

University of Wisconsin-Whitewater  
Graduate School

Combining Traditional Face-to-Face Classroom Strategies  
with Online Teaching Methods

A Project Submitted in Partial fulfillment  
of the Requirements for the  
Masters of Science in Curriculum and Instruction

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May 4, 2012

## Acknowledgements

I would like to give a heartfelt thank you to my family. They have made many sacrifices so that I could study and write and be thus chained to the computer for two years. To my husband, Peter, I swear I will work harder around the house someday. To my sons, Cole and Cash, I'm sorry about all the babysitters these past two years. I know you thought they were just coming over to play with you. They weren't. I would also like to thank my father, who has always made me think I could do anything I wanted and paid for some of those previously mentioned babysitters. To my mother who never has any doubts about her daughter. To Dr. Melissa Freiberg, thank you for your patience and encouragement. Your expertise in the early stages and your encouragement in the later stages of this project were the things that got me somehow through this. Finally, I'd like to thank my co-workers, Kate, Geri, Kyle, and Crystal. Thank you for putting up with me and supporting me through this crazy process. You don't know how much I needed that.

### Abstract

This study is a small scale study in which 41 students in two classes were subjected to two different teaching methods. During the research process, students were enrolled in an advanced junior level English class at a small high school. The researcher utilized a traditional face-to-face teaching method in the first phase of the study and combined the traditional face-to-face method with a lesser known online teaching method in the second phase of the study. The purpose of the study was to find out if one of the environments provided during the study was better for student learning than the other. The research questions addressed were: (1) How can online discussion forums be used to help students increase their skills in analyzing difficult texts? (2) How can online learning be used to effectively help students? (3) How can online discussion forums be used in conjunction with face-to-face education to meet the individual needs of students and increase their understanding in the content of their English classes? The results showed that there was some evidence to support that online learning techniques can be used in the classroom to enhance the learning environment and that individual students may benefit from such an addition.

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## Chapter 1: Introduction

### *Rationale for Project*

Students use technology in a variety of ways every day to help them in their studies. Students have also become massive consumers of technology for their private use. Some have i-pads, cell phones, lap tops, net books, e-readers, i-pods. Technology is everywhere; students find it convenient and expedient to their lives. With the fact that public schools often create opportunities to receive their schooling online, and universities offer degrees online, our society has become dependent on technology. Students use it today as readily as they use books. In fact, one could argue that they are more willing and more excited to use technology for learning. Rather than rely only on traditional means, schools need to capitalize on students' interest in technology, However, before districts put a computer lab in every classroom, schools need to make sure that teachers are effective using the technology and that the technology itself helps students learn as effectively, or more effectively, than by not using technology at all. Students need to know how to best utilize available technologies and understand the responsibilities that come along with it. We need to create a culture that helps produce students who can function both in the real world and in the digital one.

Parkview High school has been working on adding technology to the classroom for the past several years, and the district has participated in grants offered by the Enhancing Education Through Technology (EETT) grant program. This grant program is aimed at improving technology use in schools by teachers and students. This grant program also funded the Integrating State Standards, Achievement, and Curriculum to improve student learning (ISSAC) consortium. My involvement in the ISSAC consortium during the year of 2010-2011 has strengthened my understanding of the importance of 21<sup>st</sup> century thinking and the use of

technology in the classroom. However, as a teacher in the district I see an increased dependence on technology and a loss of analytical skills that are necessary for reading difficult texts. I have seen advanced students in my classrooms every September since 2007. Unfortunately, with every new class I encounter, I notice a decrease in the level of analytical skills students have, and based on their reading surveys, they suffer increased levels of distaste for reading.

Perhaps some of these issues stem from the fact that students today are submerged in their technology and have a difficult time separating themselves from it. According to a study by Nie and Ebring (2000), the amount of time a person spends on the computer increases with the number of years a person has access to a computer. Their research revealed that if a person has had more than five years access, he/she will average eight hours of computer time a week. Many American students have been using the computer since their elementary years. In our district students are using computers by the second grade. By the time they enter high school, they have had school access to computers for around seven years. This means that it is likely that many of our students may be comfortable enough with computers to be spending larger amounts of time on them. Logically speaking, the more time one spends on a computer the less time he spends on other academic or social activities such as reading or talking to friends or family members either in person or over the phone. One third of the internet users in the Nie/Ebring (2000) study reported that they spend significantly less time reading the newspaper. Nie and Ebring also reported that increased internet time has come at the “expense of time people spend on the phone gabbing with family and friends or having a conversation with people in the room with them” (p.19). Students are still connecting quite often to each other via text messaging and their Facebook pages, but they are not usually using those media to discuss academic matters.

As students become more dependent on technology, they are also spending less time on studying, memorizing, and discussing anything, let alone literature. A recent report in USA Today by the Associated Press stated that one third of the entering college freshmen have taken remedial classes. In community college, the portion of students that have had to take remedial math, reading or English is two thirds (May 11, 2010). Of course, this suggests that students at the high school level are improperly prepared for their freshmen level classes. It is necessary that teachers begin to explore different teaching techniques that appeal to the 21<sup>st</sup> century students' love of technology. Course Management Systems (CMS) have become popular over the past few years, and many schools have switched to online schooling to help aid students in credit recovery. My own district has used Odysseyware in an effort to help students recover credits and has access to the CMS Moodle to allow teachers to add supplemental online activities to their face-to-face classrooms.

A course management systems or CMS is designed for online teaching and learning. Course management systems provide an opportunity to teachers who have little or no understanding of computer programming to successfully create content, post content, and interact with students in a variety of ways. Some popular course management systems are D2L and Moodle, but there are countless others. Course management systems have been around for 50 years, but it has only been in last decade that they have become readily used by universities to provide access to education to a wide variety of students (Meertz, 2003, p.1). Those students generally never have to step foot on campus due to the virtual access to education through CMS.

Moodle is a CMS that has a very usable interface. Teachers can select what activities and the content they want to utilize for their course. Moodle offers a variety of tools for educators to design a virtual classroom such as calendars, chat rooms, quizzes, forums, etc. In Moodle,



teachers have the freedom to write their own assignments, assign readings they specifically chose, and control the content of their classroom by viewing what all students have contributed. They also have the control to remove any inappropriate writings contributed by the students in forums.

Odysseyware, on the other hand, has content that is pre-determined. Teachers can manage the content, by skipping certain assignments or choosing to assign certain assignments, but often readings are made available, quizzes are written, and assignments are designed by Odysseyware writers, though teachers do have some ability to modify certain content. Odysseyware is used by some schools to offer credit recovery. Some schools, including Parkview High School in Orfordville, WI, use a combination of the Odysseyware program and face-to-face teacher support to offer credit recovery to students who have failed to pass or complete courses in the traditional classroom.

As a teacher in the Parkview School district for the past seven years, it has been my experience that students' abilities to analyze difficult texts are worsening. With the increased interest in technology by both our district and our students, I think it makes sense to pair some of our weaknesses with some of our strengths. Students love their technology and have difficulty analyzing difficult texts. Perhaps we can use Course Management Systems such as Moodle to increase their analytical skills, as well as their ability to work collaboratively and feel comfortable having academic conversations about literature.

### *Summary*

In the book *Information technology for Learning: No School Left Behind*, by Ferdi C. Serim (2003), it says that, "...good teaching involves creating environments in which students take mindful effort towards developing their understanding, and have opportunities to learn how

to apply their knowledge and when to do so” (p. 105). I agree with this, and think that the use of technology will help make that a reality for all students. Parkview High School has been working toward the integration of technology in the classroom, and this project would combine curriculum design and research methods. Two novel units would be designed for Advanced Juniors in American Literature that would utilize the Course Management System (CMS) Moodle. The novels in the American Literature class that students tend to struggle with are F. Scott Fitzgerald’s *The Great Gatsby* and Nathaniel Hawthorne’s *The Scarlet Letter*. The CMS Moodle will be used to set up forums where students may reflect and compare notes on their interpretations of the texts. There will also be forums for students to ask each other questions as well as places to respond to writing prompts added by the instructor.

I plan to carry out research in a small scale study using English classes at my school as samples. Initially, I will assess each student’s skills in literary analysis by asking them to analyze a short work of Hawthorne’s such as “The Birthmark,” or Fitzgerald’s “Winter Dreams” and have them write an analysis paper and answer questions about the story. I plan to carefully design an online forum that is task based and ask one class to join the forum. Students in both groups will have the same amount of in class discussions, where I will keep track of who is participating in class discussions and how often that student is participating for both groups. To check the progress of the online and face-to-face students, I will analyze the online discussions as well as the aloud discussions. There will also be a final writing assignment assigned to both groups and a test that requires basic and deeper knowledge of the plot, setting and characters of each novel. The research will be a qualitative study, with the possibility of needing quantitative methods to analyze the tests/quiz data. It will also call for the use of a switch control group.

The purpose of this project would be to design two novel units for an already existing curriculum and test the effectiveness of using a Course Management System (CMS), specifically Moodle, in a face-to-face classroom. The purpose is also to use CMS technology to develop skills in analyzing literature and to increase student confidence as well as their independence when it comes to analyzing difficult texts.

The main research questions are: How can online discussion forums be used to help students increase their skills in analyzing difficult texts? How can online learning be used effectively to help students? More specifically, how can online discussion forums be used in conjunction with face-to-face education to meet the individual needs of students and increase their understanding in the content of their English classes?

## Chapter 2: Review of Literature

### Research

The research reviewed seems to be varied in its focus of the online structure. Nevertheless; three major categories began to emerge: perception of online learning by instructors and students, collaboration between online students, and the development of critical thinking skills. Due to the fact that online discussion forums give students access to their classmates' thoughts and ideas, the subjects of *collaboration* and *critical thinking skills* at times become blurred. However, it is worthwhile to examine the research in three categories instead of just two.

Woo et al. (2008) found a gap in perception between students and instructors on the subject of online learning, and Jahnke (2010) found that students saw the experience as a positive one. The subject of collaboration was considered by Riley (2006), and Jahnke (2010). Finally, the subject of critical thinking skills was dealt with by Anderson (2009), Kaynar and Sumerli (2010), Greenlaw and DeLoach (2003), and Riley (2006).

### Perception of Online Learning

Woo et al. (2008) found instructors and students feel very differently about the use of technology for learning as noted in their study, "Web-based lecture technologies: Blurring the boundaries between face-to-face and distance learning." The research question of interest in this study was, do internal and external students have different perceptions of the benefits of WBLT (web based learning technology) for learning? In their study, which was both qualitative and quantitative, they administered student and staff surveys and conducted "in-depth interviews with both students and staff (Woo et al., 2008, p. 83). Their study included 702 face-to-face students and 113 distance students from four Australian universities. One hundred and fifty-five

teachers who instructed with WBLT responded to the survey, which was just less than 23%. They used “stratified sampling” to “identify a range of course/units” (Woo et al, 2008, p. 85). Subjects fell into the following characteristics: they came from “broad discipline areas”, were members of classes of more than 50 and less than 200, were either considered internal or external students, (internal students had some access to online learning), and were either graduate or undergraduate students (Woo et al. p. 84).

To analyze the data, they used a statistical package called SPSS (originally named Statistical Package for Social Sciences). According to Woo et al. (2008) “Factorial analysis, analysis of variance and regression analysis were used to further explore the relationships between the independent and dependent variables” (p. 85). The researchers used a significance level of  $p < .001$  for any correlations in this study. They also employed a software package called NVivo to help them code and analyze their qualitative information (Woo et al., 2008, p. 85).

The researchers learned that instructors felt that students from their face-to-face classes would not utilize their on line lectures and might skip out on class. Face-to-face students, however, reported that they did use their technology appropriately when they could not attend class and were grateful that they had online access to things like lectures and assignments (Woo et al., 2008, 85-86). Only 47.5% of the staff reported “positive experience of staff”, 48.8% agreed that it was “easier to learn” for students, and only 30.2% agreed that students “achieved better results” with online and face-to-face instruction combined (Woo et al., 2008, p. 86). There was a significant difference in how instructors thought students used online resources and how students reported to use online resources.

The student data was divided between face-to-face students and online students. An average for ALL students was also reported. The researchers found that for online students,

76.9% of the students agreed that they had a “positive experience” and said that it was “easier to learn” and 65.6% agreed that they were able to “achieve better results” by supplementing their learning with online resources (Woo et l. p. 85).

The students that were registered fully online also reported that they had generally positive experiences. The results were that 72.6% agreed that they had a “positive experience,” 82.5% said it was “easier to learn” and 73.8% said that they “achieve[d] better results” (Woo et l. p. 85).

This study did have a low return rate for both teachers and students, but given the final number of students who responded, this study yields important information on this subject. The surveys were aligned to have similar questions, exact when possible, and the researchers concluded that students and instructors had different attitudes towards online learning. That is, students are excited about it and staff, are hesitant, especially for students that are face-to-face and online. However, one instructor reported that he thought the use of online schooling was “brilliant” for those who used online instruction alone (Woo et al., 2008, p. 86). The researchers thought that the professors felt this way because they trusted that online students were more structured.

One issue present with this study by Woo et al. is that there is no data to reconcile the differences in how the professors felt about the achievement of their fully online students and the face-to-face students. It would have been beneficial to know if professors were right to assume that their face-to-face students were skipping class and not viewing their lectures online.

In a small scale study by Jennie Jahnke (2011), “Student perceptions of the impact of online discussion forum participation on learning outcomes,” Jahnke wanted to learn how online discussion forums would affect student learning. The study was a very small, qualitative study in

which 33 “year twelve” students participated in the online discussion forum and seven were chosen to participate in face-to-face interviews at the end of their participation. (Jahnke, 2010, p. 28). These students were enrolled in a school where the student to laptop ratio is 1:1. They were allowed to look at their archived discussions when answering the open ended interview questions and/or asked to reflect on their experiences. Aside from finding that online discussion forums “demonstrated significant opportunities for improved learning outcomes in student intellectual, social and emotional development”, (Jahnke, 2010, p. 33) Jahnke also found that the students themselves were “aware of the opportunities offered and possible constraints” in an online learning situation (Jahnke, 2010, p. 34). The researcher here was particularly interested to find out that students even reported that their face-to-face social interactions were made easier by their ease at working in the online forums. (Jahnke, 2010).

The problem with this study is that it is very small scale and was probably a sample of convenience. Therefore, it is difficult to know how accurate the results would be for a larger demographic. Another issue with this research is that students were in different online forums, not the same one. So the differences in achievement could have been because the subject matter was easier or more difficult for that particular learner.

In the small scale study “Reflection Using an Online Discussion Forum: Impact on Student Learning and Satisfaction” by Lynn Bye, Shelley Smith, and Hellen Rallis (2009), research supports that students in a face-to-face classroom who use asynchronous online discussion for reflection outside of class perceive higher levels of mastery in the content of a course than students who write traditional reflection papers.

This quasi-experimental study used two class sections of the same course taught by the same instructor. Both classes met with the instructor for three hours a week. The control group

was assigned reflection papers to be handed into the professor for feedback. The same assignment was given to the experimental group, however they were using asynchronous discussion, and feedback was provided by other students and the professor (Bye et al., 2009).

T-tests were used to analyze the results. It was found that there was a statistically significant difference,  $t(23)=1.097$ ,  $p=.005$ ), between the perception of content mastery between the control and experimental groups (Bye et al, 2009, p. 847). The experimental group reported higher levels of mastery. Interestingly, satisfaction did not vary between the two groups.

There were a few limitations to this study. The classes offered were the same, but the time of day that the two sections met was quite different. One class was held in the afternoon, while the other was a night course. Another limitation that may have affected the outcome of this study was that there was an age difference in the students in each section. The day class (and control group) had younger students (they averaged 24.5 ) while the night class had older students (They averaged 33 years of age (Bye et al., 2009, p. 846). In addition to the age difference of the subjects, no data was collected about the outside-of-class obligations which students may or may not have had. These things could have also played a role in how successful a student felt.

Despite any problems with these studies, all three studies seem to support the idea that technology can affect the student perception of their learning. They do show that students are ready for technology and not afraid to use it. Their perceptions of online school are positive ones. Jahnke (2010) and Woo et al. (2008) both found that students are even capable of recognizing the difficulties and limitations that online learning may have. In both cases students seemed to use their online resources responsibly. Bye et al. (2009) found that students' perceptions of a



class can be altered by the use of asynchronous discussion. All three studies show that the use of online learning may positively affect student learning.

### **Collaboration**

In a small scale study called “Methods for evaluating critical learning using online discussion forums,” Nigel Riley (2006) “aims to establish whether students aged 10 to 11 years old benefit from using e-learning strategies to collaboratively discuss Internet research in the construction and representation of knowledge through an online discussion format” (p. 66). In this study, 29 urban students in the UK who regularly use computers for school work were chosen. The students were from various “academic attainment” and “social backgrounds” (Riley, 2006, p. 66). Students were asked to make concept maps using *Inspiration* software before and after their e-learning experiences. The task given to the students was to “define the parameters of what global citizenship means to the class and to develop web pages representing their views in pairs or small groups” (Riley, 2006, p. 67). There was a forum set up so that students could share their ideas and research. The forum was open for 27 days and the 29 students in class wrote in the forum 205 times total. The researchers analyzed the 205 entries qualitatively “against the dialogical framework for social modes of thinking” (Riley, 2006, p. 69). They then categorized the “types of talk” into three categories, disputational talk, cumulative talk, and exploratory talk” (Riley, 2006).

Riley (2006) found that cumulative and exploratory talk increased over the course the project, which indicated that there was “a progression in social interaction within the forum to a state where learning and knowledge building take place” (p. 69). He concluded that discussion with peers in discussion forums can develop into the types of talk that increase learning and critical thinking skills.

A limitation with this study is that the sample size was small, but this researcher does state that his research is not intended to generalize. The researcher did feel that the study was valid because it applies to everyday study and isn't "different" or "special" (p. 66)

In previously described study by Jennie Jahnke titled, "Student perceptions of the impact of online learning discussion forum participation on learning outcomes," the topic of collaboration was in important one. As mentioned earlier, this study was conducted using 33 students in a school that has one lap top computer for each student.

In this study, Jahnke (2010) found that "social interaction and emotional awareness were recognized as much a part of the learning process as engagement in academic analysis of the Extended Essay topic" (p. 29). In this research, Jahnke (2010) explores the idea that collaboration is what helps students "access other opinions and information not residing within the classroom or the teacher" (p. 29). Geer (2005) said that, "Collaboration encourages learners to move to the higher levels of cognition made possible by the intensity of the exchanges in arriving at a consensus" (quoted in Jahnke, 2001, p. 30). Jahnke's subjects reported that they felt that their collaboration led them to feel as if their online discussions promoted a "collective intelligence" which had "an important influence on learning" (Jahnke, 2010, p. 31). Jahnke's subjects also felt that the online discussion forum encouraged students to take their conversations into the face-to-face learning environment (Jahnke, 2010). Jahnke concluded that using an online discussion forum is not "a superficial activity and that engagement in a range of dimensions is afforded by the online environment" (Jahnke,2010, p. 33). In other words, online discussion forums are very useful in helping students to actually learn something.

Both Riley and Jahnke use small scale studies to show that online discussion forums are a useful way to use collaboration. They also find that through the collaboration in their online discussions, their students were able to increase their critical thinking skills.

### **Critical Thinking Skills**

In a study “Teaching critical thinking with electronic discussion,” Greenlaw and DeLoach (2003) set out to find out if online discussion can help students develop critical thinking skills (Greenlaw and DeLoach, 2003, p. 36). Greenlaw and DeLoach, (2003) define online discussion as “a collaborative class activity organized to explore an issue, using an electronic medium...” (p. 36). This study was conducted between spring 1998 and spring 2000, where the researchers held 10 electronic discussions in college economics classes. Each discussion averaged about 200 posts each and lasted about 16 days. Each student who participated in the discussion posted about six times; the classes were about 30 students (Greenlaw and DeLoach, 2003). Any other specific information about the students in this study was not included in this article.

In this study the researchers look at the level at which students actually argue. They describe six levels of argument: unilateral, simplistic, basic analysis, theoretical inference, empirical, and finally, merging values with analysis. They then qualitatively analyzed the student posts. Greenlaw and DeLoach’s hypothesis was that “when used effectively, electronic discussion can provide a natural framework for teaching critical thinking to a group, capturing the best features of traditional writing assignments and in-class discussions.” (Greenlaw and DeLoach, 2003, p. 41). Part of the reason they felt this way was because they figured that the learners would have access to student thoughts and ideas and not be swayed by the beliefs or ideas of their professor (Greenlaw and DeLoach, 2003). Another reason they thought that

discussion forums may lead to higher level thinking was because electronic discussions force students to either support or oppose other students' ideas, making them become more "complex thinker[s]" after a few assignments (Greenlaw and DeLoach, 2003). They conclude that electronic discussion can provide the framework to teach critical thinking, and to "evaluate learning outcomes," but they report that the "attempt to formally assess whether these activities lead to higher levels of critical thinking is beyond the scope of the present study..." (Greenlaw and DeLoach, 2003, p. 47).

In a meta-analysis by Martin A. Anderson titled, "Asynchronous discussion forums: Success factors, outcomes, assessments and limitations," Anderson reviewed literature concerning a number of topics. His section on deeper/higher learning was of specific interest. It was found by Webb et al. (2004) as referenced in Anderson (2009) that "as participation in the asynchronous discussion forums increases so do the measured grades for the learners (p. 251). In two other studies both by Schellens and Valcke (2005; 2006), as referenced by Anderson (2009), they found that students in asynchronous discussion were likely to use "higher phrases of creation" when they participated in task-based activities" (p. 252). They also found groups that participated in the discussions more had evidence of "higher level knowledge construction" (Anderson, 2009, p. 252).

One other important component when researching the effectiveness of online learning is the role of the instructor. Zhu (2006), as referenced in Anderson (2009), found that the levels at which students are connected with each other is highly dependent on how the instructor fosters the atmosphere and interacts with the students (p. 252). Zhu (2006) also concludes that the instructor's design is even more important than the technology's design. Zhu argues that

“knowledge construction only occurs because of careful planning: clear, well-defined, well-crafted questions and discussion topics” (p. 252).

In this meta-analysis, Anderson (2009) also reports there are limitations with online discussion forums in teaching critical thinking. He says that to make sure that higher level thinking is possible, the forum must be analyzed specifically. One advantage he notes is that online discussion forums give students who like to take their time to answer questions the atmosphere to do so. Ultimately, he concludes that not all classes lend themselves to an online format. He thinks that blended learning (learning that would use both face-to-face learning and online discussion) may be more useful in problem based classes.

In another meta-analysis, by Kaynar, and Sumerli (2010), the results were mixed. They read 24 studies that compared face-to-face learning to online learning (web based instruction). Of the 24 articles, 12 of them focused specifically on academic achievement in students as a variable. The findings were very different from the previously discussed articles. Kaynar and Sumerli found that three researchers/research groups, Akcay et al. (2006), Bartini (2006) and Gratton-Lavoie and Stanley (2009) found that there were some advantages to online learning. Akcay et al. (2006), actually concluded that web based learning was more effective than face-to-face instruction. On the other hand, 8 other researchers/research groups found that there was no significant difference in the student achievement between online learners and face-to-face learners (Kaynar and Sumerli, 2010). One group, Gratz et al. (1993) reported mixed results; face-to-face students scored better than online students in open ended questions, while online students scored better in calculations (as cited in Kaynar and Sumerli, 2010, p. 156). Despite the mixed results of their meta-analysis, Kaynar and Sumerli (2010) found that students' motivation may increase as they become more efficient with technology). These researchers also concluded that

in the field of education online instruction will not replace the classroom teacher, but may enhance education by “catering to different learning needs and styles” (Kaynar and Sumerli, 2010, p. 161).

This research suggests that there is adequate evidence to claim that online discussion forums may help students with higher levels of critical thinking, but the level at which this occurs is dependent on the individual instructor’s ability to create tasks and questions and maintain the online forum’s atmosphere. While Greenlaw and DeLoach (2003) and Anderson (2009) both report some evidence of higher level thinking going on, the meta-analysis by Kaynar and Sumerli (2010) shows that student achievement may vary quite a great deal from situation to situation. One problem with the final meta-analysis is that “student achievement” is not defined and may or may not encompass critical thinking. Still, the article gave some insight into the fact that teacher involvement is key.

### **Synthesis**

The four studies and two meta-analyses all examine some sort of learning outcome. While Woo et al. (2008) and Jahnke (2010) focus mainly on comparing how a student or staff member *feels* about his educational experience, they are also interested in the effect it has on student learning. Riley (2006) and Greenlaw and DeLoach (2003) are specifically interested in evaluating the use of online discussion forums to teach critical thinking. The meta-analyses by Kaynar and Sumerli (2010) and Anderson (2009) both identified their research as falling in to specific categories and both had a section devoted to a learning outcome, specifically “higher learning” and “student achievement” respectively. As the students become more technology savvy, teachers need to evaluate the use of that technology in their classrooms. These studies make that evident.

The initial questions posed about using technology effectively to improve students' ability in analyzing literature may not have been answered directly. However, these studies point out that if a professor or instructor carefully designs his online forum, higher thinking skills may be learned, which will be necessary for comprehensive literary analysis. Anderson (2009), Greenlaw and DeLoach (2003), and Kaynar and Sumerli (2010) all address the issue of the role of the instructor, which helps clarify the importance of the role teachers play in online forum design when using online instruction in addition to the face-to-face instruction.

## **Chapter 3: Project Description and Methodology**

### **Role of the Researcher**

As the use of technology for online education becomes more popular, it becomes increasingly important that instructors understand how to effectively use technology. In a small school district in south central Wisconsin, teachers have been given access to an online course management system (CMS) called Moodle. Teachers have also been encouraged to use Moodle in the classroom for online discussion forums, quizzes, projects and collaborative learning experiences. Only a few teachers have begun the process of using Moodle in that district because it is not clear that using this CMS in the classroom is any different than not using it at all. This study is being conducted to look for evidence to see whether or not combining the use of the CMS Moodle and traditional face-to-face methods for novel discussion has any benefits to student learning and enjoyment.

### **Sample Description**

The sample for this study is made up of students from a small rural school. Students in this study were in an advanced class, but students are not required to take prerequisite courses or obtain approval to enter the class, therefore, they had various reading and comprehension levels. Parental involvement at the school varies, but the students in the classes used in this study had involved parents. Many of the subjects of this study had a high level of other responsibilities including, but not limited to, babysitting smaller siblings, participation in sports, participation in the National Honor Society, other high level course study, jobs outside of school or the home, and farming chores. There were 14 male and 24 female participants in this study. The participants were 16-17 years of age. All students' classified themselves as WNH (White Non-Hispanic) on their profile for the school district.



## **Project Description**

This study will discuss the results of two classes of Advanced English 11 students. It will be important to recognize the reading level of each student before the study begins, so students' reading comprehension scores will be examined. Map tests and WKCE test scores are on file for each student and will be consulted prior to the beginning of the study so that any differences in skill levels between the two groups can be taken into account.

During this study, students will read two novels: *The Scarlet Letter* by Nathaniel Hawthorne, and *The Great Gatsby* by F. Scott Fitzgerald. Both groups will read one novel using traditional face-to-face methods and then one novel using technology. Group one will read *The Scarlet Letter*, and group two will read *The Great Gatsby*. A survey will be conducted before the face-to-face phase of the study begins. The survey will include questions about reading enjoyment, comprehension, and class discussion. This survey will establish a baseline for the students comfort level using face-to-face and online learning methods.

To keep track of the level of students' comprehension of the material, classroom discussion will be monitored. The instructor will fill out a chart that counts the frequency of the contribution of each student and the level of the comment the student made. A new chart will be filled out for each discussion day. Students will also write weekly reflections that only the instructor will read. Comprehension quizzes will also be administered weekly. A final test will also be administered for each novel.

In the phase of the study which uses the combination of the traditional face-to-face method and the CMS method, group one will read *The Great Gatsby*, and group two will read *The Scarlet Letter*. The structure of this phase of the study will be similar to the face-to-face phase in that students will have the same size reading assignments and the same amount of

required reading responses, but the way in which students will interact with each other will be different. Students will respond to each other's writing reflection through the use of Moodle. Their discussions will be tracked and the frequency of student responses will be counted. Some class time will be allotted to written responses, though some may be necessary outside of class. If students do not have access to computers at home they may use study hall time to use a computer in the library or in a classroom.

The level at which students respond will also be examined. In a study by Joy Bowers Campbell (2011) called "Take it out of Class: Exploring Virtual Literature Circles", Bowers Campbell looked for the number of connections students made with the literature and coded their responses. She was able to categorize the connections as Text-to-Self (TS), Text-to-Text(TT), Text-to-World (TW) and Aesthetic Reading (AR). This study will look for similar trends in the written responses of the students to help determine the level at which students are responding to the literature and each other.

After the CMS phase of the study, students will respond to a forum discussion on their views of the advantages and disadvantages of online discussion forums. To determine the overall feeling of the students towards forum discussions all responses will be coded, and the frequency of their statements will be counted.

### **Data Analysis**

To determine if there is an increase in the subjects' analytical abilities after combining teaching methods, the researcher will compare the written forum responses and oral responses from all class discussions. The researcher will look for a change in the level of comment as well as the frequency of the subjects' comments. To do this, the researcher will rate and categorize the responses using the previously discussed codes: (TS), (TT), (TW) (AR). In addition to these

evaluations, essay responses from the tests will be compared between different classes reading the same novels and the same classes reading different novels. These will be scored in points, and the class averages will be calculated.

To determine if there is an increase in the subjects' skills on objective tests, objective tests scores will be compared between different classes reading the same novels and the same class reading different novels. Class averages will be calculated.

### **Limitations**

There may be a few limitations in this study. Small sample is always of concern. The number of subjects in this study will depend on the number of willing participants in two advanced English classes. Class sizes are usually similar, but in some cases class sizes are not even and the ability level of students within the class may also be somewhat uneven.

One other possible limitation is that students' analytical skills may be improving over time. This may affect the results because of the order in which the researcher conducts the phases of this study. The face-to-face phase of this study will be conducted first, followed by the combined method, which uses both the face-to-face method and the Course Management System. To check for growth within the phases, the researcher will examine weekly discussions and weekly responses to see which phase shows evidence of faster or more growth.

Another possible limitation may be the each student's willingness to participate or complete the assignments associated with each phase. Frequent absences from discussion or inability to access computers when needed could affect the results of the study.

### **Conclusion**

It is the hypothesis of the researcher that there will be a significant difference in the ability of the subjects in understanding and analyzing difficult texts between the two phases. The

combination of face-to-face methods with Course Management Systems, or distance learning methods, will probably yield better results than the exclusive use of the face-to-face method. It is hoped that significant findings will be evident in this study, and that this study may help encourage teachers who are uncomfortable using technology to experiment with technological methods to improve their teaching practices.

## **Chapter 4: Results**

### **Introduction and Overview**

This study is both qualitative and quantitative. The first portion of the discussion is dedicated to some important observations made during the study and is arranged by addressing each research question one at a time. The second portion of this discussion is dedicated to test scores and looking for specific improvements in analytical abilities in the students.

### **Research Questions**

1. How can online discussion forums be used to help students increase their skills in analyzing difficult texts?
2. How can online learning be used to effectively help students?
- 3 How can online discussion forums be used in conjunction with face-to-face education to meet the individual needs of students and increase their understanding in the content of their English classes.

### **Discussion- Classroom Discussions versus Online Forum Participation**

The first research question addressed in this study deals with the possibility of online discussion increasing the skills of students to analyze difficult texts. It was noted earlier that, "...good teaching involves creating environments in which students take mindful effort towards developing their understanding, and have opportunities to learn how to apply their knowledge and when to do so" (Serim, 2003, p. 105). In this study both face-to-face and online environments were present. During the first stage of this study, both classrooms were using a more traditional face-to-face discussion method. During this phase it was common to see the same students participating in the aloud discussions day after day. The students began to develop patterns with which were comfortable with, and those patterns remained consistent unless the

instructor intervened. Three groups of students started to emerge. Group one contained students who were happy to participate in oral discussion and did so daily. Group two consisted of students who offered knowledgeable responses but wouldn't contribute (or rarely contribute) unless called on, and group three consisted of students who would not contribute even when they were called on. The students in group three seemed to be struggling to make significant connections to the book. Some struggled with plot, while others understood what was happening but were unable to see the deeper meanings of the texts.

During the second phase of the study students were using traditional face-to-face discussion methods in addition to online discussion forums. The questions presented in the online forum were be similar in nature to the oral discussion questions. Some of the questions in the forum were review and others were totally new opportunities for students to express their understanding and opinions about the plot, characters and symbolism in the story. The instructor began to see some changes in the students' discussion patterns. Notes were taken on the frequency and quality of the participation of the students (see Appendix). Also, it should be noted that any subject names mentioned in the pages to come have been changed to protect the privacy of the subjects and their families.

During the portion of the study where both online and classroom discussion were used, the students in the previously mentioned group three were making some improvements in their face-to-face discussion participation. This group made up 17.0% of the total population in this study. After examination of the discussion chart (Appendix), it was found that of the students in this group 57.1% made improvements in their participation habits. Ron, for example, would not have many answers for the oral discussions. When called on Ron would claim to have read the material but would say that he didn't get it. In the online discussion portion of the class, Ron

would strive for understanding. Though his responses were not always in full comprehension, and Ron was still struggling with his understanding of the novel, his effort to understand was beginning to increase. His written responses were longer than any oral response ever given in class. After examination of Ron's online post, his understanding of the plot was also better, though Ron did still struggle with understanding symbolism. What was evident in the online environment is that Ron, and students like Ron, did ask questions and admit their struggles in the forum. Then other students would jump in and offer their interpretations of the novel to help Ron. The online environment and discussion helped students in group three see examples of high quality work, make comparisons to their own work and make efforts to improve their analytical skills. Their online discussions were superior to their almost non-existent participation in the oral discussions. The online responses also gave the instructor a better idea of how to help them and in what areas they needed the most help.

Students in group two made some improvements in showcasing their understanding. This group of people understood the novel and did well on answering questions when called on. This group made up 43.9% of the total number of students in this study. After examination of the discussion chart and reading of the online forums, it was determined that the great majority of the students (88.8%) in group two, however, stayed about the same in their levels of understanding and did not increase their participation. Only 11% of the students in group two changed their participation habits for the better. One student particularly, seemed to increase her participation in the oral discussions during the online phase of the research. Alice previously participated only when called on, but during the online-discussion portion of the experiment her in class discussion habits increased. For instance, her questions did not get answers in the online

forums she would be sure to ask in class. Her questions wound up stimulating her involvement in later discussion during the hour.

The only real surprise came from one student in group one. Since group one already had a high rate of participation in classroom discussions, it was not surprising that they improved only slightly. This group made up 39.0% of the total sample population, and of that population, 18.7% made an increase in the frequency of their discussion participation. It was, however, surprising to find forum discussions that were not of high quality being produced by one student. That one student in particular, Daniel, offered great insights and demonstrated that he had a high level of understanding of many aspects of the book during oral discussion. During the discussion forums online, however, Daniel would be very concise. When approached on this topic, Daniel replied that he was “too lazy” to write everything down. He stated he saw the online discussion as “extra work” and “unnecessary”. He also asked, “If I get it, and you know I get it, then why do I have to write it?” Another student, Tom, in group one admitted feeling the same way but felt that it was important to keep his grade up, so he participated thoroughly in both the online discussion forums and in the oral discussions.

In summary, the online forums seem to supply the extra environment necessary for most students to practice and showcase their skills analyzing texts. Most students responded positively to the use of both environments to help them understand their novels on a deeper level.

The second research question involves effectively using the online environment in class. In this study it was observed that the burden of effectively combining face-to-face methods fell on both the teacher and the students. The teacher must arrange questions in a way that calls for student to use critical thinking skills, he/she must respond to the students’ questions and correct students when necessary. Students must be honest and read their materials prior to entering the



discussions for each forum, or the forum will not help them increase their understanding of the text or their critical thinking skills. Heidi, for example, admitted that she didn't read the text prior to entering discussion. She said she used SparkNotes and then read the other students' responses. It was evident in her aloud discussion, forum discussion and test scores that she was not making many gains in her ability to comprehend plot or symbolism. On the other hand, many students were effectively using the forum.

The third research question deals with the specific issue of the individual needs of the students and using online forums to increase their understanding in the content of their English classes. Earlier it was discussed that the researcher saw the emergence of three different student groups within the two classes. The first group of students already possessed the skills necessary to analyze characters, plot and symbolism in the novels. The students in this category would most likely thrive in any type of classroom environment. Groups two and three, however, were in need of different discussion environments to develop and demonstrate their skills. It is probable that group two would have done well on their tests, but did not communicate what they knew with the class or with the instructor. Group three struggled in silence and needed a safe environment to ask questions and work on their communication skills. The emergence of these groups demonstrates that there were different needs present in the classroom. The online discussion forums provided students the opportunity to strive for such changes and made it possible for all students to find an environment in which they were comfortable working. It also made it clear to the instructor which students needed help in which areas.

## **Discussion—Test and Survey Results**

The final tests for the units were divided into multiple choice questions and essay questions. The multiple choice questions were largely focused on critical thinking, reading skills and the understanding of plot, character and setting.

The essay questions were to determine the analytical skills of the students. The essays were evaluated on a 15 point scale. Those earning 15 points possessed the ability to make strong connections to the text, showed understanding of metaphorical and symbolic elements of the story, may have mentioned other opinions from class discussions, made connections between the class text and other texts and supported their arguments with multiple examples. Those earning 12-14 points may have made some connections to the text, understood some of the metaphorical and symbolic elements of the story, may have mentioned other opinions and viewpoints from previous class discussions and gave some support to their arguments with examples. Those earning 11 or fewer points were struggling to make connections to the text, lacked an understanding of the metaphorical and symbolic elements of the novel and did not/were unable support their points with enough quality examples. It should be noted that no student earned less than 10 points.

The multiple choice portion of the test will be discussed first. The students' tests did not show improvements as hypothesized. The results were examined in two different ways. First, the class averages were examined for the same group of readers (but a different novel), using different teaching methods. Second, the class test averages were examined using different groups of readers (but the same novel), and different methods (See fig. 1).

It was found that when the teachers compared the results for the same group of readers and two different teaching methods both groups had better test scores with the traditional face-to-

face units. In the first class, students averaged 89.84% in their traditional teaching unit and 83.89% in their combination unit; a decrease of 5.95%. In the second class, students averaged 89.56% in their traditional face-to-face unit and 89.25% in their combination unit; a decrease of .31%, which was minimal.

The researcher found it important to also compare the same novel using two different teaching methods in case there was a preference of one novel over the other by the subjects. It was found that when different teaching methods were utilized on the same novel, that the face-to-face teaching method still had slightly better results. In *The Scarlet Letter* unit, the class average was 89.84% for the face-to-face method and 89.25% for the combination method; a decrease of .59%. In *The Great Gatsby* unit, the class average was 89.56% for the face-face teaching method and 83.89% for the combination unit; a decrease of 5.67%. These differences do not seem to indicate a large discrepancy though.

Fig. 1 *Multiple Choice Test Class Averages (%)*

Class (# of students)	Face-to-face unit class av.		Combination unit class av.	
Class 1 (25)	Scarlet Letter	89.84%	Great Gatsby	83.89%
Class 2 (16)	Great Gatsby	89.56%	Scarlet Letter	89.25%

It was found that when the teachers compared results of the essay questions for the same group of readers and two different teaching methods, both groups scored higher with the combination method. In the first class, students averaged 13.2 in their traditional teaching unit, and 13.80 in their combination unit; a slight increase of .6 points. In the second class, students averaged 13.19 points on their essays in the traditional face-to-face unit, and 14.09 points in their combination unit; a larger gain of .9 points.

As with the multiple choice tests, the researcher found it important to also compare the same novel using two different teaching methods in case there was a preference of one novel over the other by the subjects. It was found that when different teaching methods were utilized on the same novel, that the combination method still yielded better essay results. In *The Scarlet Letter* unit, the class average was 13.2 points for the face-to-face method and 14.09 points for the combination method, a gain of 1.07 points. In *The Great Gatsby* unit, the class average was 13.19 for the face-face teaching method and 13.80 for the combination unit, showing an increase of .61 points.

Fig. 2 *Essay test class average (# of points)*

Class (# of students)	Face-to-face unit class av.		Combination unit class av.	
Class 1 (25)	Scarlet Letter	13.2	Great Gatsby	13.80
Class 2 (16)	Great Gatsby	13.19	Scarlet Letter	14.09

### Discussion-Moodle Forum Survey

After using the Course Management System (CMS) Moodle, students were asked to respond to the following prompt: *Describe your Moodle experience. What do you see as some advantages and disadvantages of participating in discussions online?* The students were not asked to respond in any specific length. All students wrote their responses in paragraph form.

Of the 41 students in both groups, 40 of the students responded to this question. The researcher found it necessary to code responses and count the number of times that response was repeated in the forum discussion to make it easier to identify how students felt about their experiences with Moodle. Examination of the forum response to the above question shows that students reported more advantages to online discussion than disadvantages. This is important

because it shows how students perceive their own educational experiences rather than how others perceive the students' experiences. These results show that there are specific advantages to combining face-to-face teaching methods with online teaching methods.

According to the reported disadvantages of the usage of online learning methods, students had a few concerns (see fig. 3). The most heavily reported concern was about internet access. Of the 40 students who completed the survey, 18 of them (45%) noted that it would be a disadvantage to students if they did not have internet access. Of those 18 students only two of them noted that they did not have full-time internet access. One student said that her reception was "off and on". Another reported that having a little brother to share computer access with was a strain. It was determined that this concern was a general concern reported by students, not one that affected 45% of the actual students. Again, only 2 of the 40 students (5%) in this study actually reported limited computer access.

The other disadvantages noted by students were considered by the researcher to be more specific to the actual students in the study. Ten students (25%) reported that their own procrastination to respond to online forums was a problem for them. They also commented that by waiting to the last minute they would sometimes skip reading others' comments and also rush their own responses. Other concerns seemed minor in comparison. Five students (12.5%) reported that they were worried about intellectual property, and 2 students (5%) were worried that their classmates did not take the discussions seriously.

Fig. 3 Coded Responses for Disadvantages of Using the CMS Moodle

Student responses (coded)	# of times mentioned
Student may not have internet access at home	18
Some students might wait until the last minute (not enough effort)	10
Online discussion not as fluid as live. (lag time in response)	9
Student might take others' ideas for their own responses	5
Some may not take discussion seriously	2
TOTAL number of reported disadvantages	44

Fig. 4 Coded Responses for Advantages of Using the CMS Moodle

Student responses (coded)	# of times mentioned
CMS gives everyone a chance to speak (ones who do not participate)	17
Flexibility to do work (when, how)	14
Increased think time	10
Helps increase understanding (synthesis)	7
Learn from others' ideas (collaboration)	4
Prepare for future college discussions online	3
Total number of reported advantages	55

According to the reported advantages of the online learning environment, students felt mostly positive about their Moodle experiences. Of the 40 students who responded to this question, 17 of the 40 (42.5%) noted that the online forum gave everyone the opportunity to participate equally. They also noted that there were a number of students who participate daily and a number of students who almost never participated. Another frequently reported advantage was that there was additional response time available to online forum users that were not available in traditional face-to-face discussions.

### **Conclusion**

According to the results of the multiple choice tests, this small scale study did not show that the combination of face-to-face teaching methods and online-teaching methods improved students' understandings of specific content pertaining to their novels. Observational notes taken

on the frequency and quality of oral discussions and the quality of online discussions did help the researcher determine that there were improvements for some students on an individual level when it came to increasing the participation habits and quality of class comments in an oral discussion. The essay results also showed an increase in the analytical skills of the students. Students were able to make more text-to-text connections and more text-to-self connections after the second phase of the study as well as understand the metaphorical and symbolic elements of their novels.

## Chapter 5: Conclusions

### Discussion

Though the results for this small scale study were not what the researcher expected, it was found that students did show improvements in their abilities to analyze difficult texts, and they found the online learning environment to be helpful. The hypothesis for this study was that there would be a significant difference in the ability of the subjects in understanding and analyzing difficult texts between the two phases of the study. It was also hypothesized that the combination of face-to-face methods with Course Management Systems, or distance learning methods, would yield better results than the exclusive use of the face-to-face method. The results of this study showed that there was an increase in the habits of the students during oral discussion from one phase to the next, and also that their analytical ability of the students did increase as a whole from one phase of the study to the next. However, it was not proven that the students would improve test scores. Not on all of their tests anyway.

The multiple choice test, which dealt with content knowledge and basic understandings of the plot, setting, and characters did not increase. One of the class averages in the study actually showed a sharp decrease. This has the researcher reflecting on possible reasons for such a sharp contrast. When looking at all four of the class averages in fig. 1, the average score for the combination unit shows a greater amount of variance than all the other scores. All of the other scores in that chart are less than a percentage point different, while that score is over five percentage points different. It is possible that the time of year and the excitement of spring break contributed to the results of this test.

In both sections of Advanced English 11 during the second phase of this study, there was a struggle to keep up with the reading schedule. The researcher suspected that this was the case



during the first phase. However in the face-to-face discussion format, some students were able to allow the students in group one to carry discussion during class and then caught up on the readings after the fact, or skipped sections and jumped ahead to catch up with the schedule. The addition of the required forum discussions, however, did prompt students to communicate with the teacher more about their needs. Students in both sections of Advanced English 11 asked for time extensions. They also entered forums when they were ready since the discussions were all left open for the entire duration of the unit. This gave the students some leeway in their time management and gave them some extra time to think about their responses which in turn made their responses more thorough.

The essay test did, however, fall in line with the hypothesis. Both classes did better on their essay tests after the second phase of the study. Since the essay mainly focuses on the analytical skills and the multiple choice test mostly on content, it seems that the combination of using traditional face-to-face teaching methods and online teaching methods is more likely to help students with their analytical skills than their content knowledge.

### **Limitations**

There were a number of limitations for this study. The samples size was of concern. It was a sample size of 41 students, all of which were of a higher academic level. This seemed to be a possible cause for the test and essay scores to be close in range.

Another issue that may have caused some limitations is that gender was not accounted for as a possible influence. Since there was an unequal number of males and females in the two classes, this may or may not have played a role in the results. One of the classes was nearly evenly divided by gender, but the other had only 3 male participants out of 16 total participants. In addition to the imbalance in the gender of the classrooms, one group was a bit larger than the

other. One group held 25 students while the other only 16. Class average numbers may have been skewed slightly due to this arrangement.

### **Recommendations**

It is the recommendation of the researcher that further studies use a group of regular education students as opposed to a group of advanced learners. It is difficult to gage the gains of already high functioning students. Usage of a sample made up of various skill levels may have been helpful to illustrate gains (or the lack of gains) made by the students after phase two. In addition to balancing the groups in number and skill levels, balancing the male to female ratio should be considered. To avoid the problem of differences in the different novels, a repeat of the study should maintain the same curricular format for both groups.

It is also the recommendation of the researcher to use better balanced groups if possible according to various demographics.

### **Final Conclusion**

Through this study, it was learned that the addition of the online discussion forums had more advantages than disadvantages. Despite the lack of measured gains for the objective test, other assessments such as in class discussions, discussion forums and essay writing showed positive results. The Moodle survey helped determine that the students themselves felt very positively about the experience of online discussion. Students even confirmed the researcher's earlier observations that there were a number of students who did not participate in the live discussions that would wind up participating in the online discussions. The addition of the discussion forums also raised awareness and participation in a significant portion of the class. This raised awareness implies that gains may show up in other areas along the way.

Overall, it has been determined that it is more beneficial to students for teachers to utilize a combination of face-to-face teaching methods and online learning techniques, specifically forums, to help all students within the learning environment to improve their skills.

Improvements that were seen after phase two of the study were: participation behaviors in students increased in the two groups with lower levels of participation, essay responses were at a higher level, and student found that there were more positive advantages to the combination of online learning than the traditional face-to-face method.

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## Appendix

McMahon  
 Advanced English 11  
 Reading Survey

HOUR \_\_\_\_\_  
 Date \_\_\_\_\_

Directions:

Please fill out the following survey as accurately and honestly as possible. The purpose of this survey is to find out a few things about your reading. You do not need to include your name on this survey.

Please rate your feelings using the following 1-5 scale.

1-ALWAYS    2-ALMOST ALWAYS    3-SOMETIMES    4-ALMOST NEVER    5-NEVER

Question	Rating (1-5)
1. I enjoy reading novels.	
2. I enjoy class discussions	
3. I try to relate to the characters when I read novels.	
4. When I read one book, it reminds me of other books, characters, plots, etc.	
5. I think about things happening in other places or times in the world when I read.	
6. I notice good sentence structure when I read.	
7. I wonder about the author's intended meaning when I read.	
8. When I read, I spend time reflecting on the characters, setting, plot, etc.	
9. When I read, I notice differences/similarities in style from author to author.	
10. When I read difficult texts, I can figure out what is going on with little or no help.	
11. When I read, I like to discuss the readings with others.	
12. In general, I have a high level of understanding when I read.	
13. I struggle with vocabulary.	
14. I ask questions easily when working on a difficult text.	
15. During discussions, I tend to wait for others to ask questions and hope those questions are the same as mine.	
16. I am comfortable expressing my ideas to classmates and teachers.	
17. It doesn't bother me when I get a question wrong in class discussions.	
18. I am embarrassed when I misinterpret the meaning of a text.	
19. I enjoy working in groups.	
20. I want to know what others are thinking, but I don't ask them.	
21. I think I have great ideas, but I don't share them with classmates and teachers.	
22. I don't have great ideas.	
23. I am more comfortable speaking than writing to communicate my ideas.	
24. I am comfortable speaking <b>and</b> writing to communicate my ideas.	
25. I listen to other's interpretations of literature and form opinions on those ideas.	

(For teacher use only)

Survey summary:

Questions 1 and 2 relate to general enjoyment.

Questions 3-9 explore the way students think when reading.

Questions 10-13 relate to possible struggle points for students

Question 14-24 relate to discussion issues.

Question 25- relates to student listening.



