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Developing a Hybrid Research Course for Rural BSW Students

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Introduction

The literature on distance education in social work is limited (Petracchi & Patchner, 2000). Searching Social Work Abstracts with “distance education” as the search term yielded only 49 articles. The Council on Social Work Education has expressed that “as technology becomes more present in social work education it becomes viewed as simply part of the decisions faculty make to construct quality curricula (Wilson, 1999, p330).” Rural social work educators are often faced with the challenge of delivering social work courses in environments where distance makes it impractical for students to come to campus for classes. Distance education students have consistently stated that access and convenience are critical to meet their needs (Sullivan, 2001.) While technology for distance education continues to evolve, social work faculty has demonstrated reluctance in using the technology (Kleinpeter & Potts, 2000; Potts & Hagan, 2000; Rompf, 1999).

Many of the articles in the limited literature on distance education in social work indicate that distance learning outcomes, including knowledge and satisfaction, are not significantly different than outcomes for the same classes taught in a traditional manner (Haga & Heitkamp, 2000; Petracchi, 2000; Petracchi & Patchner, 2000; Petracchi & Patchner, 2001). However, the literature also indicates that there has been a lack of thoughtful planning in developing distance education social work courses and programs (Jeffery & Watkinson, 2005; Kleinpeter & Oliver,
Thoughtful planning is particularly important in rural areas where geographical distance, infrastructure, and technology may be barriers to distance education.

Although the use of Interactive Television (ITV) is discussed frequently in the literature, the use of compressed video (CV) is absent. Also, the majority of the literature involved MSW programs (Wilke & Vinton, 2006). This paper addresses teaching BSW research in a rural state. It discusses the incremental use of teaching in three hour blocks, teaching in two eight hour blocks on weekends, and incorporating compressed video with one eight hour block on Saturdays to develop a hybrid BSW research course that fit the needs of rural BSW students.

There were two research questions for this study. First, will a hybrid research course receive student evaluations similar to those of a traditional face to face research course? Second, will the students in hybrid course increase their knowledge about research?

**Combination of Courses into a Hybrid Course**

The combination of two sections of a BSW research course into a hybrid distance learning course will be presented in this article. Two sections of the same course were originally taught face-to-face at two sites that were 250 miles apart. One section was taught on the primary campus of the state university on Tuesdays and Thursdays. The second section was taught at an outreach site on three weekends. These two research courses were combined into one course that used compressed video and three intensive all day face-to-face Saturdays. Course evaluations and pretest/posttest research findings are presented. Strategies for teaching on compressed video and using other technology to supplement compressed video are discussed.

The rural social work program was charged with delivering its BSW program statewide. It was costly and time consuming for faculty to drive 250 miles to deliver the course over three
weekends. The roads to the distance education site were in poor condition. Inclement weather including blizzards, ice storms, and thunderstorms often made travel dangerous. Instructors who taught courses in the three weekends format all agreed that by midmorning on Sunday morning the students were exhausted, overwhelmed with new content, and not likely to be able to learn any additional material. In addition to the problems with travel and pedagogical concerns the rural social work program was not provided with any additional faculty to deliver the BSW program statewide. The hybrid course emerged as a way to address the needs of both rural students and faculty.

Good distance education fits with the social work premise that one “begins where the client is.” Rural areas have few if any public transportation options (Marks, Dewees, & Koralek, 1999.) For some rural students the use of compressed video and intensive Saturday face to face classes was more time and cost effective than coming to the university campus twice each week. The combination of compressed video and intensive Saturday face to face sessions eliminated the need for students to stay in a hotel over the weekend. It allowed students in geographically isolated rural areas to see their instructor every week instead of waiting several weeks between intensive weekend sessions. It also allowed the instructor to see the students every week. There was weekly contact without the need for weekly travel. Social work educators must reach out to students in rural areas to tap and develop the human resources which are present in communities (Saleeby, 1992). This is particularly important for rural communities because human resource pools may be smaller.

Compressed video involves one primary classroom from which the instructor teaches and several remote site classrooms. All of the classrooms have compressed video technology that allows students and instructors to see and communicate with each other in real time. Remote
sites are seen and heard by the instructor on a large screen television. Unlike Interactive Television (ITV), there is no need to use a telephone to call in questions to the instructor. When students have something to say they can hold up their hand and ask a question or make a comment. The video and audio are transmitted via digital transmission lines that make this real time interaction possible. It takes a moment for the communication to be broadcast across the digital lines so there is a slight delay that can result in students speaking at the same time or missing each others’ comments. As students and instructors became familiar with the process, they quickly learned how to avoid these situations. Although digital transmission lines were available in this case, rural social work educators need to be aware of what resources are available in their area.

**Teaching Social Work Research in Two Formats**

As mentioned previously, a BSW research course was taught in two course sections to meet the needs of a rural state’s BSW students. Section one, the traditional class, was taught at the state university on Tuesdays and Thursdays from 9:30 to 11:00 a.m. This class was taught in a very traditional fashion with lecture, group exercises, written assignments, and examinations.

Section two, the Block Three Weekends class, was taught at an outreach site approximately 250 miles from the state university in order to offer the course to rural outreach students. Section two was taught from 8:00 a.m. to 5:00 p.m. on Saturday and Sunday for three weekends. Lecture, group exercises, written assignments, and examinations were used for this course also, but the instructor used strategies to maintain the best learning environment possible. For instance, lectures never exceeded one hour, group activities were used more frequently, and students were required to leave the classroom during breaks. The same instructor, using the
same textbook and the same assignments, taught the courses to maintain comparability between the two courses.

Bloom’s taxonomy of learning was applied throughout both of these courses as well as the hybrid course (Anderson & Krathwohl, 2001). The taxonomy involves three types of knowledge dimensions including Factual, Conceptual, and Procedural knowledge. Factual knowledge involves students learning the basic elements to be acquainted with a subject, such as research. Conceptual knowledge means that students can understand the interaction of the basic elements and how they interact within the framework or structure of a subject. Finally, Procedural knowledge involves knowing how to do something or in the case of research, how to formulate a proposal for future research.

Bloom’s taxonomy also includes six different levels of learning (Pregent, 1994). The levels in ascending order are knowledge, comprehension, application, analysis, synthesis, and evaluation. Bloom’s taxonomy of learning appears in Appendix A. Knowledge is level one on the taxonomy and is described as “being capable of recalling words, facts, dates, conventions, classifications, principles, and theories.” Knowledge is a very concrete type of learning. Evaluation is level six and is described as “being capable of making a critical judgment based on internal and external criteria.” Evaluation is an abstract type of learning when compared to Knowledge. The exams in all of the research courses involved measuring learning at the knowledge level. In contrast, written assignments required demonstration of “Analysis” as the minimum acceptable level of learning. Some assignments such as developing a research proposal or designing a single case research study required demonstration of the Evaluation level of learning.
For all the courses described in this paper the types of knowledge according to Bloom’s taxonomy were measured in the following ways. Factual knowledge was measured using examinations containing multiple choice, true/false, and short answer items. Conceptual knowledge was measured through a written assignment. This assignment was an annotated bibliography of four research articles which required the student to identify each component of the article such as research question, methodology, and sampling. The students were required to be able to articulate the relationship between components. For instance, if the study described in one of the articles used random sampling, the student was required to understand and articulate that the results of the study were generalizable. Procedural knowledge was measured by the student submitting another written assignment. This assignment was an outline for future research on the topic of her or his choice. The outline was required to demonstrate an understanding of the convergence of research regarding the topic, provide a rationale for choices such as method and sampling, and justify the feasibility of the proposed study.

**Development of Hybrid Course**

Several factors including reduced resources, ensuring comparability across course sections, and attempting to better serve rural students led to the combination of the two course sections into a hybrid course. The hybrid course was offered on compressed video across the state at multiple sites on Thursdays from 5:30 to 7:00 p.m. and on three Saturdays from 8:00 a.m. to 5:00 p.m. The original plan for the course was to have the all day Saturday sessions in different locations, with the first and third Saturday sessions offered at the state university campus and the second Saturday session offered at the Outreach site. However, because of scheduling difficulties and lack of space at the Outreach site, all 3 Saturday sessions were offered at the state university campus.
Strategies for the Rural Hybrid Course

The rural hybrid course was developed carefully. Assistance from the Center for Teaching Excellence at the university, collaboration with the university’s Outreach school, and consultation with other faculty were a part of the process. Critical decisions made in developing a course that involved both intensive Saturday sessions and compressed video meetings were made thoughtfully and guided by Bloom’s taxonomy of learning as explained earlier in the paper (Anderson & Krathwohl, 2001.) The strategies and some educational techniques are presented below.

Intensive Saturday Session Strategies

The Saturday sessions were used for interactive activities that would have been difficult to conduct on-line or through compressed video. These Saturday sessions also helped the students to get to know each other and the professor. In many rural settings people, including students, tend to distrust outsiders. Seeing the students in person was reassuring to both the students and the instructor for this reason. Interactive group activities such as designing survey instruments, doing qualitative field observations, or selecting sampling and research methodologies for conducting needs assessments with populations at risk in rural areas were used to assist with developing Procedural knowledge as a group. Lunch was also provided for students in order to build a sense of community and to provide a respite from an all day class.

The Saturday sessions were important for developing a sense of cohesiveness in the class and a bond between the students. Cohesiveness was based on the instructor’s observations of the class. As the class members got to know each other questions and discussions tended to involve the entire class rather than small groups or clicks within the class. The class members also referred to themselves as “we” in statements such as “we are very glad to have you hear to teach...
us on the weekend.” Class members frequently spent breaks and lunch periods together rather than splitting into small groups and going their separate ways.

**Compressed Video Strategies**

There were several strategies that were used to in an attempt to provide the best compressed video experience possible for the students and the professor in the hybrid course. In a compressed video course, Elmos or Power Point may be used for presentations. Elmos are like an overhead except that they broadcast across compressed video and have the capability of showing three-dimensional objects. Elmos are easiest to read if they are printed on light blue paper and use a minimum font size of 32. Power Point presentations should use high contrast colors for text/background. For example, yellow text with a dark blue background works well.

One strategy that was used during the rural hybrid course to make the compressed video portion of the class more student and professor friendly was having students introduce themselves the first day and tell a brief story about their experience with research. This ensured that every student would use the compressed video technology to speak during the first class. Other strategies were to call on students by name and acknowledge their contributions to class. Yet another strategy is to invite them to respond to class comments and lecture material and be assertive in calling on students to help them learn to use the technology. As with any class, a good sense of humor helps ease tension regarding new material or in this case, a new way of teaching and learning.

**Course Evaluations**

**Quantitative Course Evaluation Measures**

The course evaluations for the BSW Research class in the three different formats are presented in Table One. The Traditional Tuesday and Thursday class from 9:30 to 11:00 and the
Three Weekends class 8:00 to 5:00 were during the fall semester of one year. The hybrid course was taught during the fall semester of the following year. It consisted of compressed video 5:30 to 7:00 p.m. on Thursdays and three 8:00 a.m. to 5:00 p.m. Saturdays. The Course Evaluation forms were those the university used for all courses. The quantitative portion used a Likert type scale with 1 indicating poor and 5 indicating excellent. Individual items included 1) Clarity and course purpose/objective; 2) Distribution of course requirements; 3) Informational content of lectures; 4) Organization of lectures; 5) Presentation of lectures; 6) Varies the mode of presentation; and 7) Overall rating of the course. Mean scores and standard deviations are presented for each item.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Tues/Thurs Traditional Fall 1999 (n = 29)</th>
<th>3 Weekends Class Fall 1999 (n = 16)</th>
<th>Hybrid Course Fall 2000 (n = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Clarity and course purpose/objective</td>
<td>M = 4.24 SD = 0.830</td>
<td>M = 3.94 SD = 0.680</td>
<td>M = 4.18 SD = 0.772</td>
</tr>
<tr>
<td>2) Distribution of course requirements;</td>
<td>M = 4.55 SD = 0.910</td>
<td>M = 3.94 SD = 0.772</td>
<td>M = 4.32 SD = 0.723</td>
</tr>
<tr>
<td>3) Informational content of lectures;</td>
<td>M = 4.14 SD = 0.915</td>
<td>M = 4.38 SD = 0.500</td>
<td>M = 4.29 SD = 0.763</td>
</tr>
<tr>
<td>4) Organization of lectures;</td>
<td>M = 4.41 SD = 0.907</td>
<td>M = 4.50 SD = 0.632</td>
<td>M = 4.39 SD = 0.832</td>
</tr>
<tr>
<td>5) Presentation of lectures;</td>
<td>M = 4.10 SD = 1.012</td>
<td>M = 4.31 SD = 0.946</td>
<td>M = 3.89 SD = 0.956</td>
</tr>
<tr>
<td>6) Varies the mode of presentation;</td>
<td>M = 3.38 SD = 0.903</td>
<td>M = 3.69 SD = 0.602</td>
<td>M = 3.36 SD = 0.989</td>
</tr>
<tr>
<td>7) Overall rating of the course</td>
<td>M = 4.17 SD = 0.928</td>
<td>M = 4.07 SD = 0.704</td>
<td>M = 3.71 SD = 1.117</td>
</tr>
</tbody>
</table>

A One Way Analysis of Variance (ANOVA) was conducted and showed no statistically significant differences between the three classes on the seven variables. Despite the lack of statistically significant differences the means show some differences between the classes that are
worth discussing. Variables one and two, clarity and course purpose/objective (m = 3.94) and
distribution of course requirements (m = 3.94), were both rated lower for the Three Weekends
class. Distribution of course requirement refers to the distribution of exams, written
assignments, and assigned activities such as doing qualitative observation over the semester.
Since the Three Weekends class only met for six days throughout the semester it was common to
have a paper due, an exam to take, and an assigned research activity to do during one weekend.
The time to meet with the students was in two 8 hour blocks on three weekends. The intensive
weekend class format was paralleled by an intensive exam, papers, and research exercises
schedule.

Variables three and four, informational content of lectures and organization of lectures,
were rated similarly for all three classes. Variable five, presentation of lectures was rated
slightly lower for the hybrid class with a mean of 3.89. Variable six, varies the mode of
presentation, was similar for all three classes. Variable seven, overall rating of the course, was
rated the lowest for the hybrid class with a mean of 3.71 compared to a mean of 4.17 for the
Traditional Tuesdays and Thursdays class and a mean of 4.07 for the Three Weekends class.

Anecdotal comments from Hybrid Course

Anecdotal comments on the course evaluations for the hybrid course varied. There were
several negative comments regarding the compressed video technology such as: “compressed
video is a really hard way to learn,” “many times the compressed video was not working
properly,” and “a lot of technological difficulties with compressed video.” The hybrid class also
included three Saturdays of face-to-face teaching in a traditional classroom. There were some
negative comments about the all day Saturday classes as well. These comments included
“Saturday classes are tough, by 3 p.m. we have all had enough,” “a Saturday class doesn’t seem to give one a break,” and “no more Saturday classes.”

On a more positive note, some students showed enthusiasm for the hybrid course. Comments included “great class,” “gets me fired up to do research,” “I was pleased for a first time CV class,” and “this class has provided me with life long skills for effective practice.”

**Pretest Posttest Results**

A Pretest/Posttest instrument designed by Rubin and Babbie (2008) was administered at the beginning of the hybrid course on the first Saturday session and at the end of the course during the final Saturday session. It was a 100 item True/False questionnaire that had been tested for reliability and validity. The questions were taken directly from the test bank for the Rubin and Babbie (2008) textbook. One question was “If a purposive sample was used to select participants for a study the results of the study are generalizable.” Another example is “Internal validity involves the relationship between the independent and dependent variables.” The maximum possible score on the questionnaire was 100. The mean pretest score was 69.18 (sd = 7.63). The mean posttest score was 75.76 (sd = 7.88). Dependent sample t-tests (t = 3.202, p < .01) indicated a significant difference between the pretest and posttest. This instrument measured both Factual and Conceptual knowledge on Bloom’s taxonomy of learning (Anderson & Krathwohl, 2001). The Factual and Conceptual knowledge was measured by the Rubin and Babbie pretest posttest instrument for this article. Within the course the theory constructs were measured by exams, several small written assignments, and one primary written assignment.

**Discussion of Results**

Teaching a hybrid course was a new experience for us as a rural social work educators. It was different teaching research over compressed video. In a traditional classroom, instructors
can see the students’ faces are able to tell if they aren’t getting a particular concept. Over compressed video instructors only get to see the students’ faces if one student asked a question and the video technician zoomed in on the person. Instructors could see one person’s face clearly, but not the groups’ faces. It was also difficult when there were problems with the video or audio portions of compressed video. If only the video portion was working, instructors communicated via a white dry erase board. If only the audio was working, instructors communicated by voice and instructed the students to look at specific examples in their books. Sometimes it was a bit of a challenge but the challenges were solvable. The course evaluations confirmed that even though there were challenges the hybrid course and its technology were a viable way to deliver a BSW research class to students in isolated rural areas.

Although there were no statistically significant differences between the three classes, the data pose some areas of inquiry for future research. The scores for the hybrid class on variables one and two, clarity and course/purpose objective and distribution of course requirements, were similar to the traditional class scores.

The similar scores for the hybrid course on quantitative course evaluation variables three and four, informational content of lectures and organization of lectures, were encouraging. The instructors attempted to deliver the same information and organized the lecture content in a similar fashion as in the previously offered courses. The hybrid course score on quantitative variable six, varies the mode of presentation, was also encouraging as it was similar to the other two classes. Teaching research to BSW students requires a substantial amount of lecture because for most BSW students the social work research course is the first research course they have taken. This is especially true for rural BSW students as many of them have no previous college experience and some of them are first generation college students. They are learning new
content including the language of research, theories concerning research, research methodologies, and how research relates to social work as a discipline in evaluating practice and furthering social and economic justice.

Variable five, presentation of lectures, was rated lowest for the Hybrid class. This lower rating may be related to the compressed video technology and difficulties experienced with it, the all day Saturday classes, a combination of these variables or other variables not mentioned in the course evaluation. Social work educators should be mindful that a large range of attitudes towards technology, including computers and proficiency with them, still exists among social work students (Frey & Faul, 2005). However, this should not limit their use of technology in the classroom, but rather their approach to students. Variable seven, overall rating of the course, was rated the lowest among the three classes for the hybrid class. While this is not encouraging, the mean of 3.72 is closer to a score of 5, or excellent, than it is to a score of 1, or poor. The significant difference on the pretest/posttest questionnaire was positive, indicating an increase in research knowledge occurred for the students in the Hybrid course.

**Limitations**

There are numerous limitations to this study. The greatest limitation was that this study used a nonrandomized sample and had a low number of participants. The sample was one of convenience and the results from this hybrid course are not generalizable to other compressed video or mixed format courses. This study only involved the evaluation of one rural hybrid course that may have had unique qualities because it was the first time it was offered in the combined compressed video and intensive Saturday class meetings format. Both the professor and the students may have become more familiar with the compressed video technology as it was used during the semester. The course evaluation instrument has not been tested for reliability and
validity. The anecdotal comments on the course evaluations may not be representative of the entire class as students who took the time to write comments may have had stronger opinions than students who chose not to write comments. Finally, although the pretest/posttest scores showed a significant increase in research knowledge, the pre-experimental design did not control for any threats to internal validity. The increase in research knowledge cannot be attributed to the research class.

Summary

Despite the limitations, there were some indications that mixed format courses may be a viable educational strategy for rural social work programs. The evaluations of the hybrid course were similar to the Traditional Tuesdays and Thursdays class as well as the Three Weekends class on all of the variables and showed no statistically significant differences. The lower score on the overall rating for the course of the hybrid was not the desired outcome, but certainly satisfactory. A rating of nearly 4 (3.72) on a Likert type scale of 1 to 5 with 5 being excellent is acceptable. The anecdotal comments, while conveying both positive and negative views of the hybrid course, at least offered some positive feedback. The pretest/posttest questionnaire indicated some increase in research knowledge, although it cannot be claimed that the increase in research knowledge was caused by the course.

It should be noted this article focused on rural social work education rather than rural social work practice. Teaching research through distance education to students in a rural environment is intended to assist them to engage in practice oriented research. Practice oriented research is required in order to practice ethically (Rubin & Babbie, 2008.) The delivery of research education to rural locations will hopefully lead to increased professionalism in evaluating practice in these areas.
Administrators of rural social work programs should consider the use of distance education technology and traditional classroom learning for their courses. The distance education technologies such as internet based virtual classrooms and compressed video allow instructors in isolated rural areas to reach students who cannot attend a full time on campus BSW program. The traditional classroom learning allows students to meet their instructors and classmates in person. Instructors can make use of this traditional classroom learning time to teach skills or content that is not easily taught through distance education technologies. One example would be teaching students how to conduct interviews or complete assessments. The mix of distance education technology and traditional classroom learning provides flexibility to the students and the instructors. It also allows the instructor and students to get to know each other in a face to face manner which adds direct human interaction to the course.

There are additional advantages of teaching a class as a hybrid. If inclement weather or some other factor makes it impossible to conduct a traditional classroom session, the instructor has the option of using distance education technology to inform the students regarding alternative plans for completing assignments or checking in with them to reschedule the traditional classroom learning session. The course evaluation forms indicated comparable ratings for the hybrid class and traditional classes. This indicates that a hybrid course is a viable alternative to traditional classes which are conducted completely in classrooms. Instructors should consider developing hybrid courses to serve students in rural areas who may not be able to obtain a social work education in any other manner. The combination of distance education technology reducing the expense and danger of travel to class and the personal touch of some traditional classroom learning may be a very good fit for students in isolated rural areas.
Conclusion

While combined format courses such as the hybrid course described in this paper are not a panacea for rural BSW social work educators, they may offer a compromise that is a practical alternative to offering multiple course sections or not offering courses in rural and remote areas. As is always the case with evaluating educational methods, more research into mixed format classes would help social work educators make informed choices about the use of such classes. When considering strategies for the education of rural social work students using distance learning technology such as compressed video and having traditional classroom face-to-face time are not mutually exclusive. One important task is to continually assess hybrid and distance education courses in order to capitalize on successful components and improve components which demonstrate problems with the educational process. The purposeful selection and combination of technology and traditional teaching methods, based on the needs of diverse rural students, holds promise for rural BSW social work educators.
Appendix A

Bloom’s Taxonomy of Learning

Taxonomy of Knowledge Dimensions by Benjamin Bloom

**Factual:** learning the basic elements to be acquainted with a subject.

**Conceptual:** understanding the interaction of the basic elements and how they interact within the framework or structure of a subject.

**Procedural:** knowing how to do something.

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Taxonomy of Learning Objectives from the Cognitive Domain by Benjamin Bloom

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>TYPE OF PERFORMANCE</th>
</tr>
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<tbody>
<tr>
<td>6. Evaluation:</td>
<td>Be capable of making a critical judgment based on internal and external criteria.</td>
</tr>
<tr>
<td>5. Synthesis:</td>
<td>Be capable of accomplishing a personal task devising a plan of action.</td>
</tr>
<tr>
<td>4. Analysis:</td>
<td>Be capable of identifying the elements, relationships, and organizational principles of a situation.</td>
</tr>
<tr>
<td>3. Application:</td>
<td>Be capable of remembering knowledge or principles in order to solve a problem.</td>
</tr>
<tr>
<td>2. Comprehension:</td>
<td>Be capable of transposing, interpreting, and extrapolating from a certain body of knowledge.</td>
</tr>
<tr>
<td>1. Knowledge:</td>
<td>Be capable of recalling words, facts, dates, conventions, classifications, principles, theories, etc.</td>
</tr>
</tbody>
</table>

Bloom’s taxonomy starts with very concrete tasks such as remembering Knowledge. As you move up the taxonomy the taxonomy requires more abstract tasks such as Analysis. Analysis involves being able to identify the elements, relationships, and organizational principles of a situation. This requires a higher level of abstract thought than Application, Comprehension, and Knowledge.


References


