A Study of the Impacts of Student Participation in Extracurricular Activities and Perceived

Academic Achievement

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Abstract

The purpose of this study was to determine if there was a relationship between participation in extracurricular activities (ECAs) and academic achievement. The sample consisted of sixth and seventh grade students from a middle school in a rural county located in Southwest Virginia. The school has an enrollment of 221 students and 49.3% of students were classified as economically disadvantaged. The participating students completed a survey and answered if they participated in ECAs, specifically focusing on athletics, academic clubs, and fine arts clubs. Students were then asked how happy they were at school and how confident they felt with their math and English coursework. Data were analyzed using independent-samples ttests and showed significant differences between students who participated in athletics and their greater confidence in math coursework (p=.005), as well as their overall happiness at school (p=.003). Results also showed significant differences for students who were members of academic clubs and their confidence in math coursework (p=.001). The results did not indicate significant differences of any particular ECA and student confidence in English work.



Date: March 9, 2020

From: The Institutional Review Board (IRB) at Milligan College

Re: A Study of the Impacts of Student Participation in Extracurricular Activities and Academic Achievement

Submission type: Revised Submission

Dear Rachel,

On behalf of the Milligan College Institutional Review Board (IRB), we are writing to inform you that your study *A Study of the Impacts of Student Participation in Extracurricular Activities and Academic Achievement* has been approved as expedited. This approval also indicates that you have fulfilled the IRB requirements for Milligan College.

All research must be conducted in accordance with this approved submission, meaning that you will follow the research plan you have outlined here, use approved materials, and follow college policies.

Take special note of the following important aspects of your approval:

- Any changes made to your study require approval from the IRB Committee before they can be implemented as part of your study. Contact the IRB Committee at IRB@milligan.edu with your questions and/or proposed modifications.
- □ If there are any unanticipated problems or complaints from participants during your data collection, you must notify the Milligan College IRB Office within 24 hours of the data collection problem or complaint.

The Milligan College IRB Committee is pleased to congratulate you on the approval of your research proposal. Best wishes as you conduct your research! If you have any questions about your IRB Approval, please contact the IRB Office and copy your faculty advisor if appropriate on the communication.

Regards,

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The IRB Committee

Chapter 1

Introduction

The correlation between socioeconomic status (SES) and academic achievement has placed many students at disadvantages for academic success (Bowen & Hitt, 2016; Brantley, 2014; Cosden, 2004). Students from lower-income households are not supplied with equal opportunities in comparison to their peers who belong to higher-income households. Educators have been placed with the tasks of creating unique teaching methods that differentiate instruction that works to ensure that all students have equal opportunities to learn, but the challenge of overcoming demographics places educators with more questions on what contributes to this relationship. As this is a great issue for both educators and students, researchers are continually on the quest for answers that explain why there is a correlation between SES and academic achievement.

To effectively gauge the variables that contribute to this relationship, it is important to view all components needed to obtain academic achievement (Covay, Carbonaro, 2010). Students who have great academic success tend to have higher attendance averages, positive viewpoints of school, and an emotional attachment to the school (Snellman, Silva, Frederick, 2015). Many students positively view their school once they are actively involved in school-sponsored activities. This leads to a new focus in research, reviewing the correlation between participation in extracurricular activities (ECA) and academic achievement. As participation in ECAs promotes student involvement, places students in safer group situations, and implements attendance and academic requirements, it is clear to see that there are many variables within participation in ECAs that contribute to student academic success (Abruzzo, Lenis, Romero, 2016).

Statement of the Problem

There have been multiple studies conducted on the relationship between SES and academic achievement. These studies have concluded that students from low SES households are less likely to have greater academic achievement in comparison to their counterparts from higher SES households. While there have been many studies on this correlation, it is essential to break down this relationship to find which components contribute to the academic success of students from higher SES households.

Prior research has been conducted on how student-athletes, academic teams, and fine arts members perform in the classroom. Various studies have reviewed data comparing student math and reading scores, as well as the end of course examinations and standardized testing. Although these topics are strictly related to quantitative data, there are limited qualitative studies on the topic. While educators are continually searching for ways to meet the needs of all students, it is critical for teachers to understand any variables that contribute to the academic success of students. Once contributing variables are found, educators then have the opportunity to identify areas in which they can best help students to reach academic success.

Purpose of the Study

The purpose of this study is to see if there are relationships between student participation in various ECAs and academic achievement. As prior research has indicated that students from low SES households are not as likely to achieve academic success as their peers from higher SES households, it is vital that educators identify the variables that contribute to this trend. Throughout this study, data will be collected to check the relationships between student participation in athletics, academic clubs, and fine arts clubs and their academic achievement through surveying their overall happiness at school and their confidence in math and English coursework. Once data results indicate the relationships, if any, between these three ECAs with student academic confidence and general happiness, educators may have additional information of links to student academic achievement.

Significance of the Study

The data from this research may supply educators from low SES demographics with new knowledge of ways to increase academic achievement in students from low SES households. Once data has revealed the relationships between participation in athletics, academic clubs, the fine arts and academic achievement, teachers will have further opportunities to recognize contributing variables to academic success and work to increase academic achievement for all students.

Limitations

- 1. This study only focuses on students from one school in one county.
- 2. As the study is conducted in a small county, many students who participate in ECAs are members of multiple teams, making it difficult to record accurate data for each ECA.

Definitions

- 1. Socioeconomic Status- The social standing or class of an individual or group, often measured as a combination of education, income, and occupation.
- 2. Academic Achievement- Performance outcomes that indicate the success a person has reached for specific goals focused on performances in academic environments.

- 3. Demographic- The structure and characteristics of a population, such as age, gender, and income.
- 4. Extracurricular Activities- An activity performed by students that fall outside of the regular curriculum, specifically relating to school-sponsored programs, athletics, and clubs.

Chapter Two

Literature Review

Introduction

Many have questioned the correlation between socioeconomic status (SES) and academic achievement in secondary students. While research supports the claims that students from higher SES households are more likely to have greater academic achievement than their peers from lower SES households, there remains the deeply embedded question of why? Many hypotheses could contribute to this question, but one particular subset being that of participation in extracurricular activities (ECA). While reviewing literature related to this topic, there were many recurring themes amongst research studies. These recurring themes include: relationships between athletic participation and greater academic success, participation in academic clubs and student achievement, involvement in fine arts clubs and academic achievement, and the financial costs of participating in ECAs.

Participation in Athletic Programs

Athletic programs play a major role in public school systems and in the lives of the student participants. Many question if participation in athletics has a positive or negative effect on student academic achievement, but research indicates that student participation in athletics directly correlates to student academic success (Bowen & Hitt, 2016; Brantley, 2014; Cosden, 2004; Covay, 2010; Broh, 2002). "Student-athletes generally do better in school than other students – not worse ... Tougher academic eligibility requirements that schools place on athletes have decreased dropout rates among at-risk students" (Bowen & Hitt, 2016). As researchers have conducted various studies to test this correlation, many outcomes have noted that

participation in athletics generates positive outcomes for students both inside and outside the classroom (2016). This conclusion has been reached through comparative studies of athlete and non-athlete GPAs and individualized test scores specified by content.

Participation in athletic programs has a strong impact on students. While there is quantitative evidence of the profound effects of participation in athletics and academic achievement, Cosden includes student interviews in their research that contribute to these findings. Included in a case study, a testimony from a 14-year-old student described how her choice to participate in basketball allowed her to channel negativity from her home life into positivity on the basketball court and in the classroom. "*As a result of her desire to engage in this sport, she made a conscious effort not to let her family life interfere with her school work*" (2004). Participating in athletes creates higher standards for students to abide by. As students have mandated attendance, GPA, and behavior standards, participants achieve high academic standards because of the discipline enforced by athletic programs (Broh, 2002). *Rather than divert students from meeting their academic goals, studies find that students engaged in extracurricular activities – including sports, service clubs, and art activities – are less likely to drop out and more likely to have higher academic achievement" (Cosden, 223).*

When analyzing the correlation between academic achievement and participation in athletics, it is critical to examine individual justifications for this question. Researchers found that students who were actively involved in athletics were more likely to have higher academic self-concept, which contributes to their academic success (Abruzzo, 2016). "...there is a strong correlation between percent of participation in an organization and self- concept. There is a correlation between self-concept and academic self-concept. That means that a students' positive self-concept about themselves will show in their academics" (Abruzzo, 2016). While this

particular study noted the importance of the relationships between athletic participation and academic self-concept, other researchers found a correlation between athletic participation and math scores in relation to socioeconomic status.

In multiple research studies, researchers found a relationship between math scores amongst students who participated in athletics in comparison to those in comparable SES households, but who do not participate in athletics. *"However, the relationship between activities and performance also varied depending on their family socioeconomic status (SES) and, for students with low SES, it was translated into higher scores in Mathematics compared to nonparticipants of the same socioeconomic status"* (López, 2016). Lumpkin and Favor analyzed test scores from secondary athletes and non-athletes, particularly focusing on math scores. Findings revealed that non-athletes had lower scores than those who participated in athletics (Lumpkin & Favor, 2012). In addition to the correlation in math scores, other researchers found a correlation to overall student grade point average.

Many secondary schools have implemented a no pass, no play policy. This policy further enforces academic success in student athletes, as their privileges to play are revoked if they do not maintain a specific grade point average (Bowen & Hitt, 2016). "Schools can leverage academic eligibility rules that require students to meet minimal academic requirements in order to be eligible to play interscholastic sports" (2016). As schools have the ability to set policies, student athletes are held to higher standards which plays a role in increased grade point averages.

Participation in Academic Clubs

Research indicates that there is a strong relationship between participation in academic clubs and academic achievement (Mahoney, 2014; Rajan, 2017; Brantley, 2014). As secondary

schools have greater tendencies to host extracurricular activities (ECA), it is important to research the impacts that participation in these activities yields on student academic success. *"Extracurricular activities also can be an after-school program that you decide to be a part of – like the science club and the debate team – which can really help your grade tremendously…"* (Brantley, 2014). As Brantley, a senior in high school noted, the impacts of academic clubs have great effects on academic success. Research indicates that students who participate in academic clubs have a greater chance of higher grades than their peers who do not participate in academic clubs had tendencies to earn higher grades in math, English, and science (2010). Although this relationship

is very strong, it is important to take into consideration the many variables that contribute to this relationship.

Multiple variables contribute to the relationship between academic club participation and higher academic achievement. In most scenarios, students who participate in academic clubs have a vested interest in academics (2010). Once students are interested enough to participate in academic clubs, it is clear that these students have higher tendencies of academic achievement as they have a vested interest in academia. Another variable that contributes to this correlation is the link between positive peer influences that students who participate in these clubs have, in comparison to their peer counterparts who are not involved in ECAs. *"The results of multilevel mediational models suggested that school belonging mediated the link between friends in activities and academic outcomes, and these findings replicated across groups based on ethnicity and the type of activity in which one was involved in general"* (Knifsend, 2018). As students are exposed to other influences with positive goals, they are more likely to take positivity away from the setting of the clubs and channel that energy into their academic work. Another variable of

participation in academic clubs that contributes to academic achievement is the structure of the club setting.

As students are involved in structured settings that resemble a classroom, their behavior in a classroom is more likely to be positive, which then promotes academic success. While students are involved in academic clubs, they learn skills that transition over to their time in the classroom. "*ECAs also resemble classroom environments in how social relationships are defined and structured. In both cases, children are subordinate to an adult authority figure who sets goals and expectations for children, organizes tasks designed to promote mastery of a given skill, and provides instruction to promote skill development*" (Covay, 2010). Participation in academic clubs help students to set personal goals for themselves. Students are taught standards and expectations, as well as practice with skill development and effectively responding to authoritative figures (2010). A combination of these variables greatly contributes to the academic success of students who participate in academic clubs.

Participation in Fine Arts Clubs

As research has been conducted to review the correlations between participation in ECA and academic success, one aspect to take into consideration is participation in fine arts clubs. Research indicates that participation in fine arts clubs increases student academic achievement (Gadberry, 2010). It is important to note that while there are many outcomes to participation in ECAs, the effects differentiate based on various types of activities students participate in. Throughout this study, researchers surveyed 500 parents of students enrolled in fine arts classes and 300 educators of various contents including art, social studies, math, and science (2010). *"The results of the parental survey indicated that children who were involved in choir had higher* *instances of a grade of A (54% of participants versus 43% of nonparticipants...*"(2010). As predictors have shown that students who participate in fine arts clubs are more likely to achieve higher levels of academic success, there are many variables that contribute to this prediction.

Throughout this research study, Gadberry sought to determine educational outcomes of student involvement in fine arts clubs. Researchers found that students who participated in fine arts clubs were more likely to have higher grade point averages, increase attendance, and greater positive connections to school than their peers who did not participate in fine arts clubs (2010). "....[O] ver half of these parents noted that their child had improved academically since joining the chorus (64% language arts, 57% in math, and 61% academically overall" (2010). While this research is solely based upon qualitative research, it is essential to note that the data collected was not strictly based up parent surveys, but also survey responses from educators. The testing methods of this study included a qualitative survey that parents and educators anonymously answered and returned to researchers.

This study determined that students who participated in fine arts clubs had tendencies to have many benefits outside of the positive academic impacts. This trend is a recurring theme throughout many reviews of literature, as students within these clubs are encouraged to be student leaders and held to eligibility standards (Bowen & Hitt, 2016). Throughout this study, researchers sought to supply explanations for the increased academic success of students who participate in fine arts clubs. "*The parents also reported an assortment of other benefits such as stronger self-worth, creativity, and fewer hours of television*" (2010). As students are placed in situations where they feel more confident in themselves, their confidence will spread in all facets of their lives, including academics.

Financial Costs

Student participation in various extracurricular activities (ECA) is correlated to higher academic achievement and educational attainment (Snellman, Silva, Frederick, Putnam, 2015). The result of higher academic achievement within student participation in ECAs can be linked to many variables, including that of the financial costs of participation. While the argument can be made that public school systems supply equal opportunities for all students to participate in ECAs, the true reality is that participation in ECAs varies greatly across social classes (Snellman, Silva, Frederick, Putnam, 2015). In fact, recent studies have concluded that participation in these activities greatly increases with higher family social class or socioeconomic status (Weininger, Lareau, Conley, 2015). In addition to the gap amongst students from low and high socioeconomic status households and participation in ECAs, students from low income school systems are also disadvantaged with fewer opportunities to participate in ECAs.

In past times, public school systems funded the majority of the cost of participating in ECAs. With recent budget cuts, systems were forced to make difficult decisions in how they would allocate funding. In many scenarios, systems cut funding from multiple ECAs, including the arts and athletics (Snellman, Silva, Frederick, Putnam, 2015). *"Struggling with budget cuts and deficits, many school districts have cut back on their funding for drama clubs and music programs and either reduced the number of afterschool sports offered or put a hefty price tag on participation. The end result is that an increasing number of low- income students found themselves left on the sidelines" (Snellman, Silva, Frederick, Putnam, 2015). The lack of monetary assets greatly hinders students from participating in ECAs, whether it be based on the household income of the family or the allocated budget for the school system as a whole. Research also indicates that community characteristics have vague impacts on participation in*

ECAs and the financial responsibility of the participant increased (Weininger, Lareau, Conley, 2012). Students living in the lowest quality ratings in neighborhoods tend to have reduced participation in activities, while those who attend private schools have substantially increased participation in ECAs (Weininger, Lareau, Conley, 2012).

Research further concludes that there has been a steady decrease in students from working-class families and their participation in extracurricular activities. "*Our findings are alarming: while upper-middle-class students have become more active in school clubs and sports teams since the 1970s, working- class students have become increasingly disengaged and disconnected, their participation rates plummeting in the 1990s and remaining low ever since*" (Snellman, Silva, Putnam, 2012). Low income students are continually disadvantaged in their quest for academic achievement as the price of ECA participation continues to rise and school budgets continue to decline.

Conclusion

After reviewing the literature on relationships between participation in extracurricular activities and academic achievement, findings indicate that there is a strong correlation between the two topics. As students participate in athletic programs, there are higher standards placed on student athletes. Student eligibility hinges on grade point averages and attendance, in addition to pass to play policies implemented by school systems. Research also indicates that students who participate in academic clubs are more likely to achieve greater academic success. As students are involved in various extracurricular activities, they learn discipline, have higher academic self-concept, and are more inclined to develop the skills needed to succeed in the classroom. Although research indicates that participation in ECAs has great effects on student academic

success, this participation comes at a cost that often leaves students from low socioeconomic households out of the equation. Findings in the review of literature contribute to the quest for answers when questioning the relationship between SES and academic achievement.

Chapter 3

Methodology and Procedures

The purpose of this study was to examine the relationship between student participation in extracurricular activities and academic achievement. Students completed a survey on Google Forms and answered questions about which extracurricular activities they participated in, their overall happiness at school, and their confidence throughout their math and English coursework. Student survey responses were then compared to determine if a correlation exists between participation in extracurricular activities and academic achievement. The following chapter supplies the methods in which this research study will be conducted. There are multiple examples of the participants included in the study, as well as the variables that will be testing measurements in this study. The conclusion of the chapter is a description of the research questions and methods of testing that will yield results for data analysis.

Population

The population for the study was comprised of middle school students from a rural Southwest Virginia public school. The school was made up of:

- 221 students
- 97.7% of students were white
- 1.8% of students were Hispanic
- .05% of students were of multiple races
- 49.3% of students were economically disadvantaged
- 13.1% of students were classified with disabilities

Participants

The participants of this study consisted of sixth and seventh grade students. Although all students in the sixth and seventh grade had the opportunity to participate in the study, only those who returned parent consent forms participated in the study. Of those students, 31 returned parent consent forms.

Data Collection Instruments

In order to collect data for this research study, students completed a short survey through Google Forms. The survey had students identify which subsects of extracurricular activities they participated in such as academics, athletics, and fine arts programs. The survey described baseline data for the results that participation of extracurricular activities yields on academic achievement. Throughout this survey, questions were constructed through multiple choice, as multiple choice questions supply opportunities for direct comparisons of answers. The survey (Appendix A) asked questions about student involvement in school, general happiness at school, and their confidence in math and English classes. This supplied data of the impacts that participation in various extracurricular activities yields on academic success. All student participants answered the same exact questions to compare differing opinions and student outcomes.

Procedures

The first step to implementing this research study was to receive permission from both Milligan College's Institutional Review Board (IRB) and the principal of the cooperating school. After the IRB committee approved the research and received the information needed from the cooperating school's principal, the study was then approved for implementation. As student participants in the study were in the sixth and seventh grades, the next step was to obtain proper parent consent. In order to obtain this consent, the researcher had verbal introductions with students about the research project. Throughout this introduction, students learned about the purposes, risks, and benefits of the study, as well as the fact that their participation was on a voluntary basis and could be withdrawn at any time. At the conclusion of the introduction, students were given parent consent forms to be signed and returned. Only students who returned the consent forms were participants in the study.

Once students had returned their parent consent forms, a Google Form was then sent to their school emails. Students completed the surveys as a group in their English classes. As the survey was only 4 questions, it only took students around 3 minutes to complete. All data collected from the survey remained anonymous. Students were not asked to submit their names, age, gender, or race. As these were not measured for data analysis, the researcher did not include them as a component of the survey.

After the data from the survey was collected, the researcher then began to seek relationships between specific extracurricular activities and student academic success. The primary method of data analysis was through a comparative assessment of the collected data. Data were input into SPSS and divided amongst the different participants and their specific topics. Students who participated in athletics had their initial survey answers compared, and this followed with students who participated in the arts and academic programs. An independent study t-test performed on all of the different areas of extracurricular activities in order to answer the following research questions.

Research Questions

RQ1a: Is there a significant difference in student responses to student overall happiness at school between students who participated in athletics and students who did not?

RQ1b: Is there a significant difference in student responses to how confident students felt in their work in math class between students who participated in athletics and students who did not?

RQ1c: Is there a significant difference in student responses to how confident students felt in their work in English class between students who participated in athletics and students who did not?

RQ2a: Is there a significant difference in student responses to student overall happiness at school between students who participated in academic clubs and students who did not?

RQ2b: Is there a significant difference in student responses to how confident students felt in their work in math class between students who participated in academic programs and students who did not?

RQ2c: Is there a significant difference in student responses to how confident students felt in their work in English class between students who participated in academic programs and students who did not?

RQ3a: Is there a significant difference in student responses to student overall happiness at school between students who participated in fine arts programs and students who did not?

RQ3b: Is there a significant difference in student responses to how confident students felt in their work in math class between students who participated in fine arts programs and students who did not?

RQ3c: Is there a significant difference in student responses to how confident students felt in their work in English class between students who participated in athletics and students who did not?

Chapter 4

Data Collection

The purpose of this study is to see if there is a relationship between student involvement in extracurricular activities and academic achievement. This data was collected one week after students had been given parent consent forms. As there were interruptions to the usual academic calendar, the response rate for this study was relatively low, which consisted of 31 participants. Student responses remained anonymous and their age, race, and gender were not asked on the survey.



Table 1: Student Participants in Athletic Programs

Table 2: Student Participants in Academic Programs



Student Particpants in Academic Programs



Table 3: Student Participants in Fine Arts Programs



RQ1a: Is there a significant difference in student responses to student overall happiness at school between students who participated in athletics and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how happy students felt when they were at school differed significantly between students who participated in athletics and students that did not. The average response to the question about student general happiness at school was the test variable and the grouping variable was whether or not the student participated in athletics. The test was significant t(29) = 3.287, p= .003. Therefore, the null hypothesis was rejected. Students who participated in athletics (M = 3.35, SD = 0.59) were significantly more likely to answer that they were happier to come to school than students who did not participate in athletics (M = 2.45, SD = 0.93).

RQ1b: Is there a significant difference in student responses to how confident students felt in their work in math class between students who participated in athletics and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how confident students felt in their work in math class differed significantly between students who participated in athletics and students who did not. The average response to the question about how confident students felt in their work in math class was the test variable and the grouping variable was whether or not the student participated in athletics. The test was significant, t(29) = 3.001, p= .005. Therefore, the null hypothesis was rejected. Students who participated in athletics (M=3.2, SD= .83) were significantly more likely to answer that they felt more confident in their work in math class than students who did not participate in athletics (M= 2.09, SD= 1.22).

RQ1c: Is there a significant difference in student responses to how confident students felt in their work in English class between students who participated in athletics and students who did not?

An independent- samples t-test was conducted to evaluate whether the average response for the survey question about how confident students felt about their work in English class differed significantly between students who participated in athletics and students who did not. The average response to the question about how confident students felt in their work in English class was the test variable and the grouping variable was whether or not the student participated in athletics. The test was not significant, t(29) = -0.589, p= .561. Therefore, the null hypothesis was not rejected. Students who participated in athletics (M= 3.0, SD=0.79) were not significantly less likely to answer that they felt more confident in their work in English class than students who did not participate in athletics (M= 3.18, SD = 0.87). RQ 2a: Is there a significant difference in student responses to student overall happiness at school between students who participated in academic clubs and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how happy students felt when they were at school differed significantly between students who participated in academic programs and students that did not. The average response to the question about student general happiness at school was the test variable and the grouping variable was whether or not the student participated in academic programs. The test was not significant, t(29)=.266, p=.792. Therefore, the null hypothesis was not rejected Students who participated in academic programs (M= 3.08. SD= 0.51) were not significantly more likely to answer that they felt happier at school than students who did not participate in academic programs (M=3.0, SD=1.0).

RQ 2b: Is there a significant difference in student responses to how confident students felt in their work in math class between students who participated in academic programs and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how confident students felt in their work in math class differed significantly between students who participated in academic programs and students who did not. The average response to the question about how confident students felt in their work in math class was the test variable and the grouping variable was whether or not the student participated in academic programs. The test was significant, t(29) = 3.156, p= .004. Therefore, the null hypothesis was rejected. Students who participated in academic programs (M=3.5, SD= .52) were significantly more likely to answer that they felt more confident in their work in math class than students who did not participate in academic programs (M= 2.37, SD= 1.16).

RQ2c: Is there a significant difference in student responses to how confident students felt in their work in English class between students who participated in academic programs and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how confident students felt in their work in English class differed significantly between students who participated in academic programs and students who did not. The average response to the question about how confident students felt in their work in English class was the test variable and the grouping variable was whether or not the student participated in academic programs. The test was not significant, t(29) = 1.009, p= .321. Therefore, the null hypothesis was not rejected. Students who participated in academic programs (M=2.5, SD= .75) were no less likely to answer that they felt more confident in their work in math class than students who did not participate in academic programs (M=2.95, SD= 0.85).

RQ3a: Is there a significant difference in student responses to student overall happiness at school between students who participated in fine arts programs and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how happy students felt when they were at school differed significantly between students who participated in fine arts programs and students that did not. The average response to the question about student general happiness at school was the test variable and the grouping variable was whether or not the student participated in fine arts programs. The test was significant t(29) = -.233, p= .817. Therefore, the null hypothesis was not rejected. Students who participated in fine arts programs (M = 3.0, SD = 1.0) were no less likely to answer that they were happier to come to school than students who did not participate in fine arts programs (M = 3.07, SD = 0.62).

RQ3b: Is there a significant difference in student responses to how confident students felt in their work in math class between students who participated in fine arts programs and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how confident students felt in their work in math class differed significantly between students who participated in athletics and students who did not. The average response to the question about how confident students felt in their work in math class was the test variable and the grouping variable was whether or not the student participated in fine arts programs. The test was not significant, t(29) = -1.571, p=.127. Therefore, the null hypothesis was not rejected. Students who participated in fine arts programs (M=2.52, SD= 1.18) were no less likely to answer that they felt more confident in their work in math class than students who did not participate in fine arts programs (M= 3.14, SD= .95).

RQ3c: Is there a significant difference in student responses to how confident students felt in their work in English class between students who participated in fine arts programs and students who did not?

An independent-samples t-test was conducted to evaluate whether the average response for the survey question about how confident students felt in their work in English class differed significantly between students who participated in fine art programs and students who did not. The average response to the question about how confident students felt in their work in English class was the test variable and the grouping variable was whether or not the student participated in fine arts programs. The test was not significant, t(29) = 1.302, p=.203. Therefore, the null hypothesis was not rejected. Students who participated in fine arts programs (M=3.24, SD= 0.83) were no less likely to answer that they felt more confident in their work in math class than students who did not participate in fine arts programs (M= 2.86, SD= .77).

Chapter 5

Discussion

The purpose of this study was to determine the impacts of student participation in extracurricular activities and perceived academic achievement. The results were examined using paired t-tests. This chapter contains a summary of the findings, interpretation of findings, limitations, recommendations, and conclusions from this study.

Summary of the Findings

Research questions 1a-c dealt with the comparisons of students who participated in athletics and students who did not and were analyzed using paired t-tests. The results indicated that students who participated in athletics were significantly more likely to answer that they were happier at school than students who did not participate in athletics (p=.003). The results were consistent with findings in the literature review (Abruzzo, 2016), which also suggests that students who participated in athletics had a higher self-concept, which directly related to their confidence and general happiness at school. Research question 1b focused on how confident students felt in their work in math class. The t-test revealed that student athletes were more likely to answer that they felt more confident in their work in math class in comparison to their peers who did not participate in athletics (p=.005). This result was consistent with the literature, as prior studies also found that student athletes were more likely to have increased confidence in math classes than students who did not participate in athletics (López, 2016). The final research question that drew comparisons between student who participated in athletics and students who did not questioned student confidence in their work in English class. The t-test revealed that there were no significant differences between student athletes and their peers with their

confidence in English classes (p=.561). Meaning that while most student athletes answered that they felt very confident about their math coursework, there were no differences found in the confidence levels of their English work.

Research questions 2a-c all focused on the relationships between students who participated in academic clubs and students who did not. The first comparison focused on student general happiness at school. The results from the study indicated that students who participated in academic clubs were neither more nor less likely to answer that they were generally happier at school than students who did not participate in academic clubs (p=.792). The second comparison researched between students who participated in academic clubs and students who do not focused on the comparison of student confidence in math class. The research found that students who participated in academic clubs answered that they were significantly more confident in their math work than students who did not participate in academic clubs (p=.004). Previous studies also revealed strong relationships between student participation in academic clubs and confidence in math abilities (Shulruf, 2010). In addition to seeking relationships between student happiness at school and confidence in math classes, students were also asked about their confidence levels in English class. Data from the study revealed that while there was a significant difference in the confidence of math work, student answers to confidence in English work were generally the same (p=.321). This was not consistent with the literature, as other research studies found that students who participated in academic clubs were more likely to have increased confidence in English classes (Shulruf, 2010).

Research questions 3a-c all focused on the relationships between students who participated in fine arts programs and students who did not. Similar to the prior research questions, this group of questions also drew comparisons between student general happiness at school and student confidence in math and English classes. After reviewing the results from the research study, findings indicate that students who participated in fine arts programs did not show any significant differences with their general happiness at school compared to students who did not participate in fine arts programs (p=.817). This result differed from prior research studies, as others found that students who participated in fine arts programs showed increase happiness while at school (Gadberry, 2010). The next comparisons within this group consisted of student confidence in math and English classes. Results revealed that students who participated in the fine arts were no more nor less likely to answer that they felt further confidence in their math abilities than students who did not participate in fine arts programs (p=.127). This finding was not consistent with the literature, as it showed students who participated in fine arts saw increases in math averages (Gadberry, 2010). The final testing variable was a comparison of student confidence in English coursework. Results from this study revealed that students who participated in fine arts programs did not show any differences in how they felt with confidence in their English classes compared to students who did not participate in fine arts programs. This finding was also inconsistent with literature, as it found that students in fine arts programs were more likely to answer that they felt very confident in their work in English classes (Gadberry, 2010).

Interpretation of Findings

There were many similarities and differences between this research project and those found in the literature. One of the main similarities found between this study and the literature was that of the confidence in math scores. Students who participated in both athletics and academic clubs both answered that they felt very confident in their work in math class. Although there may be many contributions to this statistic, one reason that student athletes may have answered that they felt more confident was due to their diligent practice. As student athletes are accustomed to a daily practice of skills, this same principle could be applied to their coursework in math. Another contributing factor to this statistic from student participants in academic clubs could be their initial vested interest in academia (Shulruf, 2010). As students are more enthralled with education and learning, they are more likely to exercise diligent practice with specific skills, particularly math. Students are also given further opportunities to practice their math skills in various settings within their academic clubs (Shulruf, 2010). Although student athletes and student participants in academic clubs showed significant differences in their confidence in math coursework, there were no significant differences between the three groups and their confidence in English coursework. There could be many possibilities for this difference, with one being the different skills presented in math and English coursework. While math skills can be mastered through continued practice, English skills often involve analytical thinking with individual interpretations of various literature.

The only group within this study that showed significant differences in the overall happiness at school was student athletes. Student athletes are a very involved group of students on any school campus. As these students are extremely involved, they may come to school looking forward to an upcoming game or match. In addition to their excitement for sporting events, student athletes also spend a lot of time with their teammates, usually forming very close relationships. While there could be a plethora of contributing factors to student athletes' general happiness at school, sporting events and spending time with their teammates at school could be two of the contributing factors.

While there were many similarities and differences between comparing the results of this research study with prior studies, it is important to note other variables that could have contributed to the outcomes of the t-tests. One possible variable that could have contributed to the results is the financial costs of participating in ECAs (Snellman, Silva, Frederick, Putnam, 2015). As socioeconomic status plays a major role in the academic success of students, research studies have concluded that participation in ECAs increased with the student's social class or socioeconomic status (Weininger, Lareau, Conley, 2015). This implies that the relationship between participation in ECAs and academic achievement could be broken down further into a relationship between student SES and academic achievement. Research further indicates that while upper-middle class students have become more active in school clubs and sports teams, working class students have become increasingly disengaged from these activities (Snellman, Silva, Putnam, 2012). In addition to the financial costs of participating in ECAs, many schools have implemented pass to play policies, which requires students to meet specific eligibility requirements that contribute to their academic success in the classroom (Bowen & Hitt, 2016).

Eligibility requirements play a major role in the academic motivation of many students. As schools have implemented attendance requirements, minimum grade point averages, and mandatory after school tutoring sessions, many students understand that they have to maintain strong academic work in order to participate in their specific ECA (2016). In addition to these requirements, there are also "no pass, no play" policies set in place that state if students do not pass their classes, they will not represent their school in ECAs (2016). Because schools have implemented these policies, many students are held to higher standards, which may be a contributing factor to increases in academic grade point averages.

Limitations of the Study

- The sample size was a great limitation for this study. As there were only 31 participants, it was difficult to receive accurate, large scale results of the study.
- Students could have participated in all three categories listed on the survey. This created overlaps in their responses to the testing measurements.
- Time was a great limitation in this study. If given more time, the research could have been conducted on a larger scale with more participants.

Recommendations

- This study would be better used if implemented on a larger scale with diverse participants.
- Incorporate student SES with the testing measurements. This would serve as a baseline to explore further questions if cost is a variable that hinders students from participating in ECAs.
- 3. Review data results based on gender. As this study was completely anonymous, participants were not asked to identify their gender. It would be interesting to conduct this study on a large scale and to break results down further based on gender.
- 4. Review data results based on individual sport, academic club, and fine arts program. While this study grouped all subsets into one category, it would be helpful to identify the relationships between individual sports, academic clubs, and fine arts programs.

Conclusion

The purpose of this study was to review the relationship between student participation in extracurricular activities and perceived academic achievement. Results from this study indicate that students who participate in athletics were significantly more likely to show confidence in their math coursework and were overall happier when they were at school. Students in academic clubs also showed significant increases in confidence in their math abilities, but did not show this same confidence in English classes. Students in the fine arts programs did not show significant increase or decreases with their confidence in math and English coursework or their overall happiness at school. The results from this study supply educators with a further understanding of how student participation in ECAs impacts not only student self-concept, but student academic achievement and how educators can individualize instruction to meet the needs of all students.

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Appendices

Appendix A

Student Survey

Student Survey

- Do you participate in athletic programs (football, basketball, cheerleading, soccer, baseball, volleyball, wrestling, etc.)?
- 2. Do you participate in academic programs (BETA, SGA, etc.)?
- 3. Do you participate in fine arts programs (band, chorus, etc.)?
- 4. On a scale of 1-4 with 1 being the lowest, how happy do you feel when you are at school?
- 5. On a scale of 1-4 with 1 being the lowest, how confident do you feel about your work in math class?
- 6. On a scale of 1-4 with 1 being the lowest, how confident do you feel about your work in reading class?