A Comparison of Online and Face-To-Face Instruction in an Undergraduate Foundations of American Education Course

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Abstract

This article examines the similarities and differences for one course, Foundations of American Education, when offered in traditional face-to-face and online formats. The data analysis used both qualitative and quantitative measures. Several conclusions were reached: (a) for the course to be effective, the time that must be allotted for online teaching will remain an issue that instructors may struggle with as the workload is significantly higher; (b) for students, a familiarity with their own learning styles and the desire and motivation to shoulder responsibility for online learning will be major factors in their success; (c) while the instructor can, and should, design and monitor the course to ensure that all students are kept on track and participating, student time management and organizational skills will remain of paramount importance; and (d) students with more proficient reading and writing skills will perform better in online classes. Suggestions for further research include focusing on whether or not certain types of courses are more appropriate for online instruction and developing a repertoire of instructional strategies to accommodate a range of learning styles.

As higher education faculty members find themselves under ever increasing pressures to offer courses online, it seems prudent to consider the similarities and differences in a course offered in the traditional face-to-face format and one offered fully or almost fully online. The pressure to integrate technology into college courses arises from many directions. Certainly the university, in a move to reach out to previously underserved populations, is pressuring faculty members to offer more online coursework. Additionally, the problems of space allocation do not exist for online courses, thereby freeing valuable classrooms for other courses. And in teacher education, standards (e.g., the *National Education Technology Standards for Teachers* [NETS-T], Goal 2 of the National Education Technology Plan, and state standards for technology skills required of instructional personnel) make it imperative that teacher educators search for appropriate means of integrating technology into classrooms. With virtual high schools being established in ever increasing numbers and with several states using courseware such as BlackBoard © for high school course delivery within and across counties, offering some teacher preparation courses online may become a necessity for preservice teacher preparation.

This article examines the similarities and differences for one course, Foundations of American Education, when offered in traditional face-to-face and online formats. The study examined multiple sections of the course as offered by the same instructor with similar enrollment ($n = 25$/section). Taking into account the factors required for successful online instruction (Chickering & Ehrmann, 2001; Chickering & Gamson, 1987; National Education Association [NEA], 2000; Pena, 2001; Schrum, 2000; University of Illinois Faculty Seminar, 1999), as well as those required for successful in-class instruction in terms of authentic learning and assessment (Newmann, 1997; Newmann et al., 1996; Newmann & Wehlage, 1993; Wiggins, 1996, 1998), how do student performance and course satisfaction (instructor and student) vary? The study used both qualitative and quantitative measures, including examination grades, quality of discussion (threaded and traditional), course evaluations, and direct and indirect communication with the instructor for analysis.

Literature Review

There are several studies available that seek to compare traditional and online courses (e.g., Imel, 1998; NEA, 2000; O'Malley, 1999; Paskey, 2001, Smith, Ferguson, & Caris, 2001). The results of these studies vary with the courses offered, the characteristics of the students enrolled (e.g., gender, age, learning style, and level of academic competence), and the instruction being offered. Thus, it appears that when the literature comparing online and traditional courses is reviewed, the researcher can make a case for either one or both being more or equally effective, depending on the variables used. Therefore, for this case study another framework for comparing the two instructional formats was clearly needed.

Chickering and Gamson's (1987) seminal work on the principles of good teaching practice has influenced web-based delivery systems, such as BlackBoard© or WebCt ©, in the design and philosophy of courses. After all, good teaching practice is good teaching practice whether the classroom is a physical one or an electronic one, a sentiment shared by officials of the NEA (2001), an agency in the process of researching online learning and developing a set of evaluative criteria. The seven principles of good teaching practice outlined by Chickering and Gamson (1987) included the following: (a) encourages contacts between students and faculty, (b) encourages cooperation among students, (c) encourages active learning, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning.

Even with the implementation of all of these principles, experts (Chickering & Ehrmann, 1996) claimed that neither technology nor faculty alone can transform learning in an electronic environment. Students must take action regarding their own learning and create opportunities to "search out additional resources or complementary experiences, establish their own study groups, or go to the professor for more substantial activities and feedback (Chickering & Ehrmann, 1996)." In other words, an online learning environment still requires a "learning community." Heretofore, the emphasis on successful online teaching has resided with the creator of the course and not with course participants. Chickering and Ehrmann's emphasis on student responsibility is an added dimension to the growing body of literature on cyber classrooms, albeit, their work addresses the physical classroom as well.

One recent report on the "Pedagogy of Online Teaching and Learning," by the faculty at the University of Illinois, supported a broad scope approach to online instruction, yet at the same time pointed out the importance of emotional interaction between teacher and student, as well as among students themselves, theoretically present in the traditional classroom. The absence of an emotional component in online courses is viewed by some as problematic, especially in terms of undergraduate education (University of Illinois Faculty Seminar, 1999), because the social dimension of undergraduate education is important. Gregory Farrington, president of Lehigh University, spoke to this issue when he stated,

> College is as much about learning to live as it is about learning from books....Late-night discussions are much of what college is about, and the role of the football team is truly important. It is hard to imagine distance education, however effective, being truly equivalent. (Farrington, 1999, as quoted in University of Illinois Faculty Seminar, 1999)

The theme, "there is no substitute for real classroom interaction," is a common one. Yet, as one "home study" professional pointed out, "When I was in school, you missed a couple of sentences of a professor's lecture and it was gone. Here, (online) you can review the lecture as many times as you want (Pena, 2001, p. 76)."

Can electronic classrooms or web-supported classrooms be equivalent in terms of effectiveness? Or can they be even more effective than the traditional face-to-face classroom? The answer may be that they have the potential to transform the way in which learners understand the course material and provide a social component often missed in the traditional classroom—the willingness of and the necessity for shy or introverted students to participate in classroom discussion. Additionally, students have more time to respond to discussion questions than when they are face-to-face in a time-designated classroom. The ability of the electronic classroom to deliver instruction in a 24/7 format means that learning is no longer confined to exact periods (Schrum, 2000). Students can access courses whenever they have a question or can interact with classmates whenever they choose.

Thus, despite the difficulties inherent in online or online assisted classes, a major advantage virtual learning provides is the ability to "independently store data collected through interaction with the student, thus providing the possibility for following student moves as a source of data and later providing feedback to them (p. 43)." Two instructional benefits are apparent and include (a) learner interaction with concepts can be stored and retrieved for later analysis, and (b) the immediate feedback the learner receives allows a greater degree of learner control by providing individualized opportunities for review (Hargis, 2001, p. 475-76; see Galagan, 2000, pp. 24-31, for a discussion on learning and Hicks, 2000, p. 75). These web interactions and the ability of the teacher to retrieve and

later analyze them and then return to the student with questions or statements are invaluable to the learning process. Often teachable moments go untaught or certainly never revisited; yet, through this storage capacity, remarks made by students online are preserved and can be used to extend learning.

Not surprisingly, Bill Gates has remarked that the school of the future will not be one that relies on paper and pencil, but rather on collaboration and web-based curriculum (Robbins, 2001). Even the way the achievement of students is assessed is changing, owing to web-enhanced or online instruction. Today's assessment tools include production rather than paper and pencil tests that seek to measure students' cognitive understanding (Carnevale, 2001, p. A43-6; also, see the WebQuest homepage at http://webquest.sdsu.edu/webquest.html). One researcher points out however, that educators must move with caution and not simply embrace technology for technology's sake (Leydon, 2001).

Any effective learning strategy should bridge the gap between what we know about student learning and what we must do as teachers. McDonald (2001) discussed five common characteristics of effective learning strategy for online learning:

1. Openness in the Education Process – choice and negotiation within the course, self-and peer-assessment, and tutor-learner relationships. This process should seek to engage learners fully as both participants and contributors to the learning process.
2. Learning to Learn – student construction of knowledge. Self-awareness of the knowledge construction process is the ultimate goal. Promoting and developing the higher order cognitive skills of articulation, reflection, analysis, synthesis, problem-solving, and evaluation support the development of these skills and should provide a focus for the design of learning activities.
3. Prior Knowledge and Experience – existing knowledge and personal conceptions are the starting point for discussion, clarification, and planning of learning.
4. Problem/Action-Based Learning – use problems as the stimulus and focus for student activity.
5. A Sense of Community – provide learning activities that encourage cooperation among group members as a means of creating a sense of community and promotion of learning as a social process (pp. 20-23).

These criteria are similar to those listed as necessary for authentic instruction.

Authentic instruction has been defined as achievement that is significant and meaningful based upon students constructing meaning and producing knowledge; using disciplined inquiry to construct meaning; and aiming their work toward production or performance that has value or meaning beyond success in school, that is, high grades (Newmann, 1991, 1997; Newmann et al., 1995, 1996; Newmann & Wehlage, 1993; Wiggins, 1990, 1996, 1998, 1999). Thus, these goals are congruent with the already discussed criteria necessary to design successful activities that served as the base for either traditional or virtual classroom instruction in the course.

The Case Study

James Madison University (JMU) is a traditional state college campus. Set in the heart of the Shenandoah Valley in Virginia, JMU is located in the small city of Harrisonburg surrounded by mountains with rural farms and ski areas sprinkled around the valley. Students tend to be traditional age 18-22, overwhelmingly white, middle to upper middle

class, conservative, and Christian. Most JMU courses have a fairly even distribution of population from across Virginia, with about one third of the total campus population of 15,000 coming from northern Virginia and neighboring states, although there are students from other states and nations present on campus. While our teacher education programs do attract some post-baccalaureate and re-entry students, of 45 Foundations of Education students in the spring 2002 semester, one was an older, re-entry female, two were Asian American, and 12 were male. In the fall 2002 semester, just one was African American, and only six were male. In spring 2003, out of 31 students, there was one older, re-entry female and there were six males. These examples are normal distributions for this course throughout the past 5 years at the university. The Foundations of American Education courses are overwhelmingly female and nondiverse.

The course is a traditional Foundations of American Education [EDUC 360] required by all students who wish to pursue teacher education licensure. This is the entry-level course for all teacher education programs offered by the College of Education. The course is offered in multiple sections every semester, enrollment is theoretically limited to 25 students, and it is taught by both full-time and adjunct faculty in a variety of formats: three times/week; twice/week; one 3-hour block; and one double section run entirely as lecture. The full-time faculty met as a committee in 1998 to adjust the uniform statement for the purpose of the course (goals) and a common set of objectives that could be expanded by individual instructors.

The courseware package provided to JMU faculty and students is BlackBoard©. The courseware is relatively easy to use and is being widely introduced on campus. For example, all teacher education faculty members were required to have course syllabi electronically posted using BlackBoard© by spring 2002. The faculty training for the courseware was completed in less than 1 day. Students receive online tutorial or help from their instructors in learning to use the courseware. Few faculty members are teaching courses completely online, especially at the undergraduate level, but many faculty members for several years have been using web-based instruction integrated into their courses.

The Face-to-Face Course

In the sections of EDUC 360 described in this case study, I have been integrating BlackBoard© into the traditional course over the past several years in the following ways: (a) posting the syllabus electronically and requiring students to submit assignments (journals, biographical timelines, and personal practical theory papers) electronically; (b) allowing students to access PowerPoint slides that accompany lectures on history, philosophy, legal issues, and global education; (c) accessing grades in an electronic grade book; (d) posting discussion forums (for legal case research and discussion of two films shown in class); (e) having students check for class announcements; (f) communicating through e-mail with classmates and the instructor; and (g) allowing students to access Internet links placed in the courseware by the instructor, that provide supplementary information to accompany the chapters. However, the class continued to meet face-to-face twice each week utilizing a lecture/discussion format.

My teaching style is narrative, incorporating a significant number of "teacher stories" and personal anecdotes to illustrate course topics. Students are encouraged to ask questions and contribute their personal anecdotes and teacher stories throughout the class meetings. Attendance in class is expected and reflected in class participation, reinforcing the instructor's belief in active learning.

Student performance is assessed using two traditional multiple choice/essay exams; one take-home essay exam; weekly journals; participation in the three discussion forums; the short biographical timeline and personal practical theory papers; and the beginnings of a developmental portfolio in lieu of a final exam. In reviewing the test grades students achieved over several semesters, it is clear that students have been successful with the take-home exam and the essay questions on the traditional tests but have not done well on the multiple-choice questions. The essay questions were based on class discussion but the multiple-choice questions were selected from a test bank provided with the textbook resources. It is likely that students were not completing the assigned reading and were mistakenly relying on the instructor to teach them everything they needed to know while they passively absorbed it, despite instructor warning that the questions came from the textbook test bank.

The lack of student interaction with the textbook was problematic, as the book is both readable and informative. Further, the course should be inherently relevant to student interest in becoming a teacher and, therefore, it would be expected that students would read the assigned chapters or occasionally check the chapter links posted in the external links, chapter resources area of BlackBoard©. Additionally, although the chapters were discussed in class, it would be difficult for students to add meaningful participation if they had not completed the reading, as the specific information contained in the chapter was purposely not repeated by the instructor.

Course satisfaction as defined by student evaluations has been high, with the survey data ranging from 4.21 to 4.68 out of 5.0 over the past four semesters that the instructor taught the class face to face. Anecdotal comments generally relate to student discomfort with the narrative teaching style (20%), but that is countered by high student satisfaction with the narrative teaching style by the rest of the students who chose to answer open-ended questions. Other negatives have related to the large workload, with weekly journals being the most onerous task. On the other hand, many students reported that the journals were the most meaningful part of the course, as they learned how political and important education is to the American public.

The Biographical-Timeline and Personal Practical Theory assignments are also seen by students as quite meaningful and authentic. Lastly, students reported having learned a tremendous amount from the take-home test but felt that a traditional test would be less time consuming and "easier." Considering that they did not do well on the traditional tests, this is somewhat interesting.

The Online Course

In designing the online course, eight factors (Stern, 2003) were taken into consideration: (a) the loss of the instructor's narrative style of teaching; (b) the change in student work and study habits required in an electronic environment; (c) the need for the students to read the textbook thoroughly; (d) the instructor's desire to maintain course control despite the existence of the course cartridge (which supplies everything that might be desired by an instructor); (e) the necessity of creating a virtual community; (f) the desire to maintain the authentic learning and assessment criteria required by Newmann et al. (1996) that formed the core of course design for the face-to-face course; (g) technical concerns with both the courseware and student skills; and (h) concern for student success in an online format. Stern (2003) provides detail about each of these factors.

The appendix, Applying Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education to EDUC 360, Foundations of American Education, identifies ways these concerns were integrated into the requirements of the online course.

The authentic assignments were maintained, although based on student evaluations from fall 2002 (the first semester the course was put online), the number of journal assignments were halved for spring 2003. An additional change requires students to integrate not only chapter reading but also information from hyperlinks (provided either by the course cartridge or the course resources uploaded by the instructor) into their weekly threaded discussions.

The quantitative data on course satisfaction as defined by student evaluations is reported as follows: Fall 2002 (*n*=21) as 3.89 out of 5.0 and spring 2003 (*n*=28) as 4.10 out of 5.0. Although these scores are lower than the face-to-face scores, it should be noted that a faculty committee revised the evaluation instrument during the summer 2002, and the questions answered by the students in the previous four years (face-to-face) were not identical to the ones currently asked. The new questions place more stress on varied instructional strategies and student interaction in class. The phrasing of these questions is particularly unsuited for online courses (an issue that will need to be addressed by the faculty in coming year). When the students were informed in the second semester that the questions did not match the course format and they should answer appropriately to "the realm of the possible," the scores rose. Nonetheless, because of the unsuitability of the questions to course format, the qualitative data became more valid as a measurement of satisfaction with the online course format.

Two types of qualitative data were collected from students: (a) the open-ended questions from the university evaluation form, and (b) the e-mailed comments the instructor requested students to send to her for this project. In the e-mail evaluations, student comments on creating a virtual community include positives and negatives:

> I think that I did make personal connections online because I probably talked to people that I would not normally talk to in class. I think that it helped me voice my opinion more through writing. I think I have made several comments over the semester that I would not have made in class. I was able to sort out my opinions and state them in a more effective manner. My opinion was still heard but in a different way. In that way, the Internet is not taking away the personal connections that students make in classes. I don't think that all classes should be online by any means, but having one online has really been a learning experience for me. I like being pushed to take personal responsibility and I like the freedom that comes as the result of not having to meet in the actual classroom.

> I also agree that I'm kind of wishy-washy about this class being almost entirely online. While I understand more opinions and it's been very beneficial, I don't feel that if I was to run into another student from class that I would even recognize more than a few of them! So much for my personal skills . . .

This comment prompted me to post the digital pictures in the course information section of BlackBoard© at the beginning of the spring 2003 semester and to suggest that all students download a copy and look at their classmates while entering threaded discussion.

> It [the class] took a lot of work and discipline to enter the discussion boards each week, and to submit journals on time every Tuesday . . . I did not particularly enjoy this semester's online course, and would have much preferred to meet every Tu/Th in class. I enjoy the personal contact with the teachers and students in my classes, and think that the most effective way to learn is to be in class every class meeting. To learn online is to learn by yourself, and I don't feel like I gained as much from this class as I could have had we met each week. I like to see

everybody's faces, but I also like to sleep late every Tu/Th. Its a trade-off, but in the end I'd much rather be in class, getting to know everybody and see everybody's faces. And the person-to-person contact is lost it the mix. Kids shouldn't be asked to learn in this way, and it's a disservice to them to ask them to teach themselves the course work.

On technical skills:

> I look forward to using technology in my classroom because I want students to get the same experiences that I have. Some people learn more when they are forced to do it on their own. I think that I would have been fairly quiet in class instead of sitting here and saying what I really feel. I think some people need that. Like it or not, children are attracted to technology and the children we teach will not know the world without technology. We grew up at the beginning of the technology era but these kids are right in the middle of it. I think that we should encourage this growth in our society and use it to our best interests!

Surprisingly, the student who was negative about the impersonal nature of the course wrote:

> Of course I will use technology in my classroom, I only exaggerate about hating it. For cooperative learning, technology can be a very important tool. For instance, what we are doing now on BlackBoard© is very cool. We get to hear everybody's opinion instead of just those of the people who speak up in class; it's a very effective tool.

Thus, there is ambivalence among students about online courses.

What did students actually learn? They learned that personal learning styles make online classes problematic for certain types of learners.

> Generally, as a student, I am one of those kids who sit up front, talk a lot, and keep the conversation going when everyone else is packing up their stuff. I say hi to my teachers as I pass them, and I integrate things I've learned from other classes into current c lass discussions. My favorite part of going to class isn't the reading or the assignments, but is the time where my peers and I sit and discuss what we've learned. I listen, I talk, I try my hardest to see both sides of the issue. Mostly I am a visual learner, but much of what I remember and sticks with me comes from my auditory learning side. In taking an online class, I've learned that there are some learning styles that simply benefit more from a classroom experience. I am one of those styles. I would not say however, that the program is horrible, or that no student should take an online course.

> On one hand, I have enjoyed taking this online course, but on the other, I do not think it should be widely used in high schools. I have no problems with offering online courses at the high school level so long as there is still teacher and student interaction, but they should never take the place of in-school classes. There are just way too many valuable hidden curricula and social skills lessons to be learned inside schools to cut out that type of interaction.

On the positive side:

> I think that taking this class online has taught me a lot. At first when I heard it was online, all that meant to me was YEA, no class. This will be awesome. But this class turned out to be a lot more work than most of my other classes and I ended up devoting the same if not more time to this class each day as I would if I were in class. However it was really nice to be able to put in that time whenever it was most convenient for me, rather than a specific time each day. Another important thing this class taught me or further instilled in me was time management and organization. I had to remember each week, without hearing from a teacher that things were due, and I had to keep everything organized so I only had a certain amount to do at one time, and so that everything was done when it was due. I think overall this has been a very good experience for me

> I personally liked having this online class to some extent because it allowed me the free time to do my work whenever I had time. I didn't have to worry about going to class, I could just sit in front of my computer like I spend most of my time anyways doing my work for class . . . [student goes on to express concerns about other classmates with different learning styles.]

> I feel that the online class offers both benefits and downfalls. I'll be the first to admit, I really did enjoy doing this class on my own schedule—it was nice having a class I didn't have to attend. However, time-management was difficult at times. I also know that I wouldn't have read the chapters if they were written in a syllabus, but these responses required me to read and reflect on the chapters. It ended up being more work than I thought. I do like the social interaction that the classroom involves, it does help you get to know people and even recognize someone on campus. But then again, I am not outspoken and do not speak up in class, so I really wouldn't have had any input on any of the issues we've discussed through the discussion board. So, I'm not sure of my overall opinion on the way this class was set up...

> I am glad that I took this class online and was given a glimpse of what it is like to attend a virtual school. There are definitely pluses, including a required response by every student to every question, and the ability to work on my own schedule (not to mention hardly ever having to go to class!).

In reviewing the open-ended questions from the university evaluation form several patterns emerged. One, the instructor and the course workload were very demanding (see high expectations in appendix). As a result of the specific statements on these evaluations I reduced the journal requirements for the spring 2003 semester by 50%. Two, several students reported that this was the first time they had ever read an entire textbook throughout their school careers (K-14+). Most students reported positively to the question asking whether the instructor was available and focused on helping them to succeed. As this was a major concern in course design, I found this a positive comment. Although they did not come to class, students felt that I was concerned and indicated that I was helpful when they needed to access that help. Three, most students commented on the participation of the entire class in discussion and viewed that participation in a positive light. Finally, several students reported that the things they learned the most about in this course were organizational and time management skills. This was almost always a positive except for those students who reported that they still had further to go in mastering these skills.

Comparison of Online and Face-to-Face

What can be concluded from comparing the same course when delivered online and face to face? First, Applying Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education to EDUC 360, Foundations of American Education (see appendix), summarizes the principles for effective instruction at the undergraduate level for both course formats. The chart clearly indicates that while both formats are effective, the biggest differential is the student's learning style and ability to adjust to the electronic format. Online classes tend to favor students with highly developed literacy (reading and writing) skills. Students who are less strong in those areas or who are more social by nature have a difficult time adapting to the electronic format. On a positive note for online courses, shy and inhibited students or students who process material more slowly and so contribute less in traditional face-to-face discussion found the online format a place where they could blossom. They freely stated their opinions and they had the time, in an asynchronous format, to think through and to word their responses carefully. It also seems that the online format fostered more active learning on the part of the student than does traditional course delivery, even when the course integrated cooperative learning and discussion.

In terms of instructor satisfaction there are several considerations. For courses like EDUC 360 where class size hovers around 25 students per class, there is a lot of opportunity for professors to interact with and get to know students. The move to online has the potential to depersonalize the course. I worked hard to memorize pictures, learn student names, and utilize that knowledge during the four times the students were actually in class, as well as when students came to my office for help. Thus, through great effort, the students and I felt like we knew each other. In classes with small enrollments, the virtual classroom function could be used to increase synchronous contact.

The workload for an online class is far more intense than that for a face-to-face course. First, since time is not tied up by the constraint of particular assigned days and meeting times, students seem to expect the instructor to be available on all days and at all times. The demands of e-mail from students are considerable. This demand can be mitigated by explaining to students that time has been set aside by the instructor to address their concerns and sticking to that timetable. The literature reports that in addition to using the "allotted" class time (in this case, Tuesday and Thursday from 11:00-12:15) virtual office hours in the evening should be allotted for students who are unavailable during the "normal" workday. Since this class currently has an assigned room and meeting time and an enrollment of undergraduates, this has been less of a concern. However, as the course moves toward nontraditional populations, virtual office hours in the evening will probably be necessary.

A second time consideration is grading assignments. In a face-to-face class the discussions take place during class, but in the online version of the course the discussions are asynchronous. A class with 24 students is the maximum recommended for online courses. At that size, a threaded discussion in which all students participate a minimum of three times averages about 100 entries that must be read and assessed by the instructor. In this course, the initial entry was a response to instructor questions and was quite lengthy. This grading, coupled with weekly journal assignments, monitoring quiz grades, etc., is very time consuming. The second semester, due to budget cuts, there were 31 students in the online class (only 28 completed the quantitative evaluation), and managing all of the student input became difficult, as grading discussions is quite cumbersome. The average weekly discussion board had 150 messages. Reading, assessing, and responding to students takes significantly more time, as all students are participating rather than just the few who choose to speak up in class. The secretaries

were instructed not to issue overrides once 25 seats per section had been filled for the fall 2003 semester to deal with this problem. This will create difficulties for students until financial pressures on campus allow for more sections.

Third, when grading is coupled with the actual setup of the courseware, the checking of external links on a regular basis to ensure they still connect, uploading documents and assignments, etc., there is a significantly higher workload than in a face-to-face class. Thus, the belief that the switch to online teaching will save instructors time is incorrect.

Conclusion

When comparing the same course delivered online and face to face, several conclusions can be reached. One, for the course to be effective, the time that must be allotted for online teaching will remain an issue for an instructor, as the workload is significantly higher. For students, a familiarity with their own learning styles and the desire and motivation to shoulder responsibility for online learning will be major factors in their success. While the instructor can, and should, design and monitor the course to ensure that all students are kept on track and participating, student time management and organizational skills will remain paramount. Additionally, students with better reading and writing skills will do better in online classes. The literature continues to report that traditional students (age 18-24) believe they learn more in face-to-face courses but choose online courses for various personal reasons. In terms of learning, students who apply themselves diligently should be successful in either format if the course, online or face-to-face, is well designed. That conclusion presumes that the issues surrounding class size are under control and that the instructor has a course load that makes the intensity of the workload feasible.

Suggestions for further research include focusing on whether or not certain types of courses are more appropriate for online instruction. For example, there has been discussion in our program about the feasibility of teaching methods courses online. Foundations of American Education, as taught at JMU, is primarily a "theory" course. This leads me to question whether or not there is a substantive difference in these courses that renders one unsuitable for online learning. Second, my experience with EDUC 360 leads me to believe that 15 to 20 students would be the appropriate class size for most effective teaching and learning. Thus, research on ideal class size for online courses would also be helpful. Lastly, research on creating or accessing instructional strategies in electronic environments that accommodate a range of student learning styles would be beneficial in helping to ensure that all students can be successful in an electronic environment.

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Appendix
Applying Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education to EDUC 360, Foundations of American Education

	Face-To-Face Course	**Online Course**
Encourages contact between students and faculty	Biweekly class meetings based in discussion. Digital pictures help instructor learn students' names. E-mail communication with each student when grading journals and written assignments. Office hours. Instructor is available by e-mail and telephone outside of office hours.	Limited participation in threaded discussion by instructor. E-mail communication with each student when grading journals and written assignments. Actual and virtual office hours. Class meets four times during the semester. Instructor is available by e-mail and telephone outside of office hours.
Develops reciprocity and cooperation among students	Class discussion encouraged. Students work in pairs on take-home essay test. Electronic discussion forums (three).	Weekly threaded discussion with a requirement that every student post both an initial response to the chapter and answer at least two classmates. Students work in pairs on WebQuest project which functions as a test. "Help" forum where students are encouraged to solve problems together prior to contacting the instructor. "Introduction" forum where students learn about one another. Digital pictures posted to enable students to "see" the classmates in their virtual community. Suggestion that students view their movie assignment films in small groups using "email all users" function to

		announce movie, time, and place.
Encourages active learning	Class discussion. Take home test is an inquiry-based project. Biographical timelines and personal practical theory papers are constructivist projects. Weekly journal assignments ask students to integrate readings with new articles and personal experiences. Blackboard© course cartridge would be available but students would have less reason to utilize this material.	Threaded discussion with a requirement that students integrate textbook reading and chapter links with personal experiences. WebQuest assignment is an inquiry-based project. Biographical timelines and personal practical theory papers are constructivist projects. Six journal assignments ask students to integrate readings with new articles and personal experiences. The newest version of the textbook is accompanied by a BlackBoard© course cartridge containing chapter study guides, focus questions, quizzes, chapter hyperlinks, and interactive surveys for all students using the textbook (anywhere) who chose to participate. Weekly quizzes that accompany the chapter are taken open-book.
Gives prompt feedback	Feedback during class discussion. Journals graded weekly with each student receiving personal comments via e-mail prior to receiving numerical grade in electronic gradebook. E-mails that comment on student journal entries focus on the quality of the student responses in active, interpretive, and critical fields of reflection.	Limited feedback in threaded discussion. The desire is for this to be student run as much as possible. Six journals graded promptly with each student receiving personal comments via e-mail prior to receiving numerical grade in electronic gradebook. E-mails that comment on student journal entries focus on the quality of the student responses in active, interpretive, and critical fields of reflection.

Emphasizes time on task	Assignments are due promptly and students are contacted by e-mail when work is not uploaded in a timely manner.	Assignments are due promptly and students are contacted by e-mail when work is not uploaded in a timely manner.
	Instructor reserves the right to stop accepting late work from a student who is habitually late.	Instructor reserves the right to stop accepting late work from a student who is habitually late.
	Class discussion has a tendency to stray from the topic based on student questions.	Threaded discussions have focus questions written by the instructor for each chapter. This tends to keep all students focused on chapter material.
	Some students (approximately 20% according to course evaluations) do not like the instructor's narrative teaching style and would prefer lectures that reiterated textbook chapters.	Weekly quizzes due by 12:15 p.m. Tues. for each chapter encourage students to read the book (which students have reported doing due to lack of class meetings).
		Students are e-mailed if quiz grade has not posted by Tues. afternoon or if discussion forums are not posted in a timely manner.
Communicates high expectations	Syllabus and class discussion reinforces instructor expectations.	Syllabus and e-mails communicate instructor expectations. Students are reminded that this course is calculated to take the allotted 3 hours of class time plus assignment time on a weekly basis.
	E-mails that comment on student journal entries focus on the quality of the student responses in active, interpretive, and critical fields of reflection.	Instructor reserves the right to stop accepting late work from a student who is habitually late.
	Instructor reserves the right to stop accepting late work from a student who is habitually late.	Students meet as a class with the instructor four times across the semester and course requirements are discussed.
		E-mails that comment on student journal entries focus on the quality of the student

		responses in active, interpretive, and critical fields of reflection.
Respects diverse talents and ways of learning	Class discussions as well as cooperative learning, films, PowerPoint, and lecture attempt to meet all students' learning styles. Shy or inhibited students can "lurk" in class without participating but can still use body language displaying attentiveness. However, nobody knows what these students are thinking. Some students try to dominate class discussions despite instructional strategies implemented to involve as many students as possible.	Students with more developed reading and writing skills are more successful in online environments that rely heavily on these skills. This is weakness of online learning environments in general. No "lurkers" as all students must participate in discussion forums weekly with a minimum number of entries. Some students may dominate discussions but not all students will read every word those students write in the forums.