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Incorporating Computer-Based Learning Into Preservice Education Courses

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Most teachers graduate from teacher education institutions with limited knowledge of the ways technology can be used in their professional practice (Wetzel & Chisholm, 1996). Few preservice teachers have any instruction in actually using technology in the classroom (Vagle, 1995), and yet, being able to effectively apply technology is high on the list of what beginning teachers should know and be able to do in today's classroom (Kortecamp & Croninger, 1995). Transferring technology skills from teacher preparation to classroom practice has been limited and has been identified as the "weakest link of most educational programs" (Browne & Ritchie, 1991, p. 28). Integrating technology in teacher education programs is a necessity so preservice teachers are able to see the importance of developing and using computer-based lessons in their own teaching (Wiburg, 1991).

Including technology modeling in field experience is one possibility for helping preservice teachers to see the importance of integrating technology into their teaching (Hunt, 1995; McGraw & Meyer, 1995). However, studies have found that student teachers tend to make limited use of computers in their school-based practicum experiences (Robinson, 1995; Sunal, Smith, Sunay, & Britt, 1998). Another possibility is through the course work that preservice teachers take as a part of their teacher education programs. Most teacher education programs offer a course or two focused on learning to use computer-based tools (Drazdowski, 1993; Greene, Robbins, Riley, & Barnes, 1995; White, 1995). However, these computer courses are not always effective in preparing preservice teachers to use computers in their teaching

for a number of reasons. Students enter teacher education programs with different computer backgrounds and attitudes and yet these differences are rarely acknowledged in these computer courses. As well, because the focus of these courses tends to be quite narrow, preservice teachers do not learn enough about computers to be able to integrate them into their own classrooms (Vagle, 1995). Furthermore, preservice teachers learn to use the computer in isolation from classroom practice (Howard & Howard, 1993). They are left to figure out how to integrate their knowledge of technology with the methods for teaching the various subject areas on their own (Rose & Winterfeldt, 1998). Even though much of the computer use in schools is subject-area specific, preservice teachers are not being provided with specific models for instructional use in those subject areas (Reed, Ervin, & Oughton, 1995; Wetzel & Chisholm, 1996).

While teacher educators are beginning to use technology in their teaching, this is occurring far too slowly (Barron & Goldman, 1994; Maddux, Johnson & Harlow, 1995) resulting in "spotty inclusion" (Marx, 1995). Teacher educators must be prepared to integrate computers into their courses in all subject areas in order to model the appropriate use of computers throughout the curriculum (Drazdowski, 1993; Greene et al., 1995; Ouyang, 1995; Overbaugh & Reed, 1994/95; Reed, Ervin & Oughton, 1995; Vagle, 1995). All teacher educators need to figure out how to teach so that their students will be able to integrate computer technology into their own classrooms.

This article reports on my experiences as a teacher educator with trying to integrate the use of computer technologies into teaching of a preservice social studies curriculum and instruction course.

DESCRIPTION OF THE SOCIAL STUDIES CURRICULUM AND INSTRUCTION COURSE

I have been teaching an elementary social studies curriculum and instruction course (EDEL 435) to undergraduate education students for the past 12 years. This course is a required course for students majoring in elementary social studies. Two central goals of the course have been to assist preservice students in setting their own personal teaching goals and to prepare them to make sound decisions about how and what to teach in social studies. (A prerequisite social studies course focuses on learning about the provincial social studies curriculum requirements and the intricacies of lesson and unit

planning.)

Until recently, this course was taught through a school partnership that engaged the students directly with small groups of elementary children and their teachers as they experienced social studies. Over time, these school-based experiences became increasingly more complicated to arrange with the complexity of the students' programs and the limited flexibility in timetable scheduling both at the university and the school. As well, the last live school-based partnership that had been arranged raised another important issue. The students began to complain about the differences in the types of experiences they were being exposed to in their respective elementary classrooms. At that point, I began to realize just how little control I had over what the students engaged in while working in the various teachers' classrooms. Barron and Goldman (1994) concurred that "when preservice teachers observe in real classes the teacher education program often has no control over the type of teaching they see" (p. 99). Furthermore, they found that "when [preservice] teachers observe real classes, they misinterpret or fail to notice many of the features and clues experienced teachers use to make sense of the classroom environment" (Barron & Goldman, 1994, p. 98). Both this lack of control and the lack of sufficient time to provide for maximum learning in the school were catalysts for the interest in designing some form of virtual school-based experience as a component of the undergraduate curriculum and instruction course. According to Ephratt (1995), the "computer is better than the real life situation because [with the aid of the computer] the situation is controlled, [and the instructor] can isolate and control one separate situation at a time" (p. 110).

WHY A VIRTUAL FIELD TRIP?

To most authentically capture the real-life experience of the school visits, I decided to create a virtual field trip to the school where I had previously conducted the live visits. Through the use of WebCT™ software and interactive multimedia combinations of video, text, sound, and computer graphics, the virtual field trip was designed to allow the students to experience teachers talking about and demonstrating their practice and children sharing their experiences and their understandings about social studies. It also would provide web-links to useful social studies sites for teaching ideas, materials, resources, and curriculum documents, as well as opportunities to discuss issues related to the teaching of social studies with experts in the

field of social studies across the country. Additionally, the computer conferencing tool in WebCT™ would allow the students opportunities to interact with and learn from others via electronic means. The virtual field trip would also provide greater flexibility for students by making the site's learning resources available outside of class time and from diverse locations.

I also believed that using the virtual field trip to teach the curriculum and instruction course would help to enhance students' confidence and competence in using and applying computer technology to the teaching and learning of social studies. This was important because a government-initiated curriculum directed at technology integration in schools had recently been mandated for teachers (Alberta Learning, 2000). Students needed to be better prepared to implement computer technologies into their teaching to address the technology learning outcomes articulated in this document. I was hoping to contribute to my students' knowledge of, and skill with, computers and assist them in understanding how to use computers to enhance their teaching of social studies both through the use of the virtual field trip and by having them create social studies specific, computer-based projects.

HOW WAS THE VIRTUAL FIELD TRIP DESIGNED?

The approach to the design of the virtual field trip was based on a vision of learners as constructors of their own meaning (Brooks & Brooks, 1993). Cameron White (1995) stated, "A constructivist, process orientation to teacher education is essential if we are to encourage students to develop problem solving and critical thinking skills and to apply, analyze, synthesize and evaluate knowledge, skills and attitudes" (p. 290). David Jonassen (1996), an expert in the area of constructivist uses of computer technologies, argued that such uses of technology require learning opportunities based on authentic tasks and environments and must include opportunities for exploring and doing, as well as for feedback and reflection. I felt that using the technology in this way would support meaningful learning with technology for the students by making use of the cognitive tools that I wanted to encourage them to use with their future students.

Because the constructivist orientation holds that adult learners need opportunities to learn from real-life authentic problems and practice, I wanted my students to be able to see teachers and children in action and to listen to

them talk abut their experiences as they worked with social studies (Brooks & Brooks, 1993). Consequently, in the virtual field trip, videoclips of teachers and children in their classrooms engaging in social studies were included, as were samples of lesson, unit, and yearly plans; school newsletters and assessment rubrics; and audio clips of one-on-one interviews with children, teachers and the principal. Second, because adult learners learn from opportunities to reflect, there needed to be built-in checkpoints to engage participants in reflection. Third, because adult learners make meaning through collaboration, I wanted my students to become a community of learners in which they interacted regularly, both in person and virtually, with me, with their peers, and with outside experts in the field of social studies. Both through e-mail and computer-based conferencing the students would have the opportunity to converse with others and with me outside of class time. Weekly face-to-face seminars would be used to supplement the virtual conversations and to debrief the virtual field trip experiences.

The course content was organized around authentic problems related to teaching practice. Using significant questions or problems as organizers can assist in the development of higher order thinking skills and interpretive learning experiences (Koschmann, Kelson, Feltovich, & Barrows, 1996; Parmley, Hutchinson, Hower, Morris, & Parmley, 1995). As well, introducing problems for student investigation using computer technologies can be effective for "allowing students to experience a shared context in which they engage in sustained thinking about complex problems" (Barron & Goldman, 1994, p. 84). The five key problems used to organize the content of the virtual field trip and the course in general were (a) why is social studies taught in elementary schools, (b) how do you choose content and plan for instruction in social studies, (c) what resources are available to support your teaching of social studies, (d) what approaches to social studies teaching would best help you to meet your goals, and, (e) how do you assess children's learning in social studies? These questions were typical of those generated by my students at the beginning of previous versions of the course when they were asked what they felt they needed to know about teaching social studies. To enhance their understanding of the problem as it applies to their own teaching, students were encouraged to examine each of the five problems through a number of different lenses. Included in these lenses were the views of teachers, children, curriculum, other student teachers (peers), and social studies experts. A sampler of the virtual field trip may be viewed at http://www.atl.ualberta.ca/project/hatsoff.cfm under Faculty of Education Instruction in Elementary Social Studies. Click on Course

Content on the virtual field trip homepage to examine Problem 2.

The curriculum and instruction course was taught over 13 weeks and the class met bi-weekly for 80 minutes each time. Each of the five problems was examined individually for a two-week period. A similar pattern was followed to examine each of the five key problems. One class each week was spent in the computer lab working with the virtual field trip website; the other class was held in a regular classroom that was more conducive to discussion. After investigating the problem in the lab using the virtual field trip, my students and I discussed their findings in small group and large group sessions in the classroom. During this time, students shared their interpretations of what they saw and heard through the five lenses. Selected readings related to the problem under investigation were also discussed. As a culmination to the two-week study of the problem, students wrote a reflective paper on the ways in which their thinking about the particular problem had been clarified or changed as a result of their web and seminar experiences. I was looking for sound understanding of the issues raised in the readings and the in-class and virtual experiences and evidence that the students were thinking about the implications of their learning for their future social studies teaching.

A final assignment for the course offered interested students the opportunity to design a learner-centered, computer-based project that supported constructivist learning theory and was specific to a particular grade and social studies topic from the curriculum. Students had a variety of format possibilities. Some of the choices included a Hyperstudio multimedia project, an Internet-based topic hotlist, a web quest, a web activity page, a virtual field trip, an Internet treasure hunt, or an idea of the student's choosing. These projects could either be something they would have their future students design as a way of representing their learning for a particular topic of study or something they might use themselves as an instructional tool. The majority of the students had limited computer skills and tended to be very anxious about having to use computers generally. They were encouraged to work in pairs or small groups in order to capitalize on each other's computer experience. A lab assistant offered further assistance and extra lab time was booked outside of class time to allow students to practice newly acquired skills. Weblinks to tool training sites were provided for the students to do some learning on their own about the particular web format they chose for their project.

HOW AND OVER WHAT PERIOD WERE THE RESULTS ASSESSED?

In the Fall of 1999, a independent researcher was contracted to conduct and study students' experiences in the curriculum and instruction course with a focus on the virtual field trip. The purpose of the study was to document students' learnings about teaching social studies and about integrating computers into their teaching from their experiences in the virtual environment. Upon obtaining students' written consent to collect data, the researcher designed, conducted, and analyzed the results of an initial and exiting questionnaire. The initial questionnaire was administered on the first day of class (n=18) and contained a series of open-ended questions (see Appendix A). This provided data related to the class participants' entering ideas on teaching and learning social studies. In addition, various questions probed students' views on the use of technology in their future classrooms.

During the last week of classes, a summative questionnaire was administered to the entire class (n=18). This final questionnaire contained questions related to the five central problems used as content organizers, as well as social studies pedagogical issues and technology issues (see Appendix B). The questionnaire responses were used to determine ways in which the students' ideas about teaching and learning social studies and the use of computers had been shaped or changed by their virtual field trip experiences.

WHAT EVIDENCE WAS THERE THAT STUDENTS LEARNED WHAT WAS INTENDED?

The findings from the initial and summative questionnaires have been presented here using selected questions specific to my course goals as stated earlier in the article. Questionnaire responses from the beginning and the end of the course have been compared, with a focus on growth and/or change in responses related to teaching and learning social studies and the use of computers as teaching and learning tools.

In response to the question, "How comfortable do you currently feel towards teaching social studies curricula?" the majority of students felt more comfortable towards teaching social studies curricula after taking this course. Prior to taking the course, the majority of students indicated that

their comfort level with teaching social studies varied from *not comfortable* at all to *somewhat comfortable* (see Table 1). Over half of the students increased their feelings of comfort towards teaching social studies compared to the initial questionnaire response. No students decreased their comfort and some students experienced no change in their level of comfort.

Table 1

Growth and/or Change in Students' Thinking About Teaching and Learning Social Studies

How comfortable do you currently feel towards teaching social studies curricula?	**Initial Questionnaire *N*=18**	**Summative Questionnaire *N*=18**
Very Comfortable	1	10
Comfortable	3	5
Somewhat Comfortable	9	3
Slightly Comfortable	3	0
Not Comfortable	2	0

The majority of students agreed that their expectations for this course were met. Many students felt they had gained new insights and ideas on how to teach social studies, as was evident in the following student comments, "I have a better understanding of the subject"; "I finally feel well equipped"; "The virtual field trip greatly helped and offered many resources and support"; "I'm more comfortable about teaching social studies, with more tools and more confidence"; "I have a better understanding of aspects of social studies;" "I feel better prepared and I have identified my goals as a teacher and know how to reach those goals;" "I learned new methods of teaching and lesson plan ideas;" "This course offered a lot of insight about issues that I wasn't in the mind set for before the course;" and, "I learned to look at specifics and a variety of ways to teach social studies."

At the end of the course, when asked to describe some effective ways for children to learn about social studies, the students were able to cite numerous ideas. Changes in student responses from the initial survey included more variety in the types of activities that could be used and a number of new strategies such as scavenger hunts, children's literature, and computer resources to use when teaching social studies. At the end of the course, the

students concurred that a student-centered, constructivist approach using authentic meaningful and collaborative experiences was an important aspect of effective teaching. Only two had indicated an interest in constructivism on the initial questionnaire.

When asked how comfortable they were feeling about using a computer at the beginning of the course, students varied in their feelings towards using the computer (see Table 2). Responses were equally distributed over a range from *not comfortable* to *very comfortable.* The majority anticipated that the computer component of the course would be very interesting and that they were excited and curious. One student expressed that she was "looking forward to the unique opportunity to learn via the web." A second student stated that "the computer component would be beneficial to learn now rather than with children." A third student wrote, "Computers are an essential resource." However, four students noted on the initial questionnaire that they were concerned about the computer component of the course. They felt "scared," "lost" and "nervous about the time needed to do the computer-based component," and about their "lack of computer knowledge and skill and the difficulty of using the technology." One student commented that "Computers are important but that there are many other tools and the course should not go overboard."

Table 2

Growth and/or Change in Students' Thinking about Computers and Their Use as Teaching and Learning Tools in Social Studies

How comfortable do you currently feel about using a computer?	**Initial Questionnaire *N*=18**	**Summative Questionnaire *N*=18**
Very Comfortable	2	5
Comfortable	3	9
Somewhat Comfortable	4	3
Slightly Comfortable	5	1
Not Comfortable	4	0

The majority of students stated that their attitudes towards using the computer changed from slightly to much better after taking this course. They were very positive about the use of computers in this course and agreed that

the computer skills they had developed would be useful to them. One student stated that she was surprised that a "computer program can be engaging and not simply text on a computer." Students were more comfortable and literate about using computers in their future classrooms. A number of students agreed that they would incorporate webpages into their classroom and would be able to search the Internet in more efficient ways. Students agreed that they were more confident in developing or creating activities on the computer such as a portfolio, a project, or a web treasure hunt. Students also grew to value the use of webpages, Internet-based scavenger hunts and simulations, computer software, e-mail contact with experts, and other activities that were both engaging and exciting as a result of their web-based experiences.

Students agreed that computer technology could positively influence the teaching of social studies. They felt that children enjoy working with computers because they are more involved and they enjoy "doing." Through the course experiences, students saw the possibilities that the Internet provided for "opening up opportunities and chances for personal learning," "more interactions," "ability to access a world of information without the library time," "interactivity," and "being a part of the global neighborhood." However, several pointed out, "We need to think abut why we are using the technology, and how it will benefit the students." A few students felt that the use of computer technology can negatively influence the teaching of social studies because "computers are depersonalizing teaching and the teacher's role is lessening," and "there is too much information that is noneducational."

On the summative questionnaire, students agreed that the five lenses included as a part of the virtual field trip website were helpful for learning and applying concepts and skills (see Table 3). The majority rated the experiences of listening to and watching teachers as most interesting. Some of their responses included: "It was great to hear from experienced teachers as they provided good insight," "It was most helpful to see teachers use different methods," "I enjoyed this lens the most to see teachers in action," "There were excellent opinions given," "(this lens) helped me to understand the issues," "I learned some really useful information such as year plans and lesson plan ideas," and "It was very informative, realistic, and direct."

Table 3

Rate the following lenses from the virtual field trip from most interesting (5) to least interesting (1) and explain why you chose this in the space provided (*N*=18)

	5 (most interesting)	4	3	2	1 (least interesting)
Teacher Lens	13	4	1	0	0
Expert Lens	1	1	0	11	5
Peer Lens	5	8	4	1	0
Student Lens	3	5	7	1	2
Curricular Lens	0	0	4	5	9

Students agreed that listening to their peer's ideas was also helpful as they could easily relate to what they were saying. They felt it was nice to hear from "people our age and what they've learned" as many students have or will complete their student teaching in the near future. Students' responses included, "It was good to see what my peers think and get ideas from them," "I could relate to their learning and insights," "It was useful input, ideas, and experiences," "It was reassuring because it showed our peers learning and making mistakes," and "They have the same concerns as I do."

Students also agreed that it was interesting to hear the children's ideas and points of view as well. One student stated that the lens "showed that the children are learning out there." Others stated, "I got good ideas to think about when planning," "It is nice to see what children know and remember about social studies," "I appreciated what was actually happening for them," "It helped to see their the children's thoughts and what they were doing," and "It was realistic and sometimes profound."

The least helpful lenses were the expert lens and the curricular lens. The main problem with the expert lens was the lack of timely and reliable response by the experts to the students' e-mail inquiries. When the experts did respond, the students were often already on to a new problem in the course. However, some of the students did enjoy the experts' responses: "The experts' responses were very interesting and informative when they replied," and "It was helpful when we got advice." The majority of students also agreed that the curricular documents accessed through the curricular lens

were "redundant" and "time consuming." A number of students expressed the following negative comments about the curricular lens: "I'd rather have the document in paper," "It's necessary but not particularly engaging after seeing it once," "It was hard to find the desired information," and "Too tough to read." Several students did respond positively to the opportunity "to compare curriculum across the country."

DISCUSSION

Student feedback from the initial and summative questionnaires suggests that the course goals were achieved and that the web-based experiences were important to that success. Generally, the students liked the hands-on learning that the computer component offered. Requiring them to be actively involved on a regular basis with the computer as a component of the course experience resulted in a general decrease in technology anxiety and an increase in confidence with the computers. The students were also better able to envision how to apply and integrate technology in their teaching and were motivated to develop technology-based projects for use in their future classrooms. This addresses the concern in the research literature about preservice teachers not learning enough about how to integrate technology into the various subject areas (Rose & Winterfeldt, 1998; Vagle, 1995). The students also developed a more realistic understanding of the challenges that a teacher faces when using technological tools such as the Internet.

As suggested by Barron and Goldman (1994), Koschmann et al. (1996), and Parmley et al. (1995), using a problem-based approach to the course content set within a "real" school context and providing a variety of lenses to investigate those problems gave the students a meaningful, authentic and relevant learning experience. The multiple perspectives were appreciated as they helped students to gain insights about teaching and children as well as allowing them to pick up teaching, resource and organizational ideas. In this way, the students were offered an opportunity to link the theories they were hearing about in their university courses to the statements made by the children, teachers, and experts in the field. Barron and Goldman (1994) argued also that just exposing students to technology is not sufficient, as they need computer experiences that help them to rethink traditional instruction. The virtual field trip provided exposure to such nontraditional constructivist-based approaches to teaching and learning.

Students' responses in their reflective papers supported the findings of the study. The following student comments from their reflective papers demonstrated growth and/or change in their thinking about teaching and learning social studies as a result of the virtual experiences:

> In the last few weeks I've heard students, peers, teachers, and experts speak through the virtual field trip. Now I am able to see which views will impact me the most when deciding on the importance of teaching this subject in the school. These views are influential because they set the stage for planning my social studies program. This also sets the stage on how I am going to convey the importance of this subject to my students.
>
> I find that looking at other teachers' organization methods on the virtual field trip really helps me to create my own technique. It helps build a foundation to how I desire to prepare and teach social studies.
>
> I have enjoyed the section of the field trip on social studies resources because I was able to see with my eyes what is out there. I have never realized the amount of support material that is there for teachers and students to use.
>
> From the virtual field trip, I have learned about the need for an issues-based approach to teaching social studies that looks at multiple perspectives.
>
> The 5 questions posed on the virtual field trip gave me a lot of insight in to how to teach social studies in a way that will keep the students' attention.

The students' reflective papers also demonstrated growth and/or change in their thinking about the use of technology in their future social studies teaching. Here are some of their comments:

> I feel I have a better grasp and have gained more confidence in learning how to use web documents.
>
> The virtual field trip has given me so much insight, and useful information but even more so confidence in using computers in social studies. I have learned how to create a website!! J Also I have learned how to incorporate computers into the social studies curriculum.
> My eyes have been opened and my fears relieved when dealing with computers.

> I have learned how to make social studies more exciting both for my students and for myself in particular through things like webquests, virtual field trips, scavenger hunts on the computer and Hyperstudio projects.

Reflecting on the results of this study and on the students' comments from their synthesis papers has helped me identify those aspects of the course and the virtual experiences that are working well for the students and to recognize the areas that are in need of change. In response to the concerns about the expert lens, I have now posted excerpts from the experts' e-mails that all of the students can access when they are needed. The focus on the entire curriculum documents in the curricular lens is also under review. I have also built in a discussion forum in which some of the benefits and drawbacks of using computers in teaching is examined to address the concerns expressed by some students about the misuse of computer technologies in teaching.

CLOSING REMARKS

This journey into the world of virtual learning has been a very interesting and challenging one for me. A great deal has been learned but there is still a long way to go before I will truly feel confident in using this approach to teaching. It is believed, however, that it does have the potential to add a great deal to the delivery of the course and to the students' learning.

As the demand for technologically literate teachers increases, so does the responsibility of teacher educators to prepare future teachers to meet these demands. "Preservice teachers need to perceive computers as integral parts of the instructional strategies and professional activities of teachers and become committed to their use" (Woodrow, 1993, p. 373). It is believed that it is only through students' repeated experience with computers and through regular instructor modeling of the integration of computers that this commitment to the effective use of computers will take hold. "If you are a teachers educator, you can not afford to leave it [the integration of computers] to the professor who teaches a class on technology" (Leu, 2000, p. 425). Teacher educators in all subject areas must be prepared to integrate computers into their courses to model the appropriate use of computers in the curriculum.

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Appendix A

EDEL 435 Initial Survey

This survey is designed to provide us with information regarding course content and the pilot evaluation for the virtual field trip component of EDEL 435. The focus of this survey is on computer use and its role in the success of this course. The information collected will be used to make modifications and improvements to the program in the future. All of the information collected will remain completely anonymous. Please do not write your name anywhere on this survey. The survey should take only a few minutes to complete. Use the back of the sheet, should you need additional space.

Part I - Social Studies Content

1) How comfortable do you currently feel towards teaching social studies curricula? (circle one)

(a) Very Comfortable
(b) Comfortable
(c) Somewhat Comfortable
(d) Slightly Comfortable
(e) Not Comfortable

2) Describe some effective ways for children to learn about social studies:

3) What kind of social studies teacher do you want to be in the future?

4) If you were asked to explain to a class of children what social studies is, what would you say?

Part II - Demographic Information

1) I am: (a) female (b) male

2) My age is: (a) under 20 (b) 20-24 (c) 25-40 (d) over 40

3) This is my _____ year at the University of Alberta.

Part III - Technology Component

1) Do you own a personal computer? (circle one)
(a) yes (b) no (c) I borrow as needed

If you answered "no" to question number one please proceed to question number five.

2) What type of personal computer? (circle one)
(a) PC (DOS)
(b) Macintosh

3) Has your personal computer been purchased **new** within the last two years? (circle one)
(a) yes
(b) no
(c) not sure

4) What kind of Internet connection do you currently use? (circle one)
(a) University dial-up
(b) Cable modem
(c) Other _____

5) How frequently have you used a computer for the following? (circle one number for each)

	Not Frequently	Monthly	Weekly	Daily
a) Word Processing	1	2	3	4
b) WWW or Internet	1	2	3	4
c) E-mail	1	2	3	4
d) Games	1	2	3	4
e) Educational Software.....	1	2	3	4
f) Other (please specify).....	1	2	3	4

6) Have you previously used the computer as a required course component? (circle one)

(a) yes
(b) no
If yes, in what course(s)?_____

7) How comfortable do you currently feel about using a computer? (circle one)

(a) Very Comfortable
(b) Comfortable
(c) Somewhat Comfortable
(d) Slightly Comfortable
(e) Not Comfortable

8) How interesting do you think you will find the computer component of this course? (circle one)

(a) Very Interesting
(b) Interesting
(c) Somewhat Interesting
(d) Slightly Interesting
(e) Not Interesting
Comments :

9) Briefly describe how computer technology can positively or negatively influence the teaching of social studies:

Thank you very much for your cooperation!

Appendix B

EDEL 435 Summative Survey

This survey is designed to provide us with information regarding course content and the pilot evaluation for the virtual field trip component of EDEL 435. The focus of this survey is on computer use and its role in the success of this course. The information collected will be used to make modifications and improvements to the program in the future. All of the information collected will remain completely anonymous. Please do not write your name anywhere on this survey. The survey should take only a few minutes to complete. Use the back of the sheet, should you need additional space.

Part I - Social Studies Course Content

1) How comfortable do you currently feel towards teaching social studies curricula? (circle one)
   (a) Very Comfortable
   (b) Comfortable
   (c) Somewhat Comfortable
   (d) Slightly Comfortable
   (e) Not Comfortable

2) Describe some effective ways for children to learn about social studies:

3) How did you find the workload of the EDEL 435 course? (circle one)

1	2	3	4	5
Very light	Somewhat light	Average	Somewhat heavy	Heavy

4) How did you find the time period you had to complete the course material? (circle one)

1	2	3	4	5
Very short	Somewhat short	Average	Somewhat long	Long

5) If you were asked to explain to a class of children what social studies is, what would you say?

6) Rate the following out of three from highest (3) to lowest (1) based upon your learning experiences from these components of the course. Please comment why in the space provided:

_____ (a) Learnings through the text readings
_____ (b) Learnings through the traditional classroom experience
_____ (c) Learnings through the virtual field trip computer lab experiences

7) Were your expectations for this course, that was designed to prepare you to teach social studies for the elementary classroom met? Explain.

Part III - Technology Component

1) What is your opinion of the Virtual Field Trip for learning and applying concepts and skills?
(circle one)

1	2	3	4	5
Not helpful	Slightly helpful	Somewhat helpful	Helpful	Very Helpful

2) What are your current feelings towards using the Virtual Field Trip format as a course component? (circle one)

1	2	3	4	5
Prefer traditional format	Somewhat prefer traditional format	No preference	Somewhat prefer new format	Prefer new format

3) How did you find your experience when getting the necessary help and assistance on using the Virtual Field Trip? (circle one)

1	2	3	4	5
Very easy	Easy	Somewhat easy	Difficult	Very difficult

4) How interesting did you find the Virtual Field Trip component? (circle one)
(a) Very Interesting
(b) Interesting
(c) Somewhat Interesting
(d) Slightly Interesting
(e) Not at all interesting

5) Rate the following lenses from least interesting (1) to most interesting (5) and explain why you chose this in the space provided:
_____ (a) Teacher Lens _____
____ (b) Expert Lens _____
_____ (c) Peer Lens _____
_____ (d) Student Lens _____
_____ (e) Curricular Lens _____

6) Do you anticipate that the computer skills you have developed in this course would be useful to you in future work or related professional activities? Explain.

7) How comfortable do you currently feel about using a computer? (circle one)

(a) Very Comfortable
(b) Comfortable
(c) Somewhat Comfortable
(d) Slightly Comfortable
(e) Not Comfortable

8) Would you consider taking another course for credit this way?

(a) Yes
(b) No
(c) Not Sure

9) Have you had any problems understanding how to use the computer for this course?

Yes ....please explain?
No

10) How many days during this course would you estimate it took you to learn how to use the Virtual Field Trip program to a level where you felt comfortable?

11) Which option below best describes your preference for using or integrating this type of program within the general curriculum courses in the Elementary Education department?

(a) I think it should be widely used with most Elementary Education courses.
(b) I think it can be used with parts of some of the courses (where there is justification)
(c) I think it should be seldom used in only a few specified courses.
(d) I think it should never be used; there are better ways to do the same things.

12) How do you think your attitude has changed towards using the computer with instruction from the beginning of this course to now? (circle one)

(a) Much worse
(b) Slightly worse
(c) Not changed
(d) Slightly better
(e) Much better

13) Comments or suggestions you would make for improving this course and its delivery methods for future classes?

Thank you very much for your cooperation!