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Focus & Rationale

The Issue:

Today schools are under tremendous pressure to increase their graduation rates. Yet in many urban areas, the graduation rates are decreasing and drop-out rates are increasing. In an attempt to help struggling students recover credits that they failed in earlier semesters, many schools are turning to online curriculum and software programs designed to meet state requirements that also allow for multiple classes to be conducted in one computer lab. It is seen as a cost-effective way to offer credit recovery classes without hiring more staff. But the issue at hand is an important one: Is the use of online courses, like Compass Learning, effective with at-risk high school students? Do online courses have a positive effect on at-risk students? Do online courses help at-risk students become more confident in their academic abilities?

This issue has personal significance to me because I teach in my district's Alternative Education program. I have classes which I teach face-to-face in more traditional ways and online classes in which I act as more of a mentor. This past year many of my students struggled to pass the online classes despite admitting to me that they felt that they were "easier". I am not totally convinced that these classes are particularly helpful to at-risk students who often struggle to stay focused and engaged in the instruction. The way these classes are currently administered in my district also do not tend to be geared towards at-risk students but may be very successful for high achieving students who would benefit from an independent study type of situation. I am interested to see if this is an issue not only in my district but in other school districts. My hope is that the findings of this research project could help me create changes within the Alternative Education program to increase student success, whether that be changing the online software or perhaps tweaking the policies and practices for online classes in the program.

This issue also has practical significance for other teachers and schools that are using or looking into using online software as a means for credit recovery classes. Finding ways to improve upon our current set up would not only benefit our students, but if shared at conferences with colleagues, could benefit students in other districts. This information would also be useful to school boards and curriculum directors who are considering purchasing online software for their district.

Audience:

There are several intended audiences for this research project. First of all, the findings of this research project could be presented to my district's School Board at a Board of Education Meeting. The results of this work could also be shared at professional development meetings with staff as a catalyst for discussing policies to help at-risk students. Finally, this information could be presented to other educators who work with at-risk students at the Michigan Alternative Education Organization's yearly conference.

Sources:

To guide the project's direction, I intend to use previous studies that I have found in academic journals including *Quarterly Review of Distance Education, T H E Journal* [Technological Horizons In Education], and *American Journal of Distance Education.* I have found several articles by M.D. Roblyer, an author that has done several studies on virtual learning. Her work is also cited in many of the other scholarly articles I have found concerning online classes. I have also found several publications through the *International Association for K-12 Online Learning* including a report on the use of online classes with at-risk students and using online learning for credit recovery. *International Association for K-12 Online Learning* is a non-profit professional organization to promoting and improving online education. Finally, I have also found a study by Michael Barbour which is part of a series of larger studies on online classes. These sources have also been an excellent starting place for finding additional sources through their annotations and bibliographies. The databases of Proquest, ERIC, and mel.org have also been instrumental in finding quality scholarly articles.

Literature Review

Introduction

The national dropout rate is an alarming one. According to Bridgeland, DiIulio, and Morison (2006), "Each year, almost one third of all public high school students – and nearly one half of all blacks, Hispanics and Native Americans – fail to graduate from public high school with their class. Many of these students abandon school with less than two years to complete their high school education."(p.3) Bridgeland, DiIulio, and Morison (2006) also allege through their survey of 16-25 year old dropouts, that 88% of students dropped out with passing grades, indicating they had the potential but the structure of the current education system was not enough to keep them there.(p. 11)

Now picture yourself as a school leader. How do you combat these alarming statistics? One increasingly popular option that many schools and districts are offering to their at-risk students is enrollment in online or virtual classes as an alternate delivery method and credit recovery option. As the research will indicate, these classes can take many shapes and forms. Many seem to be cost-effective, often nearly paying for themselves, as noted by Watson and Gemin. (2008, p.16) When looking at whether or not online classes have a positive effect on at-risk students, one must first understand what it means to be an at-risk student and the many types of virtual classes and programs that are currently offered.

Perspectives

Concerning online and virtual classes, there are three important perspectives to take into account. The first has already been mentioned: that of the school and/or district leaders and administrators. Online classes are a cost-effective way to attract students back to school and increase state funding. (Watson and Gemin, 2008, p.16) But how do the actual users feel about the online/virtual format? One must consider the perspectives that both teachers and students have on virtual classes.

One teacher, Gail Green, did her own study of the online program she was using called ClassLive Pro. (Green, 2009) In her study, Green points out the benefits of the ClassLive Pro options for synchronous presentations to ensure all students are provided certain lesson but still allow for the asynchronous format that gives students and teachers more flexibility (Green, 2009, p.32-33) Another instructor, Rushton Hurley, also expressed her experience with a web-based online program, PLATO, but with mixed results. She describes the appeal of the program along with its challenges, noting the need for more staff specializing in each subject area to fully support the at-risk population. (Hurley, 2002, p. 38-40)

A variety of opinions and perspectives from teachers were also apparent in studies conducted by outside researchers. For example, in the study by Roblyer, Freeman, Donaldson, and Maddox (2007) it was found that 80% of teachers felt the online and interactive video conferencing classes met needs and goals of students and "increased student access to courses, increased student experience with technologies, and increased teacher experience with technologies".(p.266-267) However, while teachers might perceive that online classes meet academic needs, they do not always meet the social needs of students, as expressed by Mr. Harding, a teacher interviewed in the study by Journell (2010). Mr. Harding expressed his concern that students would miss out on the magic of the regular classroom, an idea summed up by Journell, "Based on his comments, Mr. Harding seemed to perceive e-learning as primarily a medium for transmitting content to students, one that paled in comparison to classroom instruction and did not provide the necessary social and emotional aspects that he believed were essential to an engaging learning experience." (Journell, 2010, p. 74)

Like the perspectives of teachers, students also had varying perspectives on online classes. In the study by Journell mentioned earlier students initially expressed that they thought online classes were easier but later reported that they were more difficult. As Journell explains, "for most of the students who confessed to struggling with the course, the primary reason was a lack of self motivation rather than difficulty with the academic requirements". (2010, p.76) In a study by Selma Vonderwell (2003), student perceptions that online classes were challenging stemmed from the asynchronous communications they had with their instructor and fellow classmates. Students reported being frustrated by the wait for instructor responses or work submissions from peers for assignments.(Vonderwell, 2010, p.82-83)

Vonderwell's study also helps to highlight the positive perceptions that students link to online classes. As one student in the study expressed, "It [online classroom] is free in being more anonymous and you can express your feelings and ask more questions without worrying about what other people think about you . . . I ask more questions [in the online class], so I am more clear on things and it just expands what I am learning." (Vonderwell, 2010, p.82) As reported by Barbour, students often feel satisfied with their online learning experiences and feel email and discussion forums are two tools that help them to be successful in the virtual classroom.(Barbour, 2008) Students also feel that online classes help them to think more deeply about discussions with their peers since they can refer back to them in the discussion forum, leading to what they felt were better constructed responses than those they would give in a face-to-face discussion.(Petrides, 2002, p.72) As noted by Charlene O'Hanlon, online courses give at-risk students a feeling that many of them lack: that they are in control and that their hard work can

pay off.(O'Hanlon 2009) The first taste of success is often all an at-risk student needs to know that he or she can be successful.

Pedagogy

From the literature, one can also learn a great deal about the pedagogy surrounding online classes. In a study published by the International Association for K-12 Online Learning, it is clear that several strategies should be used in online classes for at-risk youth. In the study, Archambault et. al. (2010) and Watson and Gemin (2008) argued that such programs should, as many others do, employ the following strategies:

1. Individualizing instruction based on strengths, weaknesses, and concepts already mastered.
2. Remediation of important concepts as needed.
3. Use of supportive faculty and staff to monitor success and have ongoing discussions with students and their families.
4. Mastery learning

As explained by Archambault et. al., the mastery learning approach is a strategy in which the focus is on student understanding where they "are provided with the opportunity to revise their work based on specific feedback until they meet the targeted outcomes"(2010, p.5) Therefore, remediation in a way is built in: students that do not master a concept must correct their mistakes until they have full understanding and as a result a passing grade.

Roblyer (2006) also argued that there were five additional strategies for ensuring success in online high school programs. These strategies included preparing students through the use of checklists and orientation programs to help them understand how to participate in the online format as well as preparing teachers through professional development in strategies for all types of online/virtual classes.(p.59-60) Roblyer (2006) also argued both teachers and students should be monitored for continued success and that teachers should use activities that are interactive and build flexibility into the course design.(p.60-62)

Other literature focuses on the types of at-risk and credit recovery programs that are available. As described by Dessoff (2009), there are face-to-face programs with a small online component, such as the SAFE program in Jackson, MI, fully online programs such as the Florida Virtual School, and blended programs such as the approach being taken in Omaha Public Schools.

Besides the types of at-risk/credit recovery programs, there is also literature that details the types of approaches to virtual and online classes that are available, including synchronous and asynchronous. When comparing both types of classes, Roblyer, Freeman, Donaldson, and Maddox (2007) found that, "synchronous and asynchronous formats have the potential to be equally effective and motivational to students."(p.267) It was further noted that the lack of difference in achievement in the two types of classes could be explained by teachers that truly use the benefits of each type to their full potential. Green (2009) indicates in her review of ClassLive Pro, that the synchronous tools allow teachers to create a virtual classroom that feels more like a traditional classroom through the use of voice over internet applications, video, and application sharing.(p.33-35)

Assessment

After reviewing the literature it is clear that there a several sources for collecting data and multiple ways to sort through the data on the effects of online classes on at-risk students. When looking at past assessments in this field, the first study to jump out is that of Roblyer, Davis, Mills, Marshall and Pape (2008) in which the researchers revised the method used in a previous study by Roblyer and Marshall in which they develop ESPRI, the Educational Success Prediction Instrument.(p.95) ESPRI was a survey with seventy items where participants (students) rated their responses to statements using a Likert scale ranging from one to seven.(Roblyer, Davis, et. al. 2008, p.95) For the new study Roblyer, Davis, Mills, Marshall and Pape, created ESPRI-V2 and eliminated items from the survey that did not contribute to the prediction result and added items concerning student characteristics that they felt would play a role in students' success. .(Roblyer, Davis, et. al. 2008, p.95) The researchers surveyed students enrolled in Virtual High School Global Consortium which has "over four hundred high schools in twenty-eight states and twenty-three countries".(p.95) Students were offered extra credit to participate in the survey and 70% of students completed the survey. The researchers then used a variety of methods including "descriptive statistics and frequency distributions, factor analyses, whole-instrument and component scale reliabilities, logistical regression, and calculations to determine success/failure probabilities based on contributing factors." (Roblyer, Davis, et. al. 2008, p.96) This study is an excellent example of research that is based on building upon past work. Due to the large number and wide geographical spread of the participants, it is difficult to argue that the results are specific to only one high school, age group, or geographic area.

Other studies in the literature also used surveys the utilized items with a Likert scale. This scale is also used in the study by Barbour to analyze student perceptions in online classes.(Barbour 2008) This study is also another good example of a study that builds upon past work. As Barbour explains, "This current study was a part of a larger initiative by an online learning research group at the University of Georgia. Prior versions of this study have been undertaken with postsecondary students (i.e., Song, Singleton, Hill, & Koh, 2003; Singleton et al., 2004) and with corporate Web-based trainees in the United States and in South Korea (i.e., Jones, Koh, Hill, & Singleton, 2004a, 2004b, 2004c, 2004d)."(Barbour, 2008, p.359) Barbour then analyzes the data in comparison with the previous studies, noting the similarities in the results. He notes that he modified the survey from the previous studies to be more relevant to the high school level students in the current study and reflects upon the similarities and differences in this study and its predecessors. (Barbour, 2008, p. 362-365) This not only gives the audience more insight to online learning as a whole, but also gives the study a sense of more validity.

An interesting issue brought up in "Online high school programs that work" by M.D. Roblyer (2006). In his article he makes light of the idea that schools and districts nationwide are using different ways to compute drop-out rates, creating very different statistics as a result.(Roblyer, 2006, p.58) The articles points out that some schools consider any student who starts a class but does not finish as a dropout while other schools have an add-drop period, and dropouts are only counted after that period. (Roblyer, 2006, p.58) This issue is also brought up in The Silent Epidemic by Bridgeland, DiIulio, and Morison, where they claim the public does not understand how severe the dropout rate problem is because the data and statistics are not accurate. (Bridge-

land, DiIulio, and Morison, 2006, p.9) The data must be clarified in order for educators and policy makers to effectively address this issue.

It is clear that prior research in this field relies on data directly from schools and on survey and interview data. It is also important to note the effort made to continue and build upon previous studies. Data in prior research is usually displayed in tables for easy reference by the audience.

Conclusions

Prior studies concerning online classes have focused mainly on the perspectives of teachers and college students. Both teachers and students indicate that they like the flexibility of an online class. Credit recovery programs geared towards at-risk youth also cite flexibility as a helpful characteristic of the online format. And though research indicates that more and more schools are using online classes to service at-risk students and entice dropouts back to school, little is known how these students feel about the classes themselves. This raises several questions to think about when considering conducting new research:

- Do at-risk students find the online format helpful or difficult?
- What are the success rates for at-risk students and online classes?
- Do at-risk students feel the online format works better for them than a traditional classroom?

Based on the literature and prior research, much can be learned about research design. Specifically from the work by Barbour and the various articles that were co-authored by Roblyer, it is clear that surveys and interviews should be used to gather qualitative data from both students and teachers. As indicated by Roblyer, Davis, Mills, Marshall, and Pape, a Likert scale is essential when constructing the surveys for ease of analyzing the data that is collected. The prominent use of Likert scales in prior studies, including most studies covered in the literature review, signify their reliability in indicating student and teacher attitudes towards online classes. Interviews and surveys have proved to be helpful in the past and should be considered as part of the research design to determine the effectiveness of online classes with at-risk students. Surveys should be constructed carefully to include questions and items that reveal clear understanding about the success of online classes with at-risk students. The survey should utilize a Likert scale for a reliable indicator of student attitudes towards online classes.

Finally, it is clear from reviewing the literature that very little research has been done about online classes for at-risk students. While the reports from the International Association for K-12 Online Learning review programs that currently use online classes for at-risk students, I was unable to find a study that asked for feedback from at-risk students either through surveys or interviews. It is clear that this should become a central portion of my research design.

Annotated Summary

1. Archambault, L., Diamond, D., Brown, R., Cavanaugh, C., Coffey, M., Foures-Aalbu, D., . . . (2010). Research committee issues brief: An exploration of at-risk learners and online education. *International Association for K-12 Online Learning*. Retrieved from http://www.inacol.org/research/docs/iNACOL_AtRiskStudentOnlineResearch.pdf

This is a report written by the International Association for K-12 Online Learning (iNACOL) Research Committee. It reviews the many definitions for "at-risk" students and the factors that increase a student's risk of failing. It also reviews strategies for supporting and teaching at-risk students, including individualizing instruction, remediating weak concepts, and providing support teams to monitor student success. It also reviews the use of the pedagogy of mastery learning where students continually revise their work using feedback until understanding is achieved. The report also discusses a large list of interventions that online programs around the country use to help their at-risk students as well as professional development for staff that work with that population. The report looks at several programs and how they adapt to helping at-risk students as well as common problems they all face.

2. Barbour, M. K. (2008). Secondary students' perceptions of web-based learning. *Quarterly Review of Distance Education, 9*(4), 357-357-371. Retrieved from http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/61803682?accountid=12598

   This article details a study of secondary students who were surveyed about their experiences and perceptions about virtual classes they had taken. The survey results were compared with three other similar studies conducted by the same research group at different locations and grade levels. The study found that most students were happy with the online experience and felt email and the virtual classroom were the two features that were the most help to them. Though most students were satisfied with the online class, they did report technical difficulties and problems understanding objectives as two challenges they faced.

3. Bridgeland, J. M., DiIulio, J. J., & Morison, K. B. (2006). The silent epidemic: Perspectives of high school dropouts. Civic Enterprises. Retrieved from http://www.civicenterprises.net/pdfs/thesilentepidemic3-06.pdf

   This report which was written for the Bill & Melinda Gates Foundation looks at the problem of student drop outs in the United States. It provides eye opening statistics about the rate of student dropouts and their impact on the country and our economy. It explores reasons students drop out of high school and makes note that not all students who drop out are bad students; a large number of them having C's or better when they dropped out. The report also explains that attendance patterns can be an indicator as to which students are at-risk of dropping out. The report also explores the regrets that students who dropped out had about not finishing school and what they believe needs to be done to keep more kids in school. For example, the report indicates that dropouts believe smaller classes and more individualized instruction are just two of many ways schools can improve dropout rates.

4. Dessoff, A. (2009, Oct.) Reaching graduation with credit recovery: districts provide the latest programs to help failing students succeed. *District Administration*, (Vol. 45). (9), 43. Retrieved from http://go.galegroup.com.proxy2.cl.msu.edu/ps/i.do?id=GALE%7CA210723354&v=2.1&u=msu_main&it=r&p=PROF&sw=w

This article expresses the growing need for credit recovery programs, as over one million students drop out each year. Acknowledging that many districts are turning to online solutions, the article goes on to explore three types of credit recovery programs: face-to-face with an online component, fully online, and a blended approach. The article explains each type of credit recovery and then gives a real-life example of a school or district that is utilizing that type.

5. Green, G. Y. (2009, Jan.) Engaging online high school students with the use of ClassLive pro powered by Elluminate. *Distance Learning*, (Vol. 6). (1), 31. Retrieved from http://search.proquest.com.proxy1.cl.msu.edu/docview/230699783/fulltextPDF/130D6B3A69D1E48FF8A/1?accountid=12598

   This article discusses the use of a program called ClassLive Pro in Gwinett County Public Schools in Georgia. In the article, Gail Green, a Gwinett County Schools instructor and doctoral student, reviews the benefits and functions of the online program. The article explains how ClassLive pro can be used to create a synchronous online program that allows teachers to create a virtual classroom that feels more like a traditional classroom through the use of voice over internet applications, video, and application sharing. In the article Green argues that the benefits of the ClassLive pro program will help more students succeed in online education.

6. Hurley, Rushton. "Fine-tuning an online high school to benefit at-risk students." *T H E Journal* [Technological Horizons In Education] Nov. 2002: 33+ Retrieved from http://go.galegroup.com.proxy1.cl.msu.edu/ps/i.do?&id=GALE%7CA108722843&v=2.1&u=msu_main&it=r&p=PROF&sw=w

   This article focused on the implementation of an online program in a charter school system in Texas. The charter school serviced students who were considered at-risk due to poor attendance, medical issues, lack of success academically, or behavioral issues. The author of this article describes in detail her role in the initial implementation of the program, the problems that arose, and the benefits that became evident. Hurley makes sure to note that some students were removed from the program due to lack of attendance or logins while others chose to leave the program and return to the traditional settings within the charter school system. Hurley also describes that the mandatory email communication served as a way to teach students about their writing and about composing professional emails, a skill that is valuable in today's workplace environment. Hurley also describes the flexibility of the online program as a benefit to the at-risk group which allows students to take care of dependent children, hold a job to help their family pay bills, or in cases of serious or chronic illness, attend repeated doctors' appointments while still completing coursework.

7. Journell, Wayne. (2010) Perceptions of e-learning in secondary education: a viable alternative to classroom instruction or a way to bypass engaged learning? *Educational Media International*, Vol. 47, Iss. 1, 69-81. Retrieved from http://www.tandfonline.com.proxy1.cl.msu.edu/doi/pdf/10.1080/09523981003654985

This article focuses on the perceptions of e-learning that students and teachers have. Journell interviewed students and the teacher in an online history class in Virginia. Journell conducted face-to-face interviews and clarified responses from the teacher, Mr. Harding, via email. From the interviews, Journell explains that the teacher's perception is that the class meets academic standards but does little to help students socially. The teacher viewed the online class simply as a way to get the content to the students. Students initially felt that online classes would be easier and many took them for that reason. Further along, many students admitted the online format was not as easy as they thought it would be. Furthermore, many students expressed that they did not like the lack of social interaction with their peers during the class. Journell goes on to make the argument for more training for perspective teachers in online education and training for current teachers on how to promote more social interaction and engaging activities online.

8. O'Hanlon, Charlene. (2009, Feb.) Credit recovery software: the new summer school: districts are using online programs to get at-risk students back on track to graduation. *T H E Journal* [Technological Horizons In Education]: 16+. Retrieved from http://thejournal.com/articles/2009/02/01/credit-recovery-software-the-new-summer-school.aspx

   This is another article that discusses the reasons that online programs are successful, particularly for at-risk schools. It examines Denver Public Schools and Volusia County Schools in Florida as two prime examples. The author notes some of the reasons for success include that the ability to complete the coursework anywhere. For example, students might start the program in a juvenile detention center and finish in a high school after release. The article also looks at how success in the self-paced online programs helps to change the outlooks of at-risk students, causing them to feel more in control and able to succeed. Students also find success in these types of programs by being able to work through their missing credits quickly if they work hard, allowing them to make up more than one academic year if students are ready to move on.

9. Osborn, Viola. (2001) Identifying at-Risk Students in Videoconferencing and Web-Based Distance Education. American Journal of Distance Education 15.1 (2001): 41,41-54. http://www.tandfonline.com.proxy2.cl.msu.edu/doi/pdf/10.1080/08923640109527073

   This article was about a study that was conducted with students at the University of North Texas in 1999 who took videoconferencing and web-based classes. The study used a survey with a Likert scale to determine factors that might be used as indicators to determine students at-risk of failing or dropping out of a web-based or videoconferencing class. The study found that students who were at-risk took more credit hours and worked fewer hours per week. They also had lower confidence in their use of computers, less experience in distance learning classes, and less motivation. Osborn argued that these factors did not necessarily indicate that a student will fail or drop, but that those factors made them more sensitive to problematic events such as illness that would ultimately cause the student to fail or drop a course.

10. Petrides, L. A. (2002). Web-based technologies for distributed (or distance) learning: Creating learning-centered educational experiences in the higher education classroom. *International Journal of Instructional Media*, 29(1), 69-69-77. Retrieved from http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/204262436?accountid=12598

    This article examines the use of a web-based program for an online component of a class. The program, LearningSpace, and its usefulness to the class was analyzed through classroom observations, postings in the discussion forums, and two sets of written evaluations from the students. Students expressed the postings in the discussion rooms were more thought out than discussions in a face-to-face classroom. Students felt they had a better understanding of each other and liked that they could access each other's posts while thinking about their written reply. Students expressed that they felt more comfortable using the technology by the end of the course and were more likely to take a similar course in the future. Students did express that they liked the flexibility of the online aspect, especially for group projects. Students also felt that LearningSpace gave them more access to their instructor and their classmates than they would have otherwise had in a traditional face-to-face only format.

11. Roblyer, M. D. (2006). Online high-school programs that work. *The Education Digest*, Vol. 72, Iss.3, 55-55-63. Retrieved from http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/218191297?accountid=12598

    This article looks at what is effective in online high school programs around the country and describes the strategies current schools are using that help them be successful. The article outlines the major reasons why students choose to take high school classes online. It then focuses on strategies that the Michigan Virtual High School, the Illinois Virtual High School, and the Florida Virtual High School have used to foster success in their programs. The article focuses on the training of staff, the quality of staff, orientation programs, and highly interactive and critical thinking based activities as just a few of those strategies. The article even looks at the way that virtual schools calculate their dropout rates and the reasons behind the high dropout rates these schools can have.

12. Roblyer, M.D., Davis, L., Mills, S., Marshall, J., & Pape, L. (2008). Toward practical procedures for predicting and promoting success in virtual school students. *American Journal of Distance Education , 22*(2), 90-109.

    This journal article describes a revised study to identify characteristics or variables that contribute to failure in online classes. It begins by identifying the wide variety of factors that previous studies identified as having some bearing on the success of students in online classes. The article then explains the study that was a revised version of a previous study that two of the authors (Roblyer ad Marshall) conducted. Data was collected using a survey that students were asked to complete in the first week of their online class. Results of the study point toward a combination of multiple factors influence student success in an online class including past ability, access to technology, organization of the student, self-efficacy, and learning conditions. The article also argues that the learning environment can have just as

much impact as student factors and therefore schools should consider having a designated time and place for their online students to work on their online class. Finally, the article also advocates for using probability statistics and usage reports from the first weeks of the course to identify students who are more likely to dropout or fail, and target them with extra support.

13. Roblyer, M. D., Freeman, J., Donaldson, M. B., & Maddox, M. (2007). A comparison of outcomes of virtual school courses offered in synchronous and asynchronous formats. *Internet and Higher Education, 10*(4), 261-268. Retrieved from http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/61938110?accountid=12598

    This study compares synchronous and asynchronous virtual classes in Alabama using data related to achievement, attitudes, and retention. Students gave feedback that they felt virtual classes were harder in general and staying on track in them proved to be more difficult than traditional classes they had in the past. Even though students did express that they felt they had less access to the teacher, they did feel the virtual classes met their learning needs. Results found very little difference in achievement and retention between the two types of classes. Teachers did find the online format more flexible however.

14. Vonderwell, S. (2003). An examination of asynchronous communication experiences and perspectives of students in an online course: A case study. *Internet and Higher Education*, 6(1), 77-77-90. Retrieved from http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/62238397?accountid=12598

    This article is about a study concerning the perspectives students had about an asynchronous online course. Data was collected from emails, discussion forums, student interviews, a peer reviewers. The study found that students had both positive and negative experiences with the online communication. Students did feel that they could ask more questions because they were not worried about what others would think about them like they would in a traditional classroom. However, students did report frustration in the time spent waiting for answers and feedback, since they are not responded to immediately like in a traditional classroom. Students also had positive and negative feedback on group work. Some indicated that they learned a lot through sharing ideas with others and they felt they worked harder to think of new ideas and research more. However others expressed frustration in waiting for group members to respond or fulfill their responsibilities.

15. Watson, J., & Gemin, B. (2008) Promising practices in online learning: Using online learning for at-risk students and credit recovery. *International Association for K-12 Online Learning.* http://www.inacol.org. Retrieved from http://www.inacol.org/research/promisingpractices/NACOL_CreditRecovery_PromisingPractices.pdf

    This is another report from the International Association for K-12 Online Learning. It focuses on credit recovery programs nationwide but is quick to note that credit recovery programs are programs that are servicing at-risk student populations. The report reviews

several programs, including one in Jackson, MI. It also summarizes important factors that make these programs successful for at-risk students including flexibility and the self-paced options that online courses provide. The report also emphasizes the importance of using the programs to individualize instruction and the importance of having frequent communication with students either face-to-face or electronically to help keep students motivated. The report also makes note that these credit recovery programs often pay for themselves by drawing drop-outs back to school, enabling districts to increase state funding. Finally, this report also cautions against low-cost online programs that do not incorporate teacher involvement.

Research Design

Research Questions:

This proposal seeks to answer the following questions: Is the use of online courses effective with at-risk high school students? Do online classes, like Compass Learning, have positive effects on at-risk students? The study will focus on the students in a Alternative Education program in the Redford Union School District who use online Compass Learning classes to earn their high school credits.

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Procedures:

To answer these questions data will be collected from several sources. First of all, data will be collected at the state and school levels. Test scores from the MEAP and ACT/MME tests will be accessed from the state. Grades, GPA, student records, and current credits will be accessed through the counseling department to verify factors causing students to be considered at-risk. Transcripts and GPA will also indicate baseline grades for students prior to starting online classes.

For the second step of this research, two sets of surveys will be created and administered: one for teachers and one for students. These surveys will ask teachers and students to indicate their opinions on what they have experienced using the online format through Compass Learning. Students will be given two separate surveys. The first survey will ask students about how they view themselves academically and how successful they feel they have been in the past. As many at-risk students lack a belief that they can succeed academically, I hope to see this indicated in their surveys. This will be used to establish a base line for student academic self-esteem. At the end of the course, students will be asked complete a second survey to rate their performance, their ability to complete the curriculum online, and how well the online format works for them. Students will again be asked how successful they feel academically after completing the online class. Teachers will be asked about the quality of work returned, student motivation levels, and current grades of students. Both surveys will use a Likert scale. Likert scales have been used repeatedly in prior research about online classes, as noted in the literature review, indicating their use should also be considered here. Prior studies also note the importance of teacher feedback in assessing online classes, including the 2007 study by Roblyer, Freeman, Donaldson, and Maddox. To ensure that students participate in the survey, it will be made available through the class management webpage and they will be offered extra credit for its completion, a procedure also used in the 2008 study by Roblyer, Davis, Mills, Marshall and Pape.

Next, after reviewing and sorting through the data from the survey, students and teachers will be selected for semi-structured interviews to elaborate their ideas and beliefs of the effectiveness of the online class format. The interview will also ask students to elaborate on how successful they feel as a student prior to and after taking the online classes. To help later analyze the data collected in the interviews in a systematic way, the interviews will be audio and video recorded. Finally, student grades will be collected and analyzed at the end of the semester to serve as a preliminary indicator of students' success in the online class.

After reviewing the literature concerning prior research of online classes, it is clear that surveys and interviews are excellent sources of data. Multiple studies indicated the use of Likert scales in the surveys to help sort and analyze the data. Independent interviewers will be used to interview selected staff and students to ensure the validity of the interviews and keep them free of bias, a strategy learned about through the lit review in the 2003 study by Vonderwell.

Assessments:

As indicated above, the assessments that will be used include the surveys and the interviews. Surveys will be administered, starting in the last month of the semester. This will ensure that students' initial frustrations with learning the online format and how to navigate within Compass Learning do not give false indications in the results. Students will also be given plenty of time to complete the survey (one month) and extra credit for completion, to ensure that a large sample of students participate in the survey. The prominent use of Likert scales in prior studies, including most studies covered in the literature review, signify their reliability in indicating student and teacher attitudes towards online classes. As a result, the surveys for both teachers and students will be created using a Likert scale.

As mentioned earlier, interviews with selected students and staff will be done by an independent interviewer so as not to sway their responses. As indicated by the lit review, it will be imperative to explain to students that their responses in the interview will have no effect on their grades in the class. The interview will also be left as semi-structured, allowing the independent interviewer the option to ask follow-up questions where necessary.

From this study, quantitative data in the form of test scores, credit levels, and grades earned will be collected. The study will also collect qualitative data in the form of the surveys and the interviews. While the quantitative data will give the audience a quick indicator of the level of success student had in the Compass Learning classes, the qualitative data in the surveys and interviews will indicate why there was success or why there was failure. It is also important to note that the qualitative data might indicate that students felt they were more successful in the online format than in past, traditional classes even if they did not score a passing grade. With at-risk students, small steps of improvement are just as important as large ones. As indicated by the literature review, at-risk students need to change their own mindset about themselves before change can truly be seen in their academic records.

Design Rationale

This mixed-method explanatory design would be the best method to gather a variety of data about the effectiveness of online classes with at-risk students. While some might argue that quantitative data including grades, test scores, and number of credits earned should be sufficient

data to indicate the success (or lack thereof) with at-risk students, that data would not help teachers, administrators, and other educators understand why the online format was either effective or not effective.

At-risk students are difficult students to make progress with. There are many factors that might keep them from being successful in both the traditional classroom and the online classroom. If we as educators do not do more to understand what keeps this population from succeeding, the pattern of failing will continue to repeat itself. Thus, it is not helpful to teachers to simply know that the students did not succeed (or did succeed) in the Compass Learning classes, if there is no data to indicate why, the helpful strategies cannot be repeated and the detrimental strategies and elements within the program cannot be eliminated. It is imperative that the survey and interview data be analyzed in conjunction with the quantitative data in order for the course design and curriculum to be changed in order to best help and engage the at-risk learner.

Revision Summary

Suggestion: "Issue/Research question: Effect of online courses on at-risk HS Ss. Specify what effects you're most interested in." (Focus and Rationale)

> **My Response**: I added two additional questions: "Is the use of online courses, like Compass Learning, effective with at-risk high school students? Do online courses have a positive effect on at-risk students? Do online courses help at-risk students become more confident in their academic abilities?"

Suggestion: "Sources: Too general. Identify a number of specific journals. Focus on practitioner and academic focused journals, and journals associated with professional organizations in your area" (Focus and Rationale)

> **My Response**: I identified more journals. I also identified two authors that have multiple studies that I will use as references. I also identified the International Association for K-12 Online Learning as another professional resource that I tapped into to find two very helpful publications. The updated list is more extensive than my original.

Suggestion: "Conclusion/How the Lit review informs your study: A good summary of what you have reviewed, but this is not the purpose of the conclusion section for this assignment. Instead, be as specific as possible about which parts of your study have been informed by which people's work." (Literature Review)

> **My Response:** I added to this section and identified which studies used surveys with Likert scales and explain its influence on my ideas for the research design. I also added more about the lack of actual feedback from at-risk students who use online classes was evident through the literature review and particularly the reports from International Association for K-12 Online Learning influenced me to want to include surveys and interviews in my research design.

Suggestion: "Procedures. Overall good. I can see how you'll identify at-risk students, but I don't quite see how you will get at the effect of online classes on these students." (Research Design)

> **My Response**: I added a second survey for the students in the Procedures section of the Research Design. They will be asked to give feedback at the beginning of the class about how they feel about themselves academically. As many at-risk students lack a belief that they can succeed academically, I hope to see this indicated in their surveys. I will also add questions regarding these same feelings in the second survey administered at the end of the course to determine if there is any change.

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