/mentoring model for teacher interns over distance which can be employed over Wyoming's vast geographic areas. This Coaching and Mentoring model is being taught to sixteen practicing professionals across the state. The model incorporates the concept of immediate feedback for teacher interns assisted through the use of live, two-way interactive video over distance between a professor at the university who serves as part of a coaching and mentoring team with the practicing professional at the remote site. The teacher at the remote site uses insitu two way audio with the teacher intern at that location.

The U S WEST funded coaching and mentoring team consists of eight professionals, four from the University and four from the public schools. For the last six months these professionals have meet over compressed video to develop the coaching and mentoring course taught on a pilot basis during the fall of 1992. During the pilot the aforedescribed combination of technologies were implemented and evaluated in terms of their potential effectiveness for coaching and mentoring student teachers or teacher interns on an interactive basis as opposed to using post-hoc strategies for providing feedback. The course was designed over two-way interactive video for delivery over distance to professionals who had or will have teacher interns or teacher interns in their classrooms. The course teaches coaching and mentoring on site and at remote locations. Through the course distant professionals were taught:

1) how to use the two-way audio bugs with their teacher interns to

provide immediate feedback.

2) how to team coach their teacher interns using two-way interactive video with a professor from the University and

3) how to to use the audio bug and the two-way video simultaneously.

The Wyoming study collected data from each of six volunteer teacher interns and their coaching teams during the late fall of 1992, and the early spring of 1993, using the two way audio plugs which allowed the supervising teacher and the teacher intern to talk with or ask questions of each other. Each time the teacher intern asked a question the supervising teacher checked one of four categories (identified through the Giebelhaus and Cruz study) into which the question or request for feedback fell. These categories were: 1) content information, 2) instructional strategies, 3) classroom management, or 4) other. Simultaneously, post hoc feedback was provided to six teacher interns. At the end of the pilot all twelve teacher interns were evaluated by a panel of three to four people (two University professors and one to two public school professionals). The evaluation consisted of ten questions. Two questions were designed to serve as indicators of achievement in the following areas that the study claimed teacher interns using technology and immediate feedback would be:

1) more adept at teacher decision making
2) more highly skilled at diagnosing individual student dilemmas
3) able to demonstrate enhanced communication skills
4) better able to diagnose individual learning styles
5) translate the elements of coaching they themselves experience to their own students.

Each of the twelve teacher interns also turned in a 10 minute video

tape of their teaching from the last week of their experience. This tape was evaluated by the same evaluation teams. A composite evaluation was created and patterns which emerged from the evaluation were highlighted.

The question of whether the communications technologies being employed in Wyoming for feedback for teacher interns were as effective as face-to-face, post hoc feedback was addressed through identification of these patterns and the results applied to the revision of the coaching and mentoring course.

Bibliography

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Krapfl, J.E., Bry, P., and Newas, M. (1969). Uses of the bug-in-the-ear in modification of parents' behavior. In R.D. Rudin and C. Franks (Eds.), Advances in Behavior Therapy. New York, NY: Academic Press.

Nyquist, J. and Staton-Spicer, A. (1979). The use of non-traditional intervention strategies for improving the teaching effectiveness of graduate teaching assistants. Paper presented at the annual meeting of the Speech Communications Association, San Antonio, TX. (ERIC Document Reproduction Service No. ED 180042).

ITEC 4740
Field Studies in Coaching / Mentoring via Compressed Video
Fall 1992

I. DESCRIPTIVE INFORMATION:

A. Course Number: ITEC 4740
B. Course Title: Field Studies in Coaching / Mentoring via Compressed Video
C. Catalog Description: This course provides participants with strategies and techniques for developing coaching/mentoring relationships with colleagues and preservice teachers. This course is offered at various sites within Wyoming via compressed video.
D. Intended Audience: Educators with an interest in assisting preservice educators.
E. Credit Awarded: 3 graduate credits.
F. Prerequisites: None.
G. Instructors' Names & Phone Numbers: Mary Alice Bruce (W) 766-2366 (H) 721-8146; Connie Hytjan (W) 577-4593 (H) 237-5578; Lyn Lindell-Heasler (W) 721-4430 (H) 745-3216; Cindy Marton (W) 684-9518 (H) 684-5897; Penny McDill (W) 686-2373 (H) 686-6225; Rick Shade (W) 766-4927 (H) 742-0661; Donna Whitson (W) 766-6171 (H) 745-6103; D.J. Yocom (W) 766-4033 (H) 742-9484.

II. COURSE GOALS:

A. To develop knowledge and understanding of coaching/mentoring theories and processes.
B. To develop an awareness of collaboration and team building skills as they apply to the coaching/mentoring process.
C. To develop an awareness of adult education theories and practices.
D. To demonstrate a knowledge and understanding of effective interpersonal skills when dealing with student teachers.
E. To develop an awareness of the purpose, function, and value of data collection in a coaching/mentoring relationship.

F. To develop an understanding of and determine the value of reflective thinking in a coaching/mentoring relationship.
G. To develop and enhance reflective thinking skills.

III. COURSE OBJECTIVES:

A1. To provide learners with strategies and techniques for coaching/mentoring colleagues and preservice teachers.
A2. To expand learners' knowledge of the research in the areas of coaching, mentoring, and supervision, to include the definitions, characteristics, roles, responsibilities, and benefits.
A3. To discuss issues involved when providing effective assistance to colleagues and preservice teachers, to include necessary conditions, selection criteria, pairing variables, mentoring functions, and role expectations.
A4. To build a support network of coaching/mentoring colleagues throughout the State of Wyoming.
B1. To define collaboration and describe the characteristics of collaboration.
B2. To define and identify effective team functioning characteristics.
B3. To identify barriers to effective team functioning.
B4. To define and identify conflict in coaching/mentoring relationships.
B5. To identify several styles of conflict management.
B6. To define the role of leadership in team building.
C1. To define adult education.
C2. To demonstrate a beginning level of understanding about adult learning theories.
C3. To discuss adult learning style preferences that may contribute to more effective mentoring practices.
C4. To understand the similarities and differences in adult and K-12 learners.
D1. To identify personal characteristics that affect interpersonal relationship skills.
D2. To use interactive communication techniques that facilitate effective communication.
D3. To recognize that trust, cooperation, and understanding are key components in an effective mentor/student teacher relationship.

D4. To use a variety of strategies to deal with healthy and unhealthy conflict.

D5. To create a plan for developing a positive interpersonal relationship with the student teacher.

D6. To collaborate with other class members to create a plan for assisting student teachers develop positive relationships with students which, in turn, will increase student learning opportunities.

E1. To identify and demonstrate three data collection techniques: observational, verbatim, and Flanders Interaction Analysis.

E2. To identify the value of initiating data collection within a learning environment.

E3. To interpret and use data to modify and enhance teaching and the coaching/mentoring relationship.

E4. To collect data on an interaction activity via compressed video.

E5. To design and implement an appropriate individual data collection technique for personal use in a coaching/mentoring relationship.

F1. To define reflective thinking as appropriate to the coaching/mentoring relationship.

F2. To apply research findings to the reflective thinking process in the coaching/mentoring relationship.

F3. To review and analyze one model of reflective thinking.

F4. To identify appropriate techniques for initiating, maintaining, and improving reflective thinking skills.

G1. To analyze personal reflective skill strengths and weaknesses.

G2. To identify personal self-esteem / self-concept qualities that promote, deflect, or discourage the use of reflective thinking strategies.

G3. To develop an initial "format" for introducing and incorporating reflective thinking in a coaching/mentoring relationship.

G4. To identify the levels of the reflective process in a coaching/mentoring relationship.

IV. REQUIRED TEXT:

ITEC 4740 - Field Studies in Coaching / Mentoring via Compressed Video by Bruce, Hytjan, Lindell-Heasler, Marton, McDill, Shade, Whitson, & Yocom. 1992. Kinko's Packet #14.

V. INSTRUCTIONAL PROCEDURES:

Classes will consist of an initial face-to-face meeting in Casper, WY. Subsequent class meeting sites include Laramie, Casper, Gillette, and Sheridan via compressed video. Classes will consist of cross-site multi-media presentations, role-playing, group/individual problem solving activities, class discussions, lectures, demonstrations, required readings, and journaling.

VI. COURSE REQUIREMENTS AND ACTIVITIES:

A. Classwork will consist of a combination of the following cross-site activities:

1. Presented information and readings.
2. Individual/small group activities
3. Presentation of a videotape of a teaching lesson.
4. Development of a "creative plan".
5. Keeping a journal throughout the course.

B. **ATTENDANCE: ATTENDANCE IS MANDATORY! ALL WORK MISSED FOR ANY REASON IS THE RESPONSIBILITY OF THE LEARNER!**

VII. EVALUATION OF THE LEARNER:

Self-assessment is valuable to being an effective learner. Opportunities for self-assessment are included within this class. Points will be earned in the following manner:

	Total Points
1. Journal assignments	140
2. Video tapes	50
3. Creative plan	50
4. Readings/group questions	30
5. Selected Project(s)	30
	300
Extra credit	30

Evaluation Scale

A = 270 - 300
B = 240 - 269
C = 210 - 239
D = 180 - 209
F = < 180

S = >210
U = <209

From a distance, the world looks blue and green, and the snow capped mountain white.
From a distance, the ocean meets the stream, and the eagle takes to flight.
From a distance, there is harmony, and it echoes through the land.
It's the voice of hope. It's the voice of peace. It's the voice of every man.

From a distance, we all have enough, and no one is in need
And there are no guns, no bombs and no deceit -- no hungry mouths to feed.
From a distance, we are instruments, marching in a common band.
Praying songs of hope. Praying songs of peace. Praying songs of every man.

From a distance, you look like my friend, even though we are at war.
From a distance, I just don't comprehend what all this fighting is for.
From a distance, there is harmony, and it echoes through the land.
It's the hope of hopes. It's the love of loves. It's the heart of every man.

God is watching us from a distance.

---- Julie Gold. "From a Distance"

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CV - Session one notes
Friday, 12:45 - 2pm. Covention Cntr. Support issues, etc.

I. **Introduction**

A. Who we are
- CeCe's absence

B. Purpose
The presentation will address issues associated with compressed video educational support, specific applications, and the advantages and disadvantages of those applications.

C. Rationale for being here
- Use song lyrics to prompt thoughts concerning outreach to distant learners apart from the traditional classroom.
- Relate to the ethical and practical need for consistant and continued contact with the student.

D. Background
In the outreach programs of the College of Education at the University of Wyoming, a variety of educational support issues are beinig dealt with using the same technologies as the teletraining itself. This outreach is now being developed through compressed video and a collaborative effort with selected Wyoming school districts known collectively as the School/University of Wyoming Partnership. The Partnership has been exploring new ways to restructure teacher education and perform effective teacher development for the past six years.

1. Wyoming setting
With a small, rural population, a large land area, and only one university, Wyoming has a special need for distance education technologies, and the university has been aggressive in exploring applications for compressed video and integrated computer technologies. Wyoming studies have indicated that two-way interactive compressed video is a cost-effective system for providing some types of educational support.

2. Partnership
Describe Partnership -- see map

3. University setting
Australian model -- distance programs integrated into existing university structure. Same faculty teach on and off campus. New

outreach program of the College. Some existing support service infra structure and developing new ones.

4. CV network status/development

II. **Issues**

A second area of support for compressed video is that of logistics - see Steve's chapter 11 for a discussion of technical support. Not directly what is meant here but are some things to be mentioned.

A. Greater access demands

B. Increased need for educational support

C. Efficient allocation of resources

D. Effective intervention and feedback requirement

E. Preservice requirements for close supervision

III. **Applications**

A. Advisement

B. Recruitment

C. Counseling

D. Coaching and mentoring

E. Committee teleconferecing

1. Graduate committees

2. Partnership committees

F. Teacher support and resource exchange

IV. **Conclusion**

A. General results

B. Costs

C. Integrated approach