Effectiveness of Online Education in a High School Honors American Government Classroom

Lisa Yantes

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Effectiveness of Online Education in a High School Honors American Government Classroom

Abstract
The internet is a tool that many students use to do research in the classroom. Students are asked to use the internet for a variety of activities ranging from general searches for information to completing a course online. The effectiveness of online courses is of interest to many educators who want to know if this method is worth pursuing. Teachers are also interested in understanding student attitudes toward online education. This study examined the effectiveness of online learning as a teaching method in an Honors American Government class that was taught using Blackboard as the delivery system. The participants in this class were students who met the criteria for the Honors program at Hutchinson High School, a high school in southern Kansas. Test and essay results showed that there was no significant difference concerning effectiveness between online learning and traditional learning methods. Survey results showed that students in the experimental group were motivated to achieve in all their classes, believed that interpersonal communication was important and that they were comfortable using the computer. Students also believed that receiving timely feedback and being self-motivated were important to success in an online class.

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by

Lisa Yantes

B.A. Bethany College, 1995

Action Research Report
Submitted in Partial Fulfillment
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Department of Education
Dordt College
Sioux Center, Iowa
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Abstract

The internet is a tool that many students use to do research in the classroom. Students are asked to use the internet for a variety of activities ranging from general searches for information to completing a course online. The effectiveness of online courses is of interest to many educators who want to know if this method is worth pursuing. Teachers are also interested in understanding student attitudes toward online education. This study examined the effectiveness of online learning as a teaching method in an Honors American Government class that was taught using Blackboard as the delivery system.

The participants in this class were students who met the criteria for the Honors program at Hutchinson High School, a high school in southern Kansas. Test and essay results showed that there was no significant difference concerning effectiveness between online learning and traditional learning methods. Survey results showed that students in the experimental group were motivated to achieve in all their classes, believed that interpersonal communication was important and that they were comfortable using the computer. Students also believed that receiving timely feedback and being self-motivated were important to success in an online class.
Effectiveness of Online Instruction

Introduction

As most educators know, not all students are able to learn material in the same way. Some students learn better by hearing material, some by seeing, and many through a more interactive approach. One method of delivery that offers a non-traditional and interactive approach is online instruction. The way the internet is used in classrooms varies. Some teachers use it for answering research questions, others may use it for giving students a quiz or a test, and still others may use it to present material in a non-traditional format. For the purposes of this study online learning refers to a course of study taken completely online, using Blackboard as the delivery method.

Statement of the Problem

Because schools in rural areas are sometimes unable to provide a wide variety of courses for students, online classes have been created to fill in the gap and provide new learning opportunities. This study originally began because of the lack of Advanced Placement Government classes offered in the rural areas of South Central Kansas. Educational Services and Staff Development Association of Central Kansas asked me to develop such a curriculum, using Blackboard as the mode of delivery. After waiting two years to implement this curriculum, I decided to use the approach with students in my Honors American Government classes.

Research Questions

This study will examine the effectiveness of Blackboard, an online delivery system, and student perceptions of this type of instruction. The research questions for this study are as follows:
1. Is there a significant difference in content acquired between students learning material using online instructional methods (specifically Blackboard), and students learning under traditional methods?

2. What are the attitudes of students concerning learning style preferences, computer skills, and the various elements of the online delivery system?

Significance of the study

This study extends the research concerning the effectiveness of online education. One unique feature of this particular study is that it was used for all students enrolled on campus at Hutchinson High School. Attitudes of the experimental group were also examined in this study in order to understand student perception of the new instructional strategy. Students in the experimental group were initially asked questions about their motivation, study habits, and comfort level with technology. After the completion of the online instruction, students completed a survey that asked them about the effectiveness of individual components of the Blackboard delivery system. Students were also asked how motivation, study habits, and comfort level using technology affected their success in the unit of study. Content acquisition was also examined as a component of the study. Taken as a whole, these variables aim to answer the question of the effectiveness and attitudes towards online education as an instructional method in a high school Honors American Government course.

Definition of terms

This study examines the effectiveness of online learning. The terms listed below are defined as indicated.
Asynchronous Discussion/Communication refers to communication between course participants that can be accessed from any time and anywhere.

Online Education refers to formal education where the learner is separated by distance from the instructor and where interactive online delivery systems are used to connect the learner, instructor and instructional resources.

Threaded Discussion is an online discussion format that provides for a continuous string of student comments on a proposed subject.

Virtual Classroom Chat refers to an asynchronous discussion that provides students and the instructor the opportunity to respond immediately to questions and comments.

Tutorial is a PowerPoint slide presentation that replaces a traditional lecture.

Traditional method for teaching American Government refers to a method of instruction that uses a textbook and lectures given by the instructor as a foundation for learning. This method is teacher-driven. Assignments and classroom discussions are utilized in order to achieve unit objectives and goals and provide opportunity for further understanding of the text and other assigned readings. Although the teacher does most of the instructing in this format, students are also required to present findings of assigned research.

Content for the purposes of this paper refers to the subject matter for the course, in this case, American Government.

Organization of the Study

The purposes of this study were to examine the effectiveness of online education using the Blackboard delivery system and to examine student perceptions of the
significant issues concerning success of online courses. In order to fully investigate the effectiveness of this instructional strategy, the study focused on the content acquired by the students. This was measured by a content exam composed of multiple choice, true and false, short answer and essay questions pertaining to specific area of study given at the completion of the unit (Appendix A). Student perceptions were also considered in this study. They refer to the attitudes or feelings towards this delivery method. There were two instruments used to identify student perceptions. At the beginning of the study students completed a survey about their learning styles and computer skills, which was originally used by Mills (2002), and was modified by the author to fit the needs of the study (Appendix B). The second survey that was modeled after one used by Riffell and Sibley (2003), asked students to rate the traits necessary for success in an online course and then asked them to evaluate individual components of the online delivery system (Appendix C).

Summary

Online education is a field of education that has expanded in recent years and it is important that educators be aware of the issues relating to the effectiveness of this instructional technique. When a teacher chooses any new instructional strategy for classroom use they need to be aware of the advantages and disadvantages of the strategy, understand the elements of the strategy, and how the strategy will affect students.
Literature Review

In order to refine the scope of this study the following areas were the focus of the review of relevant literature: (1) underlying philosophy of online education (2) advantages and disadvantages of online education, (3) essential components of online delivery, and (4) student perceptions.

Underlying Philosophy of Online Education

Online education is constructivist in its approach to learning (Notar, Wilson, & Ross, 2002; Boettcher & Conrad, 1999). This philosophy holds true to several principles. First among those is that humans, who are the creators and processors of the educational experience, construct knowledge (Boettcher & Conrad, 1999). The constructivist philosophy also contends that knowledge is conjectural and fallible (J. Van Dyk, classroom lecture, July 24, 2000). This philosophy has several instructional implications:

…learners participate in setting their own objectives… The role of faculty as mentor, manager, and facilitator is dominant. The students focus on problem-based learning with help as needed…design for interaction between faculty and student, student and student, and student and learning resources. Design for student goal setting and decision making…make them responsible for learning a set of objectives and skills (Boettcher & Conrad, 1999, p.22).

Advantages and Disadvantages of Online Education

Every instructional strategy has its advantages and disadvantages and online education is no exception. The literature indicates that one of the benefits that it offers is flexibility both for the school and the student. Online education allows schools to offer
advanced courses to small numbers of students. It also provides freedom in scheduling because students may work on the course at any point in the day. Asynchronous communication allows the students to work when and where their schedule allows. It also offers home-schooled students the opportunity to take courses that parents cannot provide (Donlevy, 2003; Mills, 2002; Berman & Tinker, 1997).

Another benefit of online learning is that it provides both students and teachers a chance to sharpen important skills. With many online delivery systems, students face new and demanding communication avenues and are asked to demonstrate their research skills. Because of the freedom online education provides, students have the time to articulate in writing a deeper understanding of material instead of answering questions on the spot. (Donlevy, 2003; Berman & Tinker, 1997).

One of the most important advantages of online education is that it allows students to be in touch with a wider variety of people in all parts of the world by allowing them to explore real world problems and solutions. It allows students to:

…communicate with experts, politicians, scientists, businesspeople, and students and teachers in other parts of the country of the world. Students will also have access to millions of documents, databases, libraries, museums…(Zucker, Kozma, Yamall, Marder and Associates, 2003, cited in Donlevy, 2003)

Even though online instruction provides clear benefits for students, there are some disadvantages to keep in mind. The lack of interpersonal communication can be a barrier for some students. In online education there is no face-to-face communication between the teacher and the student or between students, no non-verbal cues, and few chances for immediate feedback. These drawbacks can certainly lead to misunderstanding of
Effectiveness of Online

expectations, especially in the beginning of a course. Social and emotional aspects of learning are an important part of a student’s education in that they provide a comfort to some students and online education is weak in this area (Donlevy, 2003; Berman & Tinker, 1997; Perreault, Waldman, Alexander, Zhao, 2002).

Another disadvantage to online education is motivation. An online student must be self-motivated in order to get the most out of a class. Even though due dates may be posted, there is no teacher around to give an extra push to complete the task in a timely manner (Varvel, 2001).

The technology itself can also be a drawback to online education. Students must have access to a wide variety of technological equipment. They can become frustrated by malfunctions when submitting assignments, locating particular information and taking tests online (Perreault, Waldman, Alexander, Zhao, 2002).

*Essential Components on Online Education*

In order to keep the disadvantages of online learning to a minimum, there are key components in its delivery that should be utilized. Because online learning does not involve face-to-face communication, feedback and interaction with students is imperative. Communication is key if students and instructors are to create an effective learning community. Instructors need to begin by creating an environment that is open, positive, and non-threatening. This type of environment is created by utilizing activities that introduce students to one another and to the teacher, taking advantage of forums in which students discuss course work much like they would in a typical classroom, and by assignments that ask students to work together for a common goal. Instructors should
also set the tone for discussion by serving as a model in their responses (Varvel, 2001; Boaz, 1999).

Communication is a key to keeping students motivated throughout the course. Because instructors are not there to prod students along, they must find ways to motivate them by feedback given online. One of the essential components in motivation is having the instructor make his/her presence felt by responding effectively and promptly to student questions (Varvel, 2001; Boaz, 1999). Just as in any other setting, online instructors must also reward and encourage students by giving personal feedback (Varvel, 2001; Boaz, 1999).

Another essential component of online learning is putting together learning activities that motivate students to learn. One activity often used in online learning is discussion groups. This activity allows students to interact and participate in much the same way that they would in a traditional classroom. An added advantage to online discussion is that many times these are asynchronous discussions, which enables students to think about their responses for a longer period of time and thus more effectively convey their intended message (Varvel, 2001; Boaz, 1999; Berman & Tinker, 1997).

Creating collaborative learning activities in the online learning environment is yet another way of not only motivating students, but also making them feel more a part of a class. Key to collaborative learning is interdependence among the students involved. Students in an online environment may have trouble feeling like they are a part of a classroom community, since they typically never see one another. Creating projects for students to work on collaboratively in an online environment may present a challenge,
but the reward of community within the online setting is invaluable (Instructional, 2003; Notar, Wilson, & Ross, 2002; Boettcher & Conard, 1999).

Another element of effective online education involves instruction in technology. Students may not initially have all the technological skills necessary to be successful in an online course. Therefore, it is imperative that early in the course instructors do what they can to orient students to the delivery method being used. Making support services available, including a frequently asked questions page, and a pre-course orientation session can help students overcome technology related problems (Varvel, 2001; Boaz, 1999; Perreault, Waldman, Alexander, & Zhao, 2002).

A final component of making online learning as effective as possible is the role of the instructor. In this environment the teacher serves as a “facilitator, or guide who makes instruction learner centered” (Notar, Wilson, & Ross, 2002, p.1). This is one of the most effective ways that teachers can help students in the learning process (Van Dyk, 2000). As a guide an educator uses motivation, modeling, and encouragement to facilitate learning.

Student Perceptions

Before designing an online course, instructors should keep student opinions in mind. Some students have reported that they have been frustrated with the change in interaction between themselves and their instructors (Frisbie & Mitchell, 2001; Beard & Harper, 2002). Students also indicated that they missed the spontaneity and humor brought forth in a traditional setting (Frisbie & Mitchell, 2001). They also expressed their concerns with technological malfunctions (Beard & Harper, 2002). Despite these
issues students reported that they would take an online course again (Beard & Harper, 2002).

Not all studies have reported these findings. Riffell and Sibley (2003) report that the majority of students felt that the interaction with the instructor was not only adequate, but was of higher quality as compared to a traditional lecture format. This study also noted that students believed that the nature of online homework had several benefits as compared to assignments in the traditional setting, including time management, flexibility, and time on task. Students in this study also suggested that in order to be successful in an online course one should be self motivated and organized.

*Related Studies*

Studies show that online courses are effective. Virtual Greenbush, an online high school, offers a number of courses to help supplement the curriculum of smaller high schools in southeast Kansas. They reported that student achievement in their online courses was “equal to, if not better, than student achievement in regular school courses” (Mills, 2002). In a survey given by Virtual Greenbush, students reported taking online courses because of scheduling conflicts, making up credits, interest in the topic, and the lack of courses available at their own schools.

Another study, which focused on an undergraduate nursing program, found that there was no difference in content acquired among the three groups of students in the study. One group received the material in a traditional format, another used the Internet to enhance course curriculum and a third group received instruction completely online (Buckley, 2003). This study showed that there were no differences in course grades among the three groups (Buckley, 2003).
A third study went a step further and compared the learning styles of students in online and on-campus health education courses. Diaz and Cartnal (1999) conclude that there are differences in the learning styles of successful online learners as compared to students in a traditional setting. Learning style choices of successful online students include a more independent and self-paced style. On the other hand, they also displayed a willingness to work in collaborative settings that were structured by the teacher. Diaz and Cartnal suggest that teachers should use information about their students’ learning style preferences in “designing class delivery methods, choosing educational technologies and developing sensitivity to differing student learning preferences within the distance education environment” (Diaz & Cartnal, 1999, p.10).

Summary

Overall, the literature suggests that online learning is an effective instructional strategy. As with any teaching strategy instructors must consider the underlying philosophical tendencies, advantages and disadvantages, key components for success, and student perceptions and learning styles. Keeping all these factors in mind, online courses can be valuable alternatives to traditional instruction.
Methods

Participants

There were thirty-one participants in two different classes that were involved in this study. The groups were divided into an experimental group (n=19) and a comparison group (n=13). They are primarily white students (94%) who range in age from 16-18 and are classified as seniors. The sample is split almost evenly on the basis of gender, 52% male and 48% female. All of the participants were honors students in a Midwest public school. Students have met the following qualifications to take Honors American Government: (1) 3.2 unweighted GPA and (2) an A or B in United States History or an A, B, or C in Honors United States History. None of these students had ever taken an online course before.

Research Design

On the first day of the experiment, students were asked to complete the High School Internet Education Survey, which was originally used by Mills (2002) that was modified by the author to fit the needs of the study (Appendix B). This survey asked students a series of fifteen questions about learning style preferences and computer skills. Each question was rated on a 5-point Likert scale. Students’ understanding of unit content was assessed with two written essays (Appendix D and E) and a final exam (Appendix A). On the last day of the experiment students were asked to complete another survey that was modeled after one used by Riffell and Sibley (2003), which asked students to indicate traits necessary for success in an online course as well as questions about individual components of the online delivery system (Appendix C).
The essay on the operations of the Supreme Court (Appendix D) was graded in the following manner. Students were asked four questions based on the reading they had done. Student’s answers to each question were worth ten points. Additionally, up to ten points were awarded for proper use of writing conventions. The Supreme Court case review paper (Appendix E) was graded with specific criteria in much the same manner as the operations of the Supreme Court essay. Up to ten points were awarded to students for describing the background of the case, five points for discussing the constitutional issue of the case, thirty points for discussing the rationale of the Court’s decision, and five points for indicating the lasting implications of the decision. Students also answered two essays on their final exam over the judicial branch. The author of this study set up grading criteria for these essays as well. Different point values were awarded for answering specific parts of the essay questions (Appendix A).

Both the experimental and comparison groups studied a unit on the judicial branch of government. Both groups of students received the same content, but the method of instruction was different. Students in the comparison group heard the lectures on the judicial branch and had key terms and concepts posted on the whiteboard. The students in the experimental group were able to see the author’s lecture notes. They were posted on Blackboard using Powerpoint. A study guide containing key terms and concepts to helped focus their study. Students in both groups had assigned readings from a textbook and supplemental primary sources. Students in both classes had to choose a Supreme Court Case to review (Appendix E). Students in the experimental class had to share abbreviated versions of their findings using the threaded discussion feature, while students in the comparison class shared their findings in a 3-5 minute presentation in
front of their classroom peers. Students in the experimental class shared their opinions on the supplemental and textbook readings using a threaded discussion, while students in the comparison group shared their views with one another during classroom discussion. Students in both classes also had to submit an essay on the operations of the Supreme Court in which they had to draw conclusions from the supplemental readings (Appendix D). Finally, both groups were assessed with a traditional exam that included multiple choice, matching, true false, short answer and essay questions (Appendix A).

Methods of analyzing the data

To measure the effectiveness of learning in an online course compared to traditional methods, a t-test (Table 1) was used to compare the results of the essay on the operations of the Supreme Court, Supreme Court case review, and an exam in order to determine if there was any significant difference between the two groups in content acquired by the sample. In order to understand the attitudes of students toward online instruction, the mean score of the results of the first survey given to students in the experimental group was calculated. The mean response (Table 2) numerically indicated the learning style preferences and computer skills of those students. Results of the second survey (Table 3) concerning successful traits of online students and specific aspects of the online activities were analyzed in two different ways.
Results

Results of Data Analysis

The purposes of this study were to examine the effectiveness of online education using the Blackboard delivery system and to examine student perceptions of the significant issues concerning success in online courses. The null hypothesis for this study was that there is no statistical difference in content acquired between the experimental and comparison group scores.

Class averages of the paper, case review and exam were calculated for the experimental and comparison groups. A $t$ test, with a 95% confidence interval, was used to determine whether there was a significant difference between the two groups. The results of the two-tailed independent $t$ test to compare the total mean scores of the experimental and comparison group yielded a $t$ value of 1.732. The critical value of $t$ at the 95% confidence level with 29 degrees of freedom (taken from the table of $t$ values) is 17.71. On the basis of these findings, null hypothesis is retained.

The initial survey given to students asked students about their learning style preferences and computers skills. Table 2 shows the distribution of those responses on the 5-point Likert scale as well as the mean score. Responses indicated that students in the experimental group were generally motivated to achieve in their classes, in fact all students either agreed or strongly agreed to the statement regarding their desire to achieve. Students also indicated with a mean response of 1.72 that they were high achievers. Most students also agreed that interpersonal communication was important to them. They responded with a mean of 1.39 that it is important to them that teachers give feedback and a mean response of 1.78 was given for the statement concerning the
importance of face-to-face interaction with teachers. Students in the experimental group also agreed that they were self-directed learners with sixteen of the students agreeing or strongly agreeing. Finally, students indicated that they were comfortable using the computer and had easy access to a computer with internet capability. Mean responses for those statements were 1.44 and 1.22 respectively.

Results from Table 3 demonstrate that students believed that to be successful in an online class one must certainly be self-motivated, be a high achiever and receive timely feedback. On the various aspects of Blackboard students believed that the tutorials helped them to understand key points and provided a good summary and threaded discussions were great for hearing the opinions of other students. Specific student responses included:

- “Tutorials helped me see what the teacher felt was most important.”
- “Tutorials notes helped me know what I needed to know.”
- “Threaded discussions were helpful because I was able to read the opinions of people who normally don’t speak up in class.”
- “Threaded discussions were helpful because I liked hearing others opinions; I learned a lot from it.”

Not all students found these same aspects of Blackboard helpful. Some believed that the tutorials were too vague. Other students missed the verbal interaction between students and the teacher that a more traditional setting provides. Students also found the antiquated language of primary sources difficult to understand. Not many students were frustrated with threaded discussions, but a few stated that they didn’t have enough time to
read through all the posted comments. Specific responses by the experimental group included:

- “Tutorial notes were kind of confusing and lacking in detail.”
- “Tutorial seemed incomplete, missing in the little facts that the teacher adds.”
- “Some of the readings were hard to understand, the older documents.”
- “There was not enough time to read everyone’s comments.”

General comments about the course were also surveyed. Many of the students stated that to be successful in an online course one needed to be self-motivated. The other most often mentioned general statement was one about missing the interaction of a traditional classroom. Student responses to general comments on online education included:

- “I would definitely recommend online classes to anyone who would like some autonomy in their learning. It is important to choose a class of interest to keep up motivation to learn the material.”
- “In order to succeed in this type of class you must be a self-motivator. Without that there is no chance of succeeding.”
- “I like in the classroom work better. I like the one on one contact and discussion.”
Discussion

The results showed that there was no significant difference among the essays and test scores between the experimental and control groups. One can account for this in part because of the consistency of course content. Students were able to grasp the important concepts of the judicial branch in spite of how they received the content. All grades were average or above, which indicates that both delivery methods were successful.

Overwhelmingly, students commented on the need to be self-motivated in order to be successful in an online course. These responses are consistent with the literature discussed earlier in this paper that stated motivation was a key factor in a successful online environment. Students in this study held many of the same views of those reviewed earlier in the paper concerning motivation and the need for face-to-face communication (Varvel, 2001; Boaz, 1999).

Another common response by students was their positive reaction to the threaded discussion. This was another key component to a successful online education environment discussed earlier in the literature review (Varvel, 2001; Boaz, 1999; Berman & Tinker, 1997). Students liked hearing responses from those who did not normally speak-up in class and thought that the discussions led to a greater understanding of course objectives.

One of the most common perceptions among students was that the readings were difficult to understand because of the older style of writing. However, this problem is not specific to the delivery method; it is a common complaint in the traditional classroom as well. Therefore, this complaint is not a factor in evaluating the efficacy of this delivery
method. This concern will be remedied only when students are willing to challenge themselves by embracing more sophisticated writing styles.

There were two related limitations of this study. First, students had already taken most of the course in a traditional setting before the online class was introduced as the new method of delivery. A second limiting factor was that most of the students had not been exposed to online delivery systems such as Blackboard. As with any instructional strategy, frequent exposure will help raise the students’ comfort level and thus minimize their concerns.

Another limitation to this study is that typically students taking an online course do not have any face-to-face contact with their instructors. Students in this study saw the author of this study on a daily basis because she was in the room during the time they worked on the course online. Even though no verbal communication took place, students were in close proximity.

A final limitation of the study concerns the small number of students involved in the experimental and control groups. This limits the ability to generalize the results.

One of the most intriguing aspects of the online setting for the Christian educator is the use of the teacher in the online setting serving as a guide rather than someone who is in control of what can be learned. Online education gives students the opportunity to access avenues that a typical teacher cannot expose them to because of time and distance constraints. Online education offers students the chance to explore areas of interest. God put us on this earth to explore and discover his wonders and be stewards over it. Online education offers avenues for exploration, and what the students take from it will certainly help them be stewards. From the teacher’s perspective this is an awesome responsibility
to guide students in their discovery of creation, and help them develop their God-given talents and abilities. Furthermore, online education gives students the opportunity to discuss obedient and disobedient uses of technology.

Collaborative learning environments are especially exciting for Christian educators since this is a reflection of the body of Christ and how all talents are needed for the betterment of the whole. Creating such an environment in an online environment is indeed a challenge for instructors, however it is important to help students feel that they are part of a larger learning community. Components of the online environment, such as the virtual classroom and threaded discussions are essential to creating an inclusive classroom community. Having students collaborate on projects may be somewhat more difficult in an online setting, but nevertheless can be done successfully and make students feel that they are a part of a body of learners.

A downside to online education is its constructivist approach to learning (Notar, Wilson, & Ross, 2002; Boettcher & Conrad, 1999). Van Brummelen offers a Christian perspective of the constructivist philosophy.

…while a constructivist orientation encourages children to use their gifts to the fullest, ultimately it promotes a self-centered individualism. It does not recognize that God has created a reality that we care for and unfold, but holds that we create reality and meaning in and of ourselves (1994, p. 50).

While the constructivist philosophy does recognize the need for students to be actively involved in the learning process, it is dangerous in that it holds that meaning is a product of the individual and thus unstable. This is problematic because it leaves out God’s creation and the truth that it provides for all. The Christian educator must make clear that
there is truth; God’s ultimate truth which is lasting and infallible. By using the teaching model of guiding, unfolding, and enabling suggested by Van Dyk (2000), a Christian educator can lead his/her students through the stated curriculum and enable them to be what God created them to be—bearers of His image who further the Kingdom. By doing this the constructivist philosophy and its drawbacks can be minimized.

Finally, even though there was not an improvement in scores of the experimental group over the comparison group, they performed well and had average and above average scores on all assignments. Online education is a method of delivery that certainly has its advantages and disadvantages. It is in the best interest of teachers to weigh the costs and benefits while keeping in mind the learning style preferences of their students before jumping whole-heartedly into a new instructional strategy.

Conversely, there are also those instructors who resist change. They must first acquaint themselves with the new technology and its uses before attempting to offer this instructional alternative to their students. Those who are currently using this delivery method have an opportunity and a responsibility as stewards to mentor colleagues as well as students.
References


http://www.ion.illinois.edu/IONresources/instructionalDesign/instructionalStrategies.asp


Appendix A

Judicial Branch Exam
Judicial Branch Exam

Directions: Select the answer that best completes the statement or answers the question. (1 pt. each)

1. The chief judicial weapon in the government’s system of checks and balances is known as
   a. judicial activism.  
   b. judicial interpretivism.  
   c. judicial review.  
   d. judicial standing.

2. Senate conservatives, for example might make their approval of a Supreme Court nominee contingent on that person’s view about the death penalty. This practice is known as
   a. judicial standing. 
   b. a political litmus test.  
   c. senatorial courtesy.  
   d. an amicus curiae standard.

3. Strict-constructionist judges differ from activist judges in that they are MORE likely to
   a. support policies that address social and economic problems.  
   b. apply rules that are clearly stated in the US Constitution.  
   c. believe in the application of judicial review to criminal matters.  
   d. look for and apply the general principles underlying the US Constitution.

4. A judicial activist is a judge who holds
   a. that courts should make as well as interpret law.  
   b. a liberal ideology.  
   c. that courts should make but not interpret law.  
   d. a conservative ideology.

5. Which of the following is MOST likely to be true of an activist judge?
   a. He or she is conservative politically.  
   b. He or she is bound by the wording of the US Constitution.  
   c. He or she is liberal politically.  
   d. He or she is an interpretivist.

6. The Dred Scott case involved
   a. the right of the national government to charter a bank.  
   b. the doctrine of separate but equal.  
   c. admission of new states to the union.  
   d. a slave owner’s property rights to an escaped slave.
7. From the Civil War to the 1930s, the Supreme Court was primarily occupied with
   a. the civil rights of former slaves.
   b. economic regulation by government.
   c. the rights of criminally accused.
   d. the balance of powers between states and the federal government.

8. The period in Supreme Court history from 1936 to the present has been marked by a concern for
   a. the regulation of commerce.
   b. states’ rights.
   c. personal liberties.
   d. private property.

9. Franklin Roosevelt’s court-packing plan would have allowed him to name a new justice
   a. for every sitting justice older than 70.
   b. once a year, irrespective of retirements.
   c. every time the court struck down one of his laws.
   d. to replace any sitting justice older than 70.

10. Which courts are mentioned in the US Constitution?
    a. the Supreme Court only.
    b. the Supreme and appellate courts.
    c. the Supreme, appellate and district courts.
    d. both constitutional and legislative courts.

11. One basic difference between a constitutional court and a legislative court is that
    a. constitutional courts handle cases that need not be decided by the Supreme Court.
    b. constitutional court judges cannot be fired.
    c. legislative courts handle cases that need not be decided by the Supreme Court.
    d. legislative court judges cannot be fired.

12. Why are presidents often disappointed by the records of their Supreme Court appointees?
    a. Some justices are not as qualified as they seem.
    b. Judicial behavior is hard to predict.
    c. Most presidents get only a few chances to make Supreme Court appointments.
    d. Presidents often have unrealistic expectations.
13. Which of the following statements about the selection of federal judges is correct?
   a. The principle of senatorial courtesy applies to the selection of judges in the legislative courts.
   b. Presidents generally appoint judges whose political views reflect their own.
   c. Nominees for district court judge often face tough confirmation battles in the Senate.
   d. The application of political litmus tests to Supreme Court nominees was established with the nomination of David Souter.

14. It has been suggested that senators actually appoint district judges, and presidents confirm them, through the practice of
   a. senatorial courtesy.
   b. advice and consent.
   c. legislative vetoes.
   d. requiring a 2/3 majority for confirmation.

15. Senator Roberts has refused to return his blue slip. In so doing, he is
   a. approving the president’s nominee for the Supreme Court.
   b. approving the president’s choice for chief justice.
   c. rejecting the president’s nominee for the Supreme Court.
   d. rejecting the president’s nominee for a district judgeship.

16. The dual-court system of the US refers to
   a. trial and appellate courts.
   b. criminal and civil courts.
   c. statutory and common law courts.
   d. federal and state courts.

17. California is suing Arizona over the use of the Colorado River. The case will be heard by
   a. a federal court.
   b. the Supreme Court of California.
   c. the Supreme Court of Arizona.
   d. the US Supreme Court.

18. The majority of cases heard by federal courts begin in
   a. district courts.
   b. state courts.
   c. municipal courts.
   d. appellate courts.

19. Two common ways for a plaintiff to lower the costs on an appeal are by filing and being heard as a pauper and by
   a. finding an interest group to support the case.
   b. filing a writ of certiorari.
   c. asking the courts to rule in absentia.
   d. suing under the principle of sovereign immunity.
20. Fee shifting refers to the practice of
   a. dividing attorney’s fees among all participants in a class-action suit.
   b. getting the loser to pay court costs.
   c. getting the government to pay the fees of all parties.
   d. having attorneys adjust their fees according to their experience and the
      damages awarded.

21. Under the doctrine of sovereign immunity, a citizen cannot
   a. sue the government without its consent.
   b. bring two suits against one individual for the same crime.
   c. bring the same suit to courts in two different states.
   d. appeal a case that has already been ruled on by the Supreme Court.

22. Class-action suits are more advantageous than single-party suits in that they
   allow
   a. extremely controversial issues to be adjudicated.
   b. the government to protect itself from frivolous suits.
   c. lawyers to practice without receiving fees.
   d. large groups of people to receive relief.

23. Brown v. Board of Education is an example of a
   a. tax-payer suit.
   b. class-action suit.
   c. Section 1983 suit.
   d. reapportionment suit.

24. An interest group such as the ACLU or the NAACP is most likely to attempt
   to influence the Supreme Court by
   a. appealing a decision directly to the president.
   b. consulting in the nomination process of a new Supreme Court justice.
   c. writing an amicus curiae brief.
   d. raising a political question with the solicitor general.

25. What happens if a vote by the Supreme Court ends in a tie?
   a. The chief justice breaks the tie.
   b. A majority of both houses of Congress decides the case.
   c. The lower court decision is left standing.
   d. A vote cannot end in a tie because all nine justices must participate in
      every vote.

26. Justice Ginsburg, for example, votes on the side of a majority of Supreme
    Court justices on a particular case even though her reasoning differs from the others. She
    may choose to express her reasons in a(n)
   a. dissenting opinion.
   b. concurring opinion.
   c. opinion of the Court.
   d. per curiam opinion.
27. An important reason federal courts follow precedent is that
   a. lower court judges have less expertise than members of the Supreme Court.
   b. the 14th Amendment requires following precedent to avoid conflict with state courts.
   c. the practice of stare decisis makes judicial decision making chaotic.
   d. equal justice requires similar cases to be decided the same way.

28. The power of federal courts to make policy derives from all of the following EXCEPT
   a. their interpretation of existing laws.
   b. their extension of the reach of existing laws.
   c. their designing of imposed remedies.
   d. their enactment of new laws.

29. Justices who believe the Supreme Court should change the direction of legislative policy are advocating
   a. social Darwinism.
   b. judicial activism.
   c. strict constructionism.
   d. judicial restraint.

30. A frequent criticism of judicial activism is that judges
   a. have little expertise in managing policy areas.
   b. are helping the wrong people.
   c. do not exercise it enough.
   d. should do more research before becoming involved with policy.

31. The fact that prayer continues in some public schools, even though the Supreme Court has declared it unconstitutional, is an example of
   a. the slowness of the appeals process.
   b. ambiguity in the Court’s decisions.
   c. lack of effective enforcement by the Court.
   d. the power of state government to countermand judicial rulings.

32. One restraint under which the federal courts operate is that
   a. public opinion and election politics can undermine their efforts.
   b. their decisions can sometimes be ignored.
   c. the president can always impeach a federal judge for backing an unpopular position.
   d. the president can always fire a federal judge.

33. Congress can check the power of the federal judiciary in all of the following ways EXCEPT
   a. by confirming or not confirming nominees.
   b. by changing the number of judges.
   c. by initiating amendments to the US Constitution.
   d. by interpreting laws themselves.
34. One practicable way that Congress can get around an unfavorable Supreme Court ruling on a law is to
   a. remove the judges who voted against the law.
   b. overturn the Supreme Court ruling.
   c. repass the law in slightly altered form.
   d. strip the Supreme Court of its enforcement authority.

35. Congress has the power to decide the jurisdiction of lower federal courts.
   This means that
   a. Congress can determine the number of judges that sit on each court.
   b. Congress can decide what types of cases these courts hear.
   c. Congress can veto decisions of lower courts, unlike those of the Supreme Court.
   d. lower courts cannot declare an act of Congress unconstitutional.

Directions: Define/explain the significance of the following terms. (2 points each)

36. Remedy:

37. Judicial Review:

38. Per curiam opinion:

39. Writ of certiorari:

40. Dissenting opinion:

Directions: Place a “T” in the blank if the statement is true and a “F” in the blank is the statement is false.(1 pt. each)

41. Federal judges serve for life on constitutional and legislative courts alike.

42. Senators wield great influence over the appointment of lower federal judges.

43. A political litmus test has its greatest impact on nominees to the Supreme Court.

44. Five justices are required to have the Supreme Court hear your case.

45. Laws and the US Constitution are filled with vague language, which calls for frequent interpretation by the courts.

46. Supreme Court decisions can sometimes be ignored without fear of prosecution.

47. Impeachment is too rarely used on federal judges to have much on an effect on their behavior.
48. Once a law has been ruled unconstitutional, Congress is powerless to do
    anything about it.
49. Congress can change the jurisdiction of federal courts.
50. The federal courts have generally been most active during times of relative
    tranquility in the country.

Directions: Place a “C” in the blank if the statement is constitutional and a “UC” in
the blank if the statement is unconstitutional (1 pt. each)

51. On reasonable suspicion a principal searches through a student’s belongings.
52. A school establishes a moment of silence for meditation or voluntary prayer.
53. Kansas passes a law that allows the death penalty to be given for someone
    who is 17.
54. A school requires that 2 pages of the school newspaper be removed before
    publication.
55. A school requires that its students pledge allegiance to the flag each morning.
56. In protest to the draft David burns his draft card.
57. The police have searched through my garbage can by my home for evidence
    in a crime.
58. The police stop a man who has been pacing in front of a bank for 3 hrs. and
    acting suspiciously. They then proceed to do a quick pat down of the man.
59. In 1900, New York had a separate school for students based on race.
60. Students at North High plan to wear a purple ribbon in protest of a
    government policy and are suspended from class. There have been no
    prior problems with student protest at North High.
61. An Amish child of 15 is not attending school.
62. Brentwood elementary school posts the 10 commandments at its entrance.
63. In protest to US activity in Iraq, Beth burns a flag on the steps of the
    courthouse.
64. Any student participating in athletics at East High had to agree to be drug
    tested periodically.
65. West High had to allow a Christians on Campus club to meet at the school.
Directions: Answer question 66 and then choose between questions 67-68 using COMPLETE SENTENCES and in essay format.

66. Discuss what someone would have to go through in order to get his or her case heard by the Supreme Court through the time that a decision is released. (What cases can they hear, how do I get my case to be heard, what happens at the Supreme Court building, what happens in decision making) (20 points)

67. Discuss the ways in which Congress can seek to check the power of the federal courts, and comment on whether you think that these checks are desirable or undesirable. (10 points)

68. Sketch the history of the development of the federal judiciary, paying attention to the dominant issues handled by federal courts in three eras and specific cases: from the founding to the Civil War; from the Civil War to the New Deal; from the New Deal to the present. (10 points)

Grading Criteria--66
How the Supreme Court gets cases _____ out of 5
Filing process and Rule of 4 _____ out of 5
Court Procedures _____ out of 5
Decision making and opinions _____ out of 5

Grading Criteria--67
Examples of Checks and Balances _____ out of 7
Desirability of Checks _____ out of 3

Grading Criteria--68
Era #1—Description and issue _____ out of 2
Era #2—Description and issue _____ out of 2
Era #3—Description and issue _____ out of 2
Discussion of Cases in each era _____ out of 4
Appendix B

Online Education Survey: Prior to Taking Online Class
Online Education Survey
Prior to taking online class

Directions: Select the number to indicate how much you agree or disagree with each statement. Feel free to add comment on any question.

1= Strongly Agree
2=Agree
3=Neutral
4=Disagree
5= Strongly Disagree

_____ 1. I try to achieve in all my classes, regardless of difficulty.
_____ 2. I have the ability to learn new tasks.
_____ 3. It is important that my teachers give me feedback that I can use to improve.
_____ 4. I am organized in my study habits.
_____ 5. I am a high achiever.
_____ 6. I schedule activities to allow enough time to accomplish them.
_____ 7. If I am unsure of what to do, I tend to wait for instructions.
_____ 8. Personal contact with my classmates is important to me.
_____ 9. Face-to face interaction with teachers is important to me.
_____ 10. I am a task-oriented person.
_____ 11. If I am given a task that I know little about, I don’t mind taking a chance.
_____ 12. I feel that I am a self-directed individual.
_____ 13. Having control over the pace of learning is important to me.
_____ 15. I have easy access to a computer with Internet capability.
Appendix C

Online Education Survey: After Taking Online Class
Online Education Survey
After taking online class

Directions: Select the number to indicate how much you agree or disagree with each statement. Feel free to add comment on any question.

1= Strongly Agree
2=Agree
3=Neutral
4=Disagree
5= Strongly Disagree

In order to be successful in an online class a student must:

_____ 1. Be able to learn new tasks easily.

_____ 2. Receive timely feedback.

_____ 3. Be a high achiever.

_____ 4. Have good computer skills

_____ 5. Be self-motivated

6. What specific aspects of each item did you like/find most helpful in learning the material.
   - Tutorial
   - Readings
   - Threaded Discussion

7. What specific aspects of each item did you find most frustrating in learning the material.
   - Tutorial
   - Readings
   - Threaded Discussion

8. General comments on online education
Appendix D

Operations of the Supreme Court Essay
Operations of the Supreme Court
Essay Assignment

Just what exactly does the Supreme Court of the United States do? The Court is asked to make decisions everyday that affect aspects of our everyday life. We are always encouraged to participate in government in any way that we can. Does this branch allow citizens the greatest access? When one looks at the Constitution and reads its first three articles it may seem at first glance that the Judicial branch does not have as much power as the other two, but when taking a deeper look, their decisions directly effect our daily life. In this assignment you are asked to examine a Supreme Court decision, read an article written by a former justice, and then comment on the power and decision making process of the judiciary.

Directions:
1. Read #70—Dickerson v. United States and # 72—“How the Supreme Court Arrives at Decisions”
2. Take note of procedures that former Supreme Court justice Brennan indicates were used to make Court decisions.
3. In an 2 page essay use the readings to answer the following questions:
   a. What kinds of resources are required to bring a case to the Supreme Court?
   b. Is the judicial system more accessible than the legislative or executive branches?
   c. What are the checks on the power of the judiciary? Are they potent and easily invoked, or weak and difficult to invoke?
   d. Why haven’t vastly unpopular decisions, such as those on busing and school prayer, been successfully overturned?

<table>
<thead>
<tr>
<th>Grading Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q #1—Resources</td>
</tr>
<tr>
<td>Q #2—Accessibility</td>
</tr>
<tr>
<td>Q #3—Checks on power</td>
</tr>
<tr>
<td>Q #4—Overturning decisions</td>
</tr>
<tr>
<td>Conventions</td>
</tr>
</tbody>
</table>
Appendix E

Supreme Court Case Review Assignment
Supreme Court Case Review Assignment

The Supreme Court writes about 100 opinions each session. As you have discovered through your readings and tutorial session, the subjects of cases are varied. From discrimination to abortion to election laws, nine appointed individuals make decisions that effect how you go about your everyday life. In this assignment you are asked to pick a famous Supreme Court decision and construct a case brief.

Directions:

2. Choose a case from the list below. Make sure you let me know which one you would like to research because only one person may have a case.

Search and Seizure Cases
- New Jersey v. TLO
- Weeks v. United States
- Mapp v. Ohio
- California v. Greenwood
- Terry v. Ohio

Capital Punishment
- Gregg v. Georgia
- Stanford v. Kentucky

Trial Rights
- Powell v. Alabama
- Gideon v. Wainwright
- Escobedo v. Illinois
- Miranda v. Arizona

Freedom of Speech/Press
- Hazelwood School District v. Kuhlmeir
- Tinker v. Des Moines School District
- Texas v. Johnson
- Miller v. California
- US v. O’Brien

Freedom of Religion
- Wallace v. Jaffree
- Wisconsin v. Yoder
- West Virginia State Board of Education v. Barnette
- Westside Community Schools v. Mergens
- Engel v. Vitale
- Stone v. Graham
Discrimination
Plessy v. Ferguson
Brown v. Topeka Board of Education
Regents of the University of California v. Bakke
Adarand Constructors v. Pena
Gratz v. Bollinger
Automobile Workers v. Johnson Controls, Inc.

Right to Die
Cruzan v. Director of Missouri Department of Health
Vacco v. Quill

3. Once you have chosen a case make sure the following are addressed in your report:
   a. Background of the case: What is the story?
   b. Constitutional Issue: What amendment is being violated?
   c. Court’s Decision and Rationale: What did they say? What are their reasons? Are there any dissenting opinions? If so what point did those justices want to make?
   d. Implications/Effect of the decision: What does this mean for the life of an American citizen?

4. You will share an abbreviated version of your findings with the class.

Scoring
This assignment is worth 50 points.
10 points for the background of the case
5 points for examining the constitutional issue
30 points discussing the Court’s decision and rationale
5 points for suggesting how the effects of the case involve the average citizen

<table>
<thead>
<tr>
<th>Grading Criteria</th>
<th>out of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background</td>
<td>10</td>
</tr>
<tr>
<td>Issue</td>
<td>5</td>
</tr>
<tr>
<td>Review of Court’s Decision</td>
<td>30</td>
</tr>
<tr>
<td>Lasting Implications</td>
<td>5</td>
</tr>
</tbody>
</table>
Table 1

Two-tailed $t$ test Comparing Mean Scores
Table 1

Two-tailed t test Comparing Total Mean Scores of Experimental and Comparison Groups Regarding the Implementation of Blackboard

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>19</td>
<td>87.333</td>
<td>4.1633</td>
<td>29</td>
<td>1.732</td>
</tr>
<tr>
<td>Comparison Group</td>
<td>13</td>
<td>89.333</td>
<td>4.1633</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2

Results of Survey Given to Experimental Group Prior to Online Unit
Table 2

*Results of Survey Given to Experimental Group Prior to Online Unit*

<table>
<thead>
<tr>
<th>Question</th>
<th>1-Strongly Agree</th>
<th>2-Agree</th>
<th>3-Neutral</th>
<th>4-Disagree</th>
<th>5-Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>I try to achieve in all my classes, regardless of difficulty</td>
<td>11</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.39</td>
</tr>
<tr>
<td>I have the ability to learn new tasks</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.33</td>
</tr>
<tr>
<td>It is important that my teachers give me feedback that I can use to improve</td>
<td>13</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1.39</td>
</tr>
<tr>
<td>I am organized in my study habits</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2.83</td>
</tr>
<tr>
<td>I am a high achiever</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1.72</td>
</tr>
<tr>
<td>I schedule activities to allow enough time to accomplish them</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>2.78</td>
</tr>
<tr>
<td>If I am unsure of what to do, I tend to wait for instructions</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>2.72</td>
</tr>
<tr>
<td>Personal contact with my classmates is important to me</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1.94</td>
</tr>
<tr>
<td>Face-to-face interaction with teachers is important to me</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1.78</td>
</tr>
<tr>
<td>I am a task-oriented person</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>2.67</td>
</tr>
<tr>
<td>If I am given a task that I know little about, I don’t mind taking a chance</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>2.67</td>
</tr>
<tr>
<td>I feel that I am a self-directed individual</td>
<td>4</td>
<td>12</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1.89</td>
</tr>
<tr>
<td>Having control over the pace of learning is important to me</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>2.44</td>
</tr>
<tr>
<td>I feel comfortable using a computer</td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1.44</td>
</tr>
<tr>
<td>I have easy access to a computer with Internet capability</td>
<td>16</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1.22</td>
</tr>
</tbody>
</table>
Table 3

Results of Survey Given to Experimental Group Following Online Unit
Table 3

Results of Survey Given to Experimental Group Following Online Unit

In order to be successful in an online class a student must:

<table>
<thead>
<tr>
<th>Question</th>
<th>1- Strongly Agree</th>
<th>2- Agree</th>
<th>3- Neutral</th>
<th>4- Disagree</th>
<th>5- Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be able to learn new tasks easily</td>
<td>3</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2.1</td>
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<tr>
<td>Receive timely feedback</td>
<td>10</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1.56</td>
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<td>Be a high achiever</td>
<td>12</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1.44</td>
</tr>
<tr>
<td>Have good computer skills</td>
<td>3</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2.1</td>
</tr>
<tr>
<td>Be self-motivated</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

What specific aspects of each item did you like/find most helpful in learning the material?

<table>
<thead>
<tr>
<th>Number of like responses</th>
<th>Written Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutorial</td>
<td>Good summary of material</td>
</tr>
<tr>
<td>2</td>
<td>Helped me to understand what the teacher felt was important</td>
</tr>
<tr>
<td>5</td>
<td>Like to be able to print notes off</td>
</tr>
<tr>
<td>Readings</td>
<td>Put things in perspective</td>
</tr>
<tr>
<td>1</td>
<td>Good overview</td>
</tr>
<tr>
<td>1</td>
<td>Easy to understand</td>
</tr>
<tr>
<td>1</td>
<td>Gave additional information</td>
</tr>
<tr>
<td>1</td>
<td>Liked to read in quiet</td>
</tr>
<tr>
<td>Threaded Discussion</td>
<td>Liked hearing opinions of other students</td>
</tr>
<tr>
<td>8</td>
<td>Comments by other students were helpful in understanding material</td>
</tr>
</tbody>
</table>
What specific aspects of each item did you find frustrating in learning the material?

<table>
<thead>
<tr>
<th></th>
<th>Number of Like responses</th>
<th>Written Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutorial</td>
<td>2</td>
<td>Notes were vague</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Missed verbal interaction with teacher and other students</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Print was too small on power point slides</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Missed hearing the interesting stories from the teacher</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Hard to know what was important</td>
</tr>
<tr>
<td>Readings</td>
<td>8</td>
<td>Old style of writing made documents harder to understand</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Hard to know what was important</td>
</tr>
<tr>
<td>Threaded</td>
<td>3</td>
<td>Not enough time to read all comments</td>
</tr>
<tr>
<td>Discussion</td>
<td>1</td>
<td>Comments got repetitive</td>
</tr>
</tbody>
</table>

General Comments on online education

<table>
<thead>
<tr>
<th>Number of like responses</th>
<th>Written Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Must be self motivated</td>
</tr>
<tr>
<td>3</td>
<td>Prefer interaction in a traditional setting; face-to-face communication</td>
</tr>
<tr>
<td>2</td>
<td>Good idea</td>
</tr>
<tr>
<td>1</td>
<td>Online learning is for visual learners</td>
</tr>
<tr>
<td>1</td>
<td>Probably would be easier if you were used to this type of setting</td>
</tr>
</tbody>
</table>
VITA

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