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Virtual Instruction: A Qualitative Research Laboratory Course

Lee Stadtlander
Walden University

Martha J. Giles
Walden University

RUNNING HEAD: Virtual Lab Course

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Lee M. Stadtlander and Martha J. Giles

Walden University

Abstract

Online graduate programs in psychology are becoming common; however, a concern has been whether instructors in the programs provide adequate research mentoring. One issue surrounding research mentoring is the absence of research laboratories in the virtual university. Students attending online universities often do research without peer or lab support and without previous experience in supervised research projects. This paper describes a virtual qualitative research lab course at an online university that both mentored students and collected data through a virtual qualitative lab on a national scale. The authors also address logistics, problems and issues that arose, as well as suggestions for future courses.

Virtual Instruction: A Qualitative Research Laboratory Course

There are currently a number of graduate psychology programs that are predominately online (e.g., Capella University, Fielding University and Walden University). However, a key element of graduate training is the in-depth intellectual mentoring, particularly in research training. There has been concern as to the ability of instructors to mentor students in an online environment (Belar, 2006). This paper will explore the implementation of a graduate online qualitative laboratory and its effectiveness in terms of research methodology and in mentoring the student participants.

Research and Graduate Education

The importance of research mentoring in graduate education has long been a concern for psychology. Before the 1960s, a research focused model leading to the Ph.D. was typical (Ellis, 1992; Roe, Gustad, & Moore, 1959). During this time, students were trained to teach and do research with the expectation that they would enter into academic positions (Altman, 1990; Ellis, 1992).

In the 1960s, as more career options became available for clinical psychologists, the traditional model began to be questioned (Ellis, 1992). However, the issue of research mentoring remains contentious, particularly for future practitioners (Gelso, 1993, 2006). Opportunities for research go beyond simply learning research skills, but also training needs to influence students at the motivational level. As Gelso (2006) describes, "we need to light a fire under our students – to show them how research can be exciting and rewarding" (p. 4). In order to facilitate such motivation several elements are required: (a) trained research supervisors to mentor the students, (b) the laboratory facilities to conduct research in which students can participate. Is it possible

for doctoral distance learning institutions to offer such research mentorship in an online

laboratory environment?

Online Issues

The essential characteristic of distance programs is that students and instructors are

geographically dispersed (Murphy, Levant, Hall & Glueckauf, 2007). With the advent of the

internet, such programs can incorporate video, email, and various classroom software (i.e.,

blackboard, e-campus), as well as telephone communication and in-person meetings.

Some issues are unique to the online environment. As Stadtlander (1998) highlighted,

personality issues can become an issue due to the lack of social context cues (Hiltz & Turoff,

1978; Rice & Love, 1987). Dixon and Stone (1997 as cited in Rudestam, 2004) reported that

affective messages strongly influence online students and such messages tend to be read and

reread. Therefore, it becomes important for participants to carefully write postings so that they

are not misinterpreted (Rudestam, 2004).

Online Research Labs

There have been a few papers on virtual research laboratories; however, typically the use

of shared remote equipment was the basis of the paper. For example, González-Castaño et al.

(2001) designed an internet access laboratory that provided remote access to equipment used in a

Computer Architecture laboratory. Hesselink et al. (2003) introduced a design for a remote

laboratory on an optical processor. Duan, Hosseini, Ling, and Gay (2006) detailed a lab based

computer systems course. However, there are no descriptions of psychology based virtual

research labs in the literature.

Qualitative Research

Qualitative research methodology refers to research that produces descriptive data, people's own written or spoken words and observable behavior (Taylor & Bogdan, 1998). Qualitative researchers are concerned with the meanings people attach to issues in their lives. Researchers develop concepts, insights and understandings from patterns in the data rather than collecting data to assess preconceived models, hypotheses or theories in an inductive process.

In the present study the in-depth interview was used, in order to learn how people construct their realities – how they view, define, and experience the world (Taylor & Borgan, 1998, p. 101). The interviewer must be careful to allow the interviewee the opportunity to express their views without biasing the responses. The researcher must maintain a delicate balance: a relationship needs to develop between the interviewer and interviewee such that trust is established and yet the interviewer is able to get the needed questions answered. As will be discussed in the following section, this element of training the students in the interview technique was more difficult than initially anticipated.

A Virtual Qualitative Lab

In summer 2008, the authors received a faculty initiative grant from Walden University to conduct a qualitative study on the current life experiences of people over 85 years (the oldest old). In order to have the opportunity to gain participants from across the U.S. and allow student participation they developed an online laboratory. E-college software provided the framework, which allowed for asynchronous discussions and the ability to post information, such as downloaded Word files. The course, Independent Research, was an elective course available to doctoral students in the clinical, health, or general psychology specialties.

Walden University student list servs posted the availability of the project, with interested students completing applications. Twenty-nine individuals submitted an application, which were then sorted by area of the country and priority was given to those students who had previously taken a qualitative research course and had previous experience in gerontology. This resulted in seven students selected and registered in the course. They were a geographically diverse group with individuals from Ohio, Missouri, Florida, Texas, Washington, Arizona, and California. The instructors lived in Montana and Minnesota.

Prior to the course starting, all students received an Olympus digital voice recorder, purchased through the grant. The instructors developed and tested interview questions in focus groups. The instructors also developed a poster to solicit for elderly participants, as well as, consent forms, demographic questions, and scripts for contacting facilities, which were all sent to the students. They also submitted an application to Walden University's Institutional Review Board (IRB).

During the fall quarter, students received a list of readings on qualitative methods and gerontology, a copy of the grant application, and a copy of the IRB application (see detailed course assignments in Appendix A). Students also received a letter from the PIs/ instructors, which described the project and business cards from the PIs, all of which they provided to potential facilities. Each participating facility administrator signed a participation agreement, which the instructors forwarded to the IRB along with consent forms from each participant.

Students and instructors participated in three conference calls throughout the 12-week quarter (two were initially planned; a third was added, as discussed below). During the calls, the instructors provided additional training, answered questions, and clarified procedures. The instructors recorded and posted the calls in the classroom for later review, as needed.

Interview Training. Students received instructions on how to do qualitative interviewing and were required to practice interviewing a friend, then an older adult, recording and submitting the interviews via email to the instructors. The digital recorders allowed the recordings to be directly downloaded and sent by email. Both instructors reviewed and provided feedback on the recordings. Through the review of the recordings, it was found that students had difficulty with the interview process. As a result, an additional conference call was held in which all class members listened to one instructor interview the other, and students had the opportunity to critique the interview and ask questions. The students then interviewed an additional older individual as practice, the instructors reviewed this recording, and if satisfactory, the student could begin the actual research interviews. If the additional interview was not successful, the student received feedback and was required to do another practice interview.

Research Procedures. The seven students contacted facilities, followed up with interested individuals, and completed six three-hour interviews each, resulting in 42 interviews. The students submitted the recordings by email, along with all paperwork, including the consent forms. To achieve a passing grade in the course, students had to submit these items by the end of the quarter.

Course Assignments. Along with the research recordings and paperwork described above, the students were required to post responses to two discussion questions per week, concerning the research procedures and gerontology. They also were required to post a one-page journal entry per week on the research/ course experience,

Student Learning

The course relied on two primary measures of student learning. First, the recordings directly evaluated their interview skills. The instructors reviewed the recordings listening for the

use of follow up questions and maintaining a conversational style while asking the questions. Students received a critique of each practice recording, and needed instructor approval to continue.

Second, students submitted a one-page journal entry weekly. In the journal, they reflected on what they learned during the week, their feelings toward the course and the project, and any unmet needs. In order to examine these journal entries empirically, the researchers used Qualrus, a qualitative software program. They used entries from weeks 1 and 2 (early part of the quarter), 6 and 7 (middle of the quarter), and 11 and 12 (end of quarter); they then downloaded the papers and coded for themes that reoccurred. The researchers randomly assigned students a letter in this paper to identify their responses yet preserve their anonymity.

In week one, five of the seven students mentioned being nervous about conducting interviews and working with elderly individuals. Beginning as early as week two students asked questions that could lead to future studies: "I wonder how or whether living through hurricane Ike and the aftermath will influence the themes from the study" (student who lived in area of hurricane, student B). "I also would like to ask at least one question up front and again at the end, to see how the project may have changed the participants' perceptions" (student G).

Other early comments also showed insights into critical thinking: "For instance, the VandenBos article discusses the concept of successful aging. Although there is no right or wrong answer, this challenged me to reflect upon my own past, present, and future life and how I would view this concept" (week 2, student F).

The reality of research was evident by weeks 6 and 7, such as this comment about the difficulty of getting participants: "My main issue at this point is that the facilities have not yet contacted me back. It's been over a week and I am a little worried" (week 7, student E).

By the end of the course, students showed an awareness of the social implications of the study: "One thing I have noticed about the caregivers at this facility is how they view the oldest-old. I have had contact with the directors or administrators …it seems that they forget that they too will one day get to be this age" (week 11, student C).

They also showed personal growth and development: "I have greatly increased my overall knowledge of the oldest-old, research that has been conducted on this topic, and feel a bit more comfortable and confident in moving forward with my dissertation topic" (week 12, student F). Student F (week 11) captured the students' experiences with "I feel a sense of sadness when I leave participants. I think this is because I wonder if I will ever see them again. I care about these folks well beyond just collecting data."

Suggestions and Lessons Learned.

At the end of the course, students indicated that they enjoyed giving their opinion of the interview questions and procedures, although it appeared to raise anxiety at the time. One difficulty with online instruction is that students tend to feel isolated and fear responsibilities that they cannot handle. Clear expectations and instructor availability via phone and email in addition to their presence in the online course was essential to reduce the student anxiety.

As previously described by Stadtlander (1998), personality issues occasionally caused a flurry of activity and concern between the students. At one point, a procedure was unclear and resulted in long online discussions between students and instructors, as they tried to clarify the item. Students also expressed that they would have liked to help with the analyses, which was not possible in the time involved.

Advanced preparation of materials allowed the course to run smoothly. Having two instructors was essential, listening to and analyzing the large number of recordings would have

been difficult for one person. Despite the difficulties related to training issues and student anxieties, the advantage of being able to collect a large amount of data in a geographically diverse population with also providing student research opportunities, was well worth the effort. In the future, stronger requirements for participation in the study would be appropriate: students must have a background in interviewing strategies, qualitative method, and strong interpersonal skills; the authors suggest using a telephone interview to screen applicants, rather than just an application.

Summary and Implications

The advent of the internet and graduate online learning has resulted in a gap in research mentoring that has been difficult to resolve. This paper described a virtual qualitative research lab that both mentored students and gathered data from a large number of participants across the US.

The project clearly demonstrates the feasibility of research mentoring online and suggests that distance-learning instructors, trained in the research process, are capable of mentoring and adequately conducting research. Such mentoring does require an appropriate research question and requires additional resources, such as conference call capability and digital recorders. Future instructors may wish to explore a quantitative research lab, with the opportunity for students to analyze the data collected.

Authors' Notes

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Taylor, S.J & Bogdan, R. (1998). *Introduction to qualitative methods: A guidebook and resource*

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Appendix A

Course Assignment Summary

Week 1:

Hinck, S. (2004). The lived experience of oldest-old rural adults. *Qualitative Health Research,*
         14, 779-791.

Stadtlander, L. & Giles, M. (2008). Research Grant

Materials for contacting assisted living, nursing home and senior center, flyer posted in
         classroom
Paperwork, name tags, digital recorders sent to students by mail

Week 2:
This week you will be reviewing the paperwork for the project, researching the mandated
reporter laws for your state and begin learning about gerontology.

VandenBos, G.R. (1998). Life span developmental perspectives on aging: An introductory
         overview. In I.H. Nordhus, G.R. VandenBos, S. Berg, & P. Fromholt, *Clinical*
         Geropsychology (pp. 3-14). DC: APA.

Paperwork instructions for project
Research mandated reporter laws for state.

Week 3:
This week you will continue learning about gerontology and begin learning about qualitative
research

Dunkle, R., Roberts, B. & Haug, M. (2001). The old growing older: An overview (pp. 1-16). In
         The oldest old in everyday life. NY: Springer.

Seidman, I. (2006). Why interview? (pp. 7-14). In *Interviewing as qualitative research: A guide*
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         Press.

Seidman, I. (2006). A structure for in-depth, phenomenological interviewing (pp. 15-27). In
         Interviewing as qualitative research: A guide for researchers in education and the social
         sciences, 3rd edition. NY: Teachers College Press.

Week 4:
This week you will continue learning about qualitative research and learn about the Mini Mental
Exam.

H.J. Rubin & Rubin, I.S. *Qualitative Interviewing: The art of hearing data*, 2nd edition (pp. 1-
         38).CA: Sage.

Salthouse, T.A. (1998). Cognitive and information processing perspectives on aging. In I.H. Nordhus, G.R. VandenBos, S. Berg, & P. Fromholt, *Clinical Geropsychology* (pp. 49-60). DC: APA.

Mini Mental Status Exam: Down load one or two of the MMSE from a web search, and examine the issues that are identified through their use.

Week 5:
This week you will continue learning about interviewing.

Seidman, I. (2006). Technique isn't everything, but it is a lot (pp. 78-94). In *Interviewing as qualitative research: A guide for researchers in education and the social sciences, 3rd edition*. NY: Teachers College Press.

Seidman, I. (2006). Interviewing as a relationship (pp. 95-111). In *Interviewing as qualitative research: A guide for researchers in education and the social sciences, 3rd edition*. NY: Teachers College Press.

Week 6:
This week you will learn about the measures that we will be using.

Powell, L.M. & Brody, E. (1969). Assessment of older people self maintaining and instrumental activities of daily living. *The Gerontologist, 9*, 179-186.

Scholz, U., Gutierrez Dona, B., Sud, S. & Schwarzer (2002). Is general self-efficacy a universal construct? *European Journal of Psychological Assessment, 18*(3), 242-251.

Weiner, J.M., Hanley, R.J., Clark, R. & Van Nostrand, J.F. (1990). Measuring the activities of daily living: Comparisons across national surveys. *Journal of Gerontology, 45*(6), S229-237.

Week 7:
This week you will learn about some of the issues related to caregiving of older adults.

Cavanaugh, J.C. (1998). Caregiving to adults: A life event challenge. In I.H. Nordhus, G.R. VandenBos, S. Berg, & P. Fromholt, *Clinical Geropsychology* (pp. 131-136). DC: APA.

Week 8:
This week you look at research on gerontology, health and illness

Jenson, L.A. & Allen, M.N. (1994). A synthesis of qualitative research on wellness-illness. *Qualitative Health Research, 4*, 349

Whitbourne, S.K. (1998). Physical changes in the aging individual: Clinical implications. In I.H. Nordhus, G.R. VandenBos, S. Berg, & P. Fromholt, *Clinical Geropsychology* (pp. 79-108). DC: APA.

Week 9:
This week you will explore a review article

Baltes, P.B. & Smith, J. (2003). New frontiers in the future of aging: From successful aging of the young old to the dilemmas of the fourth age. *Gerontology, 49*, 123-135.

Week 10:
This week you are to find an article on the oldest old that relates in some way to our study. Write a brief summary in your discussion and offer your opinion, based on the info you have learned this quarter. Attach the article to your post.

Week 11:
This week you are to find an article on the oldest old that relates in some way to our study. Write a brief summary in your discussion and offer your opinion, based on the info you have learned this quarter. Attach the article to your post.

Required Activities
There are a number of activities that you will be required to participate in. They are listed below.

Week 1: Carefully read the info sent to you concerning contacting facilities. Practice the script on several people. Report back on how you are feeling about it.

Week 2:
Contact a nursing home and assisted living in your area and discuss project with director (materials). Post flyer in senior center.

Research mandated reporter laws for your state.
Conference Call between all members of the course and instructors.

Week 3: Each student will interview a friend, tiy will need to submit the audiotape, an evaluation and paperwork to the instructor by email.

Week 4: Discussion of all problem areas online in class, student will interview an elderly friend or relative for one hour, you will be assigned which day of interviewing you are to do, audiotaping it and submit all materials for review by email to the instructors by end of week 5.

Conference Call between all members of the course and instructors. A practice interview will be done between the Co-PIs on a conference call with the students listening; the students will then complete all paperwork and submit it for review by email.

Week 5-12: Discussion of problem areas and approval to begin official interviews. **Do not begin interviews until you have been given official approval.** Begin interviews (each student will complete 6 3-hour interviews of individuals over 85). Weekly readings and discussion on gerontology and methodology. All interviews will be recorded and the recordings and paperwork will be forwarded to the instructor as designated.

Week 11: Conference Call between all members of the course and instructors.

Week 12: Final impressions on research experience and report of what you have completed this quarter