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Middle Schools in the Richmond County, NC school district are required to develop school improvement plans (SIPs) to address the needs of each school according to national, state, and local initiatives. Ellerbe Middle School was no exception. One of several strategies, the Ellerbe Middle School intramural program was implemented to address variables highlighted on the SIP. The purpose of this research was to examine and assess the impact of the intramural program on school improvement Ellerbe Middle School. The program was implemented primarily using the Sport Education Model. It utilized team sports and fell into a natural progression of physical education/team sport opportunities at the school. It was unique compared to other programs, allowing for extracurricular activity during school hours. This eliminated the need for additional transportation of students to and from school to participate.

The study yielded mixed results, with positive findings coming from student surveys showing perceptions of the benefits in areas such as 1) fun, 2) winning, 3) academics, 4) being active, and 5) team collaboration. Statistical testing proved inconclusive in supporting improvements in attendance, behavior, and academic performance during intramural participation. Researcher observation highlights included leadership opportunities, successful play, and communication.

It is the hope that the results of this study will lead to modeling and replication of intramural programs in other area middle schools. Despite not showing statistical significance, many positive outcomes related to the intramural program were reported by the students and researcher, such as perceived academic readiness, fun, leadership opportunities and team membership.

THE EFFECTS OF AN IN-SCHOOL PHYSICAL ACTIVITY PROGRAM ON  
SCHOOL IMPROVEMENT

by

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I would like to dedicate this work to my wife, Deborah, my daughter Mylan, and all the students at Ellerbe Middle School. I would like to thank Dr. Jeff Maples, RCO Superintendent, Melvin Ingram, EMS Principal, and Derek Anderson, EMS teacher and coach for your help and support of the EMS intramural program. Lastly, many thanks to Drs. Michael Hemphill, Pam Kocher Brown, Diane Gill, Benedict Dyson, and Erin Reifsteck for their support throughout the Ed. D program and dissertation process.

APPROVAL PAGE

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## CHAPTER I

### PROJECT OVERVIEW

Middle school students who have missed excessive amounts of school performed lower academically and participated in higher rates of negative behaviors (Every Student, Every Day, 2016; Girch, 2015; Shoenfelt & Huddleston, 2006). Nationally, 14% of the school population missed over 15 days per school year, and each day 6% of the Richmond County, NC student population is absent (Chronic Absenteeism in the Nation's Schools, 2016; NCPS, 2018).

Public school physical education teachers have been challenged by their districts to develop strategies to combat absenteeism, negative student behavior and poor academics. At Ellerbe Middle School (EMS), physical activity programming was one strategy used to address these variables. Athletics and physical activity have been among the favorite activities of middle school students. It was the intention that providing extra opportunities for sports participation would increase motivation to perform better academically and attend school more regularly (CDC, 2010). While many different types of before and/or after school activity programs have been developed to engage students, the use of an in-school, extracurricular physical activity program could be a key factor of overall school "improvement".



The objective of this research project was to assess the Ellerbe Middle School in-school intramural program for its effectiveness on student attendance, academic performance, and behavior. At the completion of the project, it was hoped that results would support dissemination and program modeling at other schools. The intramural program at EMS was strongly supported by the principal, school improvement team and district administration.

### **Significance**

The EMS intramural program was specifically identified in four of the previous five school improvement plans (SIPs) as a strategy to improve student performance variables. SIPs were strategic plans that schools used to address the initiatives of the NC State Board of Education, local school districts, and individual schools. In the 2014-15 EMS SIP, the implementation of an intramural program was identified to address school goal #3, “By the end of the 2014-2015 school year, Ellerbe Middle School will decrease 10-day absences from 32% to 16%.” This school goal was in support of the Richmond County NC School District goal, “Richmond County Schools students will be healthy, responsible, and afforded a positive learning environment”. In other SIPs, 2015-2018, the intramural program was identified to address school goal #4, “By the end of the 2015-2016 school year, Ellerbe Middle School will decrease discipline referrals by 10%.” EMS included the intramural program as one of the cornerstones of the SIP to address state, district and school initiatives and provide support for students.

## **Background**

Literature has consistently shown that student absences have been an issue nationwide. Research has shown a strong correlation between absenteeism and school dropout rates (Girch, 2015). Chronic absenteeism or missing at least 10% of school days in a year for any reason, has been identified as a primary cause of low academic achievement (Every Student, Every Day, 2016). The two main areas of academic performance affected by absenteeism were student grades and standardized test scores. Students who were considered at-risk for truancy, the act of being absent from school without good reason, have earned significantly lower grade point averages than their peers (Shoenfelt & Huddleston, 2006). There has been concern that students who were absent from school on days that preceded the administration of standardized tests scored lower than their present counterparts (Cosgrove, Chen & Castelli, 2018). Students who have shown habitual truancy have been much more likely to exhibit criminal behaviors (Dukes & Stein, 2001). Truancy has led to destructive social effects for young people. These were evidenced in the form of drug or alcohol abuse, violence, and crime (Rodriguez & Conchas, 2009). The detrimental effect of school absences has been noted in research.

The CDC showed five areas that contributed to the Comprehensive School Physical Activity Program, (CSPAP) model (CDC, 2013). They were: 1) Physical Education, 2) Physical Activity During School, 3) Family and Community Engagement, 4) Staff Involvement, and 5) Physical Activity Before and After School (CDC, 2013). The EMS intramural program contained aspects of the five CSPAP areas. The unique

characteristic of EMS' program was the way it combined two of the CSPAP areas, activity at school and activity before and after school. The intramural program took place during the school, at the beginning of the day. Students had the opportunity to be active during the time they were normally at school, yet they received the benefits from bouts of physical activity before they entered the academic portion of their day. The CDC recommended that recess should be offered in school while intramurals should be offered before or after school (CDC, 2013). EMS offered intramurals during school. Further, since EMS students were not offered recess during the school day, intramurals served as the alternative to physical education class for physical activity.

Beddoes and Castelli (2017) noted that many schools no longer offered recess to middle school students, though it was considered developmentally appropriate. The publication suggested drop-in activities where students who completed academic activities could transition to physical activity opportunities. The EMS intramural program offered this opportunity with the drop-in activity during the homeroom period. Another factor determining the success of the CSPAP model was administrator and school buy-in. Centeio and McCaughtry (2017) listed principal engagement as the first step of CSPAP implementation. The intramural program at Ellerbe Middle School had support from the principal (See Appendix A). This support protected the program and ensured the time necessary to function during the school day.

The EMS intramural program was grounded in best practices in physical education. The program engaged students by offering increased activity time and practices that best met students' educational and social needs. The Society of Health and

Physical Educators (SHAPE) released an organized list of best practices in physical education in 2009. Among those demonstrated by the EMS program were 1.2.1, “Students were encouraged to participate in physical activity outside of the physical education setting”, and 1.7.1, “Teachers developed learning experiences that helped students understand the nature of and different kinds of competition” (SHAPE, 2009).

Physical activity programs have been given minimal time to deliver activity opportunities. It was imperative that programs made the most of this time. Activity programs should have provided opportunities for physical activity and sought to ensure opportunities for all students to be physically active in a safe, inclusive environment (Erwin, Beets, Centeio, & Morrow, 2014). Further noted was the encouragement of activity outside of physical education classrooms (Erwin et al., 2014). A quality program equipped students with the knowledge and skills for lifetime activity (Erwin et al., 2014). Intramural programs were cited as a key feature to this goal.

Researchers attempted to link participation in intramural sports with academic performance. A study focused on eight grade African American students found that sports participation was positively associated with academics, including the desire to perform well throughout middle and high school (Braddock, Royster, Winfield, & Hawkins, 1991). In 2010 a CDC report found positive associations between activity program participation and academic performance (grades and attendance), that GPA was positively associated with extracurricular physical activity, and there may have been a range of benefits for students, including increased self-worth, educational aspirations, class interest, homework completion, and smaller dropout rates (CDC, 2010).

Not all research has shown positive relationships between physical activity, sports, and intramural participation with the variables tested in this study. Exploring physical activity of middle school students, researchers were unable to establish a connection to increased academic performance (Fox, Barr-Anderson, Neumark-Sztainer, and Wall, 2009). There were studies reporting mixed results. Guevremont, Findlay, and Kohen (2013) found that participation in-school activities, both sport and non-sport related, had positive associations with academic outcomes while also finding that weekly participation in intramurals increased the chances of students failing a course.

An area that may have offered additional benefits to intramural participants was school connectedness. School connectedness is defined as the quality of the social relationships within school communities (Rawatlal & Petersen, 2012). Connectedness is achieved by a sense of belonging, climate, involvement, and motivation (Rawatlal & Peterson, 2012). Students were successful when they felt connected with school (Blum, 2005). Benefits of connectedness included a decrease in health-compromising behaviors and an impact on academic achievement (Blum, 2005). There was evidence from controlled trials, longitudinal, and cross-sectional studies that a sense of connectedness was protective of mental and emotional well-being (Rawatlal & Petersen, 2012). These analyses used data from a nationally representative sample of 7th-12th grade students to test the association between connectedness and features of the school such as discipline strategies, teaching styles, and participation in extracurricular activities (Rawatlal & Peterson, 2012). A meta-analysis concluded that activity had a positive association with school engagement (Owen, Parker, Van Zanden, Macmillan, Astell-Bert, & Lonsdale,

2016). Owen and colleagues (2016) found that physical activity, in terms of school engagement, was beneficial to adolescents.

In research on classroom activity breaks, Goh, Hannon, Webster, Podlog, and Pillow (2014) examined the use of the Take 10! program to incorporate activity into the academic day. Benefits were noted students' psychomotor and cognitive domains (Goh et al., 2014). Energizers, activities approximately ten minutes or less in duration, showed links to improvements in both daily step count and on task behavior in students who utilized these activity breaks (Mahar, Murphy, Rowe, Golden, Shields, & Raedeke, 2006). Bailey and DiPerna (2015) reported convincing statistics on student fun, feelings of fitness, better focus, and excitement about school. The EMS intramural program resembled Take 10! and Energizers. In addition to the activity time, the EMS program implemented a curriculum implementation to ensure maximum student benefit.

### **Sport Education**

The EMS intramural program was implemented using the sport education model (SE). Siedentop (1998) cited six features to the sport education model, which were 1) seasons, 2) affiliations, 3) formal competition, 4) culminating events, 5) record keeping, and 6) festivity. The EMS intramural seasons ran nine weeks, much longer than normal PE units. Students were placed on teams for the entire season. The season scheduled formal competition in a regular season. A postseason tournament was the culminating event. Records were kept including players, schedules, and wins/losses. The season champions were rewarded with a t-shirt (See Appendix J) and recognized at a school-wide awards assembly. A team photo was displayed in the hallway at EMS.

Hastie and Casey (2014) listed five aspects of SE which could not be compromised if implementing sport education. To ensure the fidelity of the sport education model used in the EMS program, these were considered during planning. Fidelity aspects were: 1) extended period of time over which the unit took place, 2) students remained on the same team for the duration of the unit, 3) the inclusion of developmentally appropriate competition, 4) the taking of various roles and responsibilities by students other than that of player, and 5) the entire experience took place in an atmosphere of festivity. This fidelity was a priority of the EMS program.

Siedentop (1998) stated that SE had three primary goals, helping students become more 1) competent, 2) literate, and 3) enthusiastic as persons of sport. Implementation of SE produced 1) student enjoyment, 2) affiliation, 3) connection with peers, 4) increased level of responsibility, 5) positive social relationships, 6) heightened sense of inclusion, 7) communication between peers, 8) comfort in voicing opinions with both classmates and teachers, 9) experiencing competence, 10) control over learning and 11) increased self-direction (Perlman, 2010). Another article by Perlman and Goc Karp (2010) stated that the SE model, embedded in the self-determination theory, provided an environment that supported relatedness and autonomy in both students and teachers. Autonomy perception in students was a positive indicator of motivation and sequentially an increase in moderate to vigorous physical activity in secondary students (Kajalas-Tilga, Koka, Hein, Tilga, & Raudsepp, 2019).

Further benefits of implementing SE were seen in studies, and it was the hope of the researcher that these benefits would emerge in the EMS intramural program. These benefits of SE included:

- SE allows students the opportunity to hone skills and values including leadership, teamwork, autonomy, responsibility and motivation through the different learning activities in which they participate (Oliver & Nieves, 2019). Students also felt like they understood and invested in the content more (Cruz, 2008; Hastie, 1998).
- Students receiving the SE model showed less social appearance anxiety (Ermis & Imamoglu, 2019). Students also saw benefits related to team collaboration and cooperation (Cruz, 2008).
- The use of SE supported student motivation (Perlman, 2014). SE units minimized off-task behaviors and initiated improvements in personal skill development) and students were exposed to environments of inclusiveness and team orientation, and marginalized students were able to show growth (Perlman, 2014; Hastie, 1998; O'Neil & Krause, 2016).

### **Methods**

The EMS intramural program was a team sports physical activity program that operated in seasons, each lasting nine weeks, or one academic quarter. Included is data from the first quarter of the 2019-2020 school year. Program participants were seventh and eighth grade students. A detailed description of the EMS intramural program is included in Appendix K.



## **Settings**

Ellerbe Middle School serves grades sixth through eighth and is located in Ellerbe, NC, in the northern rural area of Richmond County. The school has 230 students. It employs 22 faculty and staff members and is the smallest of the Richmond County Middle Schools. A more detailed description of Ellerbe Middle School is included in Appendix P.

## **Participants**

The ethnicity of the students at EMS was approximately 33% Caucasian, 33% African American, 30% Hispanic, and 4% Native American and mixed-race. The participants varied in age from 12 to 14 years old and were 65% male and 35% female. The gender ratio was skewed toward males slightly more than normal. This could have been due to multiple factors, including the limiting of participants in the first season to only 7<sup>th</sup> and 8<sup>th</sup> grade students and the trend that the usually evens out as the year progresses. The next two intramural seasons of the 2019-2020 school year righted themselves, having more of a 55% male to 45% female participant ratio. Ninety-seven students participated in the program during the first quarter. Eighty-six students who provided assent and parental consent were participants in the study. Eighty student surveys were returned for analysis.

## **Design**

The study used a mixed-methods design. The quantitative variables (attendance, student behavior, and academic performance) were analyzed using a two-tailed paired t-test. The purpose was to discover evidence of change over time (positive or negative)

from the academic quarter prior to intramural play and the first academic quarter of intramural play.

Extraneous variables could have affected attendance data. They were sickness, family emergencies and injuries that prevented students from attending school. To control for this, unexcused absences were used in statistical testing, which eliminated excused absences. The second part of the study focused on qualitative data. Two approaches of reasoning used to acquire new knowledge are inductive and deductive. Inductive reasoning seeks to discover new patterns in data without any preconceived frame of reference while deductive reasoning takes its structure from a pre-existing framework of theory (Braun & Clarke, 2006; Taylor, Bogdan, & DeVault, 2015). Methodology in the EMS study included combinations of inductive and deductive reasoning to inform the data analysis (Richards and Hemphill, 2018). Like the quantitative research, a portion of the qualitative methodology centered around pre-established themes generated by the researcher, based upon extensive experience and time investment into the implementation of the program. Behavior, attendance, academic performance were the three focused quantitative variables measured by EMS. Additional items that were predetermined: 1) player/team success, 2) sportsmanship, 3) leadership, 4) conflict, 5) collaboration, and 6) negativity. There were sections for notation for these on the formal observation documents and embedded in participant survey/questionnaires. The formal observation document, created by the researcher, is included in Appendix C. There were 6 formal observations completed by the researcher, where intramural play was observed while another teacher officiated. Notes were taken on the quantitative

variables as well as the other predetermined items. Also accounted for in these documents was the space and capability for induction. Many themes, discussed later, emerged from student perception and repeated, unaware mention in the daily reflections.

The researcher aimed to establish strength in the qualitative research in the methodology to validate and substantiate this project. The researcher established prolonged engagement. According to Lincoln and Guba (1985), this is done by the researcher putting significant time into the environment, becoming familiar with the feelings and tendencies of participants and establishing trust to allow participants to share uninhibited feelings. This applied here as the researcher implemented the intramural program for multiple years and had extensive relationships participants in the context of the program and other contexts within the school environment. The researcher had discussions with stakeholders linked to the program over the past four years, including participants, EMS teachers, parents, administrators, college peers and faculty, and program modelers from other schools. Multiple viewpoints and research tools regarding perception of the program were used for a clearer and less biased analysis of program effects (Richards & Hemphill, 2018, Sin 2007). Data was collected using participant and researcher/observer input. This followed patterns of triangulation, which is the use of several methodologies to study the same phenomenon (Lincoln and Guba, 1985; Mays & Pope, 2000). An addition made by the researcher was to ensure persistent observation, providing depth in the study and attempts identification of those elements most relevant and relatable to the research and true to the characteristics of the situation (Lincoln and

Guba, 1985). This came in the form of daily observations which allowed for new themes to arise that may not have otherwise been noted in the less frequent formal observations.

Participants were surveyed on their perceptions of the EMS intramural program (See Appendix B). The survey used a combination of semantic differential questions, Likert scale questions, and open-ended questions. In addition, researcher observations (See Appendix C) and daily reflections (See Appendix L) were recorded during the intramural season. There were six formal observations and fifteen daily reflections.

Data was analyzed using color coding and symbolization. The researcher studied each document using multi-colored highlighters. Each time a deductive theme was present, it was coded by color. After color coding, notations were made for the most informative pieces of data to be used to synthesize a more descriptive story. Next, the data was reviewed again by the researcher, this time looking for new themes. Once an idea appeared 3 times it was given a symbol, being circled, underlined, starred, asterisked, or classified with another symbol. The researcher built a symbol list with the corresponding ideas. In reanalyzing the data, each time an idea was present it was marked with the symbol. A master list of the most common ideas was tabulated, with the most popular becoming the emergent themes shared in the results section. Like the deductive themes, the inductive themes were examined, and critical pieces of descriptive information were taken to assist with the result discussion. The researcher used the constant comparative method (Glaser & Strauss, 1967; Maykut & Morehouse, 1994). This was accomplished by using incidents and units from the surveys and observations and coding data into categories (Glaser & Strauss, 1967; Lincoln & Guba, 1985).

Categories were taken from participants' language and responses and from the researcher's identification of what was important to the project.

### **Measures and Data Collection**

Data on student attendance and academic performance was collected from PowerSchool, an online system that the Richmond County, NC school system used to keep all records for students. These records included demographics, attendance and academic records. Data on student behavior was collected using Educator's Handbook, a system designed to record and store student behavior records. The researcher collected all data on program participants' behavior and was assisted by the EMS data manager in the accumulation of the demographic, attendance, and academic data.

Data was collected on attendance rates, behavior incidences (major and minor) and core class (English, Math, Social Studies, Science) averages (in numerical form) from each observed academic quarter. The data collection occurred during the first academic quarter of the 2019-2020 school year.

### **Results**

There are four tables showing the results of various measures within the study. Table 1 shows the p-values of the Paired T-Tests for behavior, attendance and academic performance and whether the null hypothesis, which was that there would not be significant change over time in these variables, was true. Table 2 shows the mean and standard deviation of each of the variables before and during intramural participation. Table 3 includes the mean and standard deviation of the semantic differential questions used to gather participant perspectives of intramural participation. Table 4 shows the

mean and standard deviation of the Likert scale questions, also used to gather participant perspectives of intramural behaviors.

The results of the two-tailed paired t-tests were included in Table 1. Mean and standard deviation of each data set were included in Table 2.

Table 1. Paired T-Test (2-Tailed) on Measures Before/During Intramural Participation

Measure	P-value	Null Hypothesis
Major Behavior Incidences	0.935	True
Minor Behavior Incidences	0.489	True
Attendance	0.931	True
Grades	0.201	True

*Note.* To show strong statistical significance between data sets, the p-values for each test must have been less than .05.

Table 2. Mean/Standard Dev. of Data Sets Before/During Intramural Participation

Measure	Mean Before	SD Before	Mean During	SD During
Maj. Behavior	0.54	1.12	0.53	1.35
Min. Behavior	0.41	0.95	0.48	1.34
Attendance	1.80	2.14	1.83	2.17
Grades	85.94	8.69	85.42	8.27

### Semantic Differential Scale

The statistics for the semantic differential questions were included in Table 3.

Table 3. Semantic Differential Question Data: Mean and Standard Deviation

Question	Mean	Standard Deviation
Fun/Boring	1.11	.316
Challenge/Easy	2.59	1.325
Competitive/Friendly	1.66	.875
Team/Individual	2.65	1.553
Important/Not Imp.	1.51	.815

*Note.* Means closer to 1 were representative of the left adjective, 5 the right adjective.

## Likert Scale

The Likert scale questions and statistics were shown in Table 4. Likert Scale questions were included in the participant survey/questionnaire.

Table 4. Likert Scale Questions and Mean and Standard Deviation of Student Responses

Question	Mean	Standard Deviation
Q1. I look forward to the days I have intramural games.	1.31	.568
Q2. I don't like missing my intramural games.	1.66	1.021
Q3. I feel like part of a team when I play intramurals.	1.79	.951
Q4. I make new friends when I participate in intramurals.	2.20	1.143
Q5. I don't do well in class after I play an intramural game.	4.14	1.285
Q6. I wish there were different sports offered for intramurals.	2.32	1.319
Q7. It is important to be at school on days I have intramurals.	1.70	1.014
Q8. I feel like playing intramurals helps me to get into better shape.	1.93	1.298
Q9. I really want to win my intramural games.	1.30	.817
Q10. Playing Intramurals makes me a better student.	2.18	1.198

*Note.* 1-Strongly agree, 2-Agree, 3-Neither agree nor disagree, 4-Disagree, 5-Strongly disagree.

## Themes

Based upon the researcher's experience in implementing the EMS intramural program, there were five pre-established themes sought in the student surveys, observations, and daily reflections of intramurals. These were 1) success of play, 2) sportsmanship, 3) leadership, 4) conflict/negativity, and 5) team collaboration. Six

themes emerged from the data. These were 1) fun, 2) communication, 3) decision making, 4) time out of class, 5) winning, and 6) being active. Also included were student responses and researcher notations in the variables of attendance, behavior and academic performance.

### **Discussion**

The purpose of this study was to assess the EMS Intramural program's effects on school improvement and determine whether participation in the program would show improvements in the variables of student attendance, academic performance, and behavior. Further, the purpose was to analyze perceptions of participation in the intramural program in those same variables and any themes that were undiscovered. Journal notes can be found in Appendix O. This technique, noted by Richards and Hemphill (2018), took place after each round of coding data and focused on supporting themes that arose during analysis. Notes also included specific reflections on students and subgroups that support School Improvement Team efforts.

Data shows there were strong student perceptions of benefits from participation in the areas of 1) success of play, 2) winning, 3) being active, 4) team collaboration, 5) fun, and 6) academics. These aligned with results by Romano and Timmers (1978), which stated that participation in intramurals offered benefits to students including participation, physical activity, and fun. In contrast, participants had strong feelings on winning. This focus was not noted as an advantage to participating in intramurals (Romano & Timmers, 1978). Conversely, Braddock and colleagues (1991) found that winning in sports competition increased the self-image and confidence of students.



Student perspectives for intramural participation were very positive. Participants responded ninety times that playing intramurals before heading to first block was beneficial. Common survey responses were that participation “helped me to settle down and focus” and “woke me up before heading to class”. Several participants noted the importance of performing well in class so they would remain eligible to play. These perceptions mirrored results found in the Braddock and colleagues (1991) study which showed participation in intramurals improved student desire to perform well academically. Study participants’ perceptions supported data from Bailey and DiPerna (2015), who found that 76% of students communicated paying better attention in class after engaging in physical activity.

The study did not show significant statistical support that participation in the intramural program had a positive or negative effect on academic performance. Some participants showed improvements while others did not. Like the EMS study, Fox and colleagues (2009) could not show significant statistical associations between physical activity participation and increased GPAs in middle school students. Guevremont and colleagues (2013) noted both positive and negative associations between in-school activities and academic outcomes.

It is possible and would align with previously noted research that improvements in academic performance and the other noted variables in participants could be seen had participants been tracked over a longer time frame. Additionally, it is important to note the practical significance of the data and project in its entirety (Richards and Hemphill, 2018). Data allows the researcher and school improvement team to pinpoint which

students and subgroups of students showed improvements in the variables during participation. These students can be monitored over the medium and long term to see if the improvements are sustained or increased. In the short term, enrichments and interventions can be tailored to certain students who responded well to intramural participation, while using the option of allowing/disallowing participation as a motivator to students who did not show improvements or had declines during participation. This ability to use the data that did not specifically show statistical evidence is extremely valuable to school improvement. Having insight and data on individual students arms the researcher and SIT with helpful strategic information to tailor intervention and target individual students to get them going in the right direction.

There was negative case analysis, which is a point in the research where data may contradict patterns noted within data analysis (Lincoln & Guba, 1985; Mays & Pope, 2000; Patton, 1999). This comes from the data on academic performance, which did not show statistical significance in academic performance change before and during intramural participation but perceptions from participants show that participating in intramurals prepared them for success in their academics following intramurals. There was a point of revelation in the results of the study, revealing a failure on the part of the SIT to transfer the benefits of PA and student perception of academic preparedness into statistical evidence of increased academic performance following program participation.

Students perceived it important to be present for intramural games. The average mean for Likert questions related to attendance was 1.56, falling between strongly agree and agree that being present for intramurals is meaningful. This data related to a previous

study that showed participants in sports and extracurricular activities had better attendance than non-participants (Harrison & Narayan, 2003).

An important theme that emerged from the researcher data was leadership. In daily reflections, the researcher noted numerous instances where students emerged as the leaders of their teams and demonstrated positive characteristics afforded by intramural participation. These occurrences supported findings discussed by Farrell and Thompson (1999), which reported that intramurals contributed to the development of character and leadership skills in program participants. These leadership skills allowed students to grow, understanding what types of skills and attitudes were needed to lead in all areas of school life, both in physical education and academic areas (Meuse, 2013). Outside of school, leadership and character traits developed in intramurals and recreational sports were important to a functioning society (Callaway & Twitchell, 1987). This article noted that students in intramural sports have opportunities to determine acceptable standards of group and individual behaviors regardless of situation (Callaway & Twitchell, 1987).

Another relevant student perception of intramural participation was the acknowledgment that participants found value in the opportunity to be physically active and to get fit. This perception reiterated findings by Harrison and Narayan (2003) which found that students who participated in sports and intramurals were more likely to be physically active.

## CHAPTER II

### DISSEMINATION

The dissemination piece for this dissertation encompasses work done with the Ellerbe Middle School Improvement Team. The researcher is the Encore (Healthful Living, Art, Music, Media, Technology) faculty representative to the SIT. The team is responsible for assessing the previous year's improvement plan and constructing the new plan for the upcoming school year. As noted in chapter 1, the EMS intramural program has been one of many tools used to stimulate improvement in various school related variables.

The school improvement plan includes the four main goals of the plan as well as strategies the school uses to address the goals. The goals are often broad, and the strategies are vague. They may not show the totality of what the school is currently doing or could possibly do to have an impact on school improvement. The focus of this dissemination is to highlight the data collected by the researcher and to show how the intramural program specifically contributed to the 2019-2020 improvement plan and, potentially, assist with accomplishing improvement plan goals in 2020-2021.

The EMS SIT met multiple times during May 2020. Each meeting was conducted using a Zoom virtual meeting. Stakeholders making up the 2019-2020 SIT were the researcher, principal, academic coach, counselor, school administrative assistant, parent representative, and faculty representatives from each of the school's 3 grade levels. The

improvement plan was made available to the team via a computer program called Indistar, and each SIT member had access throughout the year to this document. Prior to the first meeting, the team received an email, which included the plan, along with the descriptors and strategies that had been developed at the end of the 2018-2019 year and throughout the 2019-2020 school year. Additions and updates were also included that occurred in previous school improvement meetings, and team members were asked by the principal to review all documents prior to meeting. During the meeting, the document was screen-shared virtually so that all parties could view the document while working on the plan.

Specific to the research on intramurals, the principal asked the researcher to review the plan and develop a report (Appendix Q) which showed the specific links and contributions that the intramural program made to the SIP. During the SIT meetings, the researcher screen shared the report when appropriate to show how the intramural program data applied to each goal. Further, the principal asked the researcher to review the strategies to see where the intramural program fits appropriately. It was requested that the researcher highlight where the intramural data could be used to assist any of the listed strategies, and to determine where particular statistical data and qualitative data applies to the goals and strategies within the plan. Throughout the meetings the intramural data report was shared when appropriate to document reviews and team discussions.

Goal #1 on the SIP states that by the end of the 2019-2020 school year, EMS will increase the school performance composite score from 56% to 66% based on reading, mathematics, science assessments and English learner progress. Further explanation of

the school performance composite score states that each district school gets a grade for the year. 80% of the grade comes from achievement (reading, math and science EOG scores) and 20% comes from growth. The equation for determining the composite score is:  $.80$  (numerator/denominator of proficient scores +  $.20$  (growth index) = performance composite score. For the purpose of this document, the composite score goal falls under the category for academic performance.

Before going further into this part of the dissemination, it should be noted that the Covid-19 pandemic, a respiratory disease that necessitated school closure on March 13, 2020 for the remainder of the school year, cancelled end of grade testing. This adjustment to the assessment plan makes it more difficult to analyze the data related to two of the SIP goals.

For Goal 1, the SIT had to look at quarterly grades and NC Check-In test scores for the second round of testing to get a picture of student academic growth during the 2019-2020 school year. The data from this dissertation study provided a clear look at the difference in quarterly academic performance between the quarter prior to intramural participation and the quarter of first participation. The researcher screen shared the first table with the team and highlighted that 40% of intramural participants showed an increase in their core grade average during their participation in the intramural program. It was then noted, although not directly relevant to this dissemination, which students saw growth in their academic performance along with the ones that did not. This relates to more than one of the strategies the team listed as possible ways to address Goal #1. Offering extracurricular activities, enrichments, and reward programs is one way to

entice students to work harder and improve their grades and test scores. Knowing which students saw growth in their academics during intramural participation allows the SIT to customize enrichment plans for individual students, to hopefully find the right recipe to kickstart student improvement and success.

The researcher further shared some data associated with Goal 1. The data indicated that students perceive intramurals to be helpful and it was supported by Likert Scale responses and open-ended student answers. In Likert Scale question #5, “I do not do well in class after participating in intramurals”, the mean response score was 4.14. This falls strongly into the disagree choice. This indicates that students do not perceive participation to be a detriment to their performance in class. In open-ended student responses, students indicated 90 times that participating in intramurals helped them to get prepared for their first block class. This was the third strongest theme that emerged from the study data on student perception.

Goal #2: By the end of the 2019-2020 school year, all sub-groups at Ellerbe Middle School will be recognized as having met or exceeded expected growth. The dissertation study did not collect data based upon specific subgroups, which consists of groups by race as well as students who are labeled Exceptional Students and English Language Learners. This data could be found within the intramural data collected if requested by the researcher but was not part of the plan listed on the SIP for 2019-2020. Again, like Goal 1, the Covid-19 pandemic makes assessing this goal impossible, and the SIT will have to choose alternative means to determine whether this goal was met.

Goal #3: By the end of the 2019-2020 school year, Ellerbe Middle School will decrease out of school suspensions from 350 days to 210 days. Student behavior is one of the variables covered in the dissertation study. Both major and minor behavior incidences were monitored in the academic quarter prior to intramural participation and during the quarter of first participation. For the SIP, major behavior incidences were presented to the team. Suspensions result from major behavior incidences. Minor incidences result in classroom timeouts and warnings and never result in any type of suspension. During the review of Goal #3, the researcher screen-shared a table related to the goal. It was initially noted that 60% of intramural participants have no major behavior incidences in either academic quarter. That means that 40%, or 34 students had at least 1 major behavior incidence in either quarter. Of that group, the researcher noted that 54% of those students saw a decrease in major behavior incidences during the academic quarter of intramural participation. Like the presentation with Goal #1, the SIP can note which students saw improvements in behavior related to participation in intramurals. This allows the team to customize interventions, enrichments and rewards that have proved to work for individual students. Before closing this portion, the researcher noted qualitative data related to Goal #3. On open ended questions, students did not show strong perceptions between participation and its influence on their behavior. Of the 17 mentions, most stated that they wanted to behave so they were not ineligible for intramurals.

Goal #4: By the end of the 2019-2020 school year, Ellerbe Middle School will decrease the number of students missing 10 or more days from 40 students to 30 students.



Attendance data for intramural participants was gathered during this study. Like the other variables, student data was collected in the academic quarter prior to participation in intramurals and during the academic quarter. The researcher screen shared a table related to this goal of the SIP. Of the 85 participants, 67 of those saw changes in their attendance during participation. Of those 67, 49% saw attendance increase, with some of those dramatically. Like the other goals, the SIT can see which students saw improvements in attendance. This again allows for customization of interventions, enrichments, and rewards for meeting educational goals.

This part of the assessment of the SIP is very important. The staff at EMS is expected to provide an individual plan for each student who needs assistance at EMS. If a student is identified as needing assistance or intervention, a team of faculty must meet with the student and parent and devise a plan specific to the student. In all three variable areas, it is crucial to have the impacts on specific students to assist with this process.

The researcher also shared the data associated with Goal #4. -In Semantic Differential Questions, students viewed intramurals as important. The mean score for the important/not important was 1.51, halfway between the two strongest scores for importance. In Likert Scale questions, Question 1, 2, and 7 relate to attendance and the importance of being at school for intramural games. The mean score for #1 was 1.31-Strongly Agree, #2 1.66-Agree, and #3 1.70-Agree. These support student perception that being at school for intramurals is important.

The SIT has also collaborated to come up with explanations of strategies that will be and have been used to meet each SIP goal. While these strategies are broad, they do

include opportunities for the school to use the intramural program as a specific example of the noted strategy. The second responsibility of the researcher was to examine each of the listed strategies and to include the intramural program where appropriate. These inclusions follow.

Strategy A4.01: The school implements a tiered instructional system that allows teachers to deliver evidence-based instruction aligned with the individual needs of students across all tiers. When fully met, faculty and staff will align our intervention, enrichment, and core instruction seamlessly with student data. Our scheduling and planning of student services will reflect the alignment with student instructional needs. We will experience growth across various student demographic categories. Our grade level, vertical, and content teams utilize data along with the Multi-Tiered System of Supports to personalize learning for students. Based upon collected data, we can see who is benefitting in each variable due to intramural participation. Using that data, we can update the recruitment process of intramurals, as well as change the factors that may determine the eligibility to participate in the program each 9 weeks. Further, we know that intramurals are a strong enrichment we can offer students. Lastly, we may alter the scheduling of the intramural program to allow other intervention or enrichment programs to function while continuing the offering of intramurals.

Strategy A4.04: The school promotes social/emotional competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions. At full implementation, social and emotional learning instruction as well as academic advisement will take place during a

weekly advisory period. Students will receive structured and consistent intervention during these periods as they remain with an advisor through sixth through eighth grade. While advisement is a good idea, it is just one of many ideas that we can use to support socio-emotional learning. Intramurals is a fine example of rituals and routines at EMS, and it meets the description 100% as far as student competitions. We have hallway wall displays, have a consistent addition to awards assemblies, and make the school smaller by long-standing team membership.

Strategy A4.06: All teachers are attentive to students' emotional states, guide students in managing their emotions, and arrange for supports and interventions when necessary. The implementation of a Multi-Tiered System of Supports integrating PBIS (Positive Behavior Intervention & Support) and academic intervention/enrichment will provide a specific rubric for academic and behavioral expectations for students. By implementing this uniform program, problematic or concerning behaviors will be easier to identify and there will be a system in place to positively support the improvement of the students. The Intramural Program can be used as support and intervention for students throughout the population and school year. We could establish baseline expectations in the areas of attendance, academic performance, and behavior to determine eligibility. Further, we could include intramural participation on IEPs and other more informal plans and agreements that we make with students. Further, these baselines and expectations can be tailored to specific students based upon already collected data.

Strategy A4.11: The school provides all students extended learning opportunities (e.g., summer bridge programs, after-school and supplemental educational services,

Saturday academies, enrichment programs). At full implementation, we will implement a range of extra-curricular experiences occurring before and after school and during the summer such as summer reading list/Accelerated Reading, STEM experiences, as well as tutoring services for our students. Intramurals is a perfect extra-curricular activity. Now that the gym has been climate controlled, we could offer programs related to intramurals in the summer as both enrichment and fundraisers for athletics and other school programs. Further, we could offer other activity opportunities as enrichment for meeting certain goals within the school day. You could attach these opportunities to students completing or participating in the other programs like AR, tutoring, summer reading or other programs we create.

Strategy A4.21: The school selects, implements, and evaluates evidenced-based programs that enhance social/emotional competency. At full implementation, we will be able to effectively prepare for and address student issues through our social emotional learning programs as evidenced by our attendance, behavior, academic data. We have one set of data from the dissertation study that provides statistical information on all three of the listed variables as well as over 80 student surveys which enlighten us as to how intramurals affect students in the social/emotional areas. This data gives us a solid foundation to work from. With the use of PowerSchool and Educator's Handbook we have access to the data related to these variables to study over various time periods, individual and groups of students and variable relationships.

Strategy C2.01: The LEA/School regularly looks at school performance data and aggregated classroom observation data and uses that data to make decisions about school

improvement and professional development. At full implementation, we will use technology to document our efforts to regularly look at school performance data with the inclusion of aggregated classroom observation data via classroom walk-throughs and use this data to make decisions about school improvement and professional development needs. This study provides more data on student performance and encourages data organization and analysis into something that can be used. It has already been shown that it influences decisions based around school improvement and could guide professional development for our own faculty or for district faculty if it is consistent in showing benefits to schools and students.

At this time, the SIT will revisit the plan and make any necessary changes to the 2019-2020 plan, which is recorded within Indistar and available for district review by June 12, 2020. Once this is complete, the SIT will reconvene during early August of 2020, either physically or virtually (depending on the Covid-19 situation) and start the process of the 2020-2021 SIP. By this time, the district will provide feedback on the 19-20 SIP and will release new initiatives that we, as a district, will focus on as a whole. This combined with specific school goals, will be the basis of the goals of the new plan. Like done with previous plans, action steps will be recorded, many of which will include the data and other aspects of the EMS intramural program.

## CHAPTER III

### ACTION PLAN

Armed with the results of the study on EMS intramurals and the experience implementing this type of program enables a thorough action plan. There are many professional entities that could benefit from an intramural program like EMS', and the outline for the plan of action follows for local and state levels.

#### **Local**

Locally, there are numerous opportunities for action at the completion of the research project. These include district health council meetings, professional development, local newspaper articles, and program modeling.

#### **School Health Advisory Council**

During the October 2018 School Health Advisory Council Meeting (SHAC) the purpose of this research project was briefly introduced. It was presented by the researcher as a manner of new business. The Superintendent of Richmond County, NC schools, as well as multiple assistant superintendents were in attendance for this SHAC meeting. Updates were scheduled for each of the 2019-2020 tri-annual meetings.

#### **Professional Development**

The results of this study and researcher recommendations on the EMS intramural program will be made available to the EMS principal, faculty and Richmond County Schools curriculum specialist for physical education. This will be accomplished by an

infographic (See Appendix M) showing the key findings of the project. The researcher will collaborate with the RCS school district to lead a professional development (PD) session to healthful living teachers and administrators in the county. This action is supported in an article by Erwin et al., (2014), which suggested the benefits of uniformity within communities when implementing certain opportunities for physical activity. The district may consider offering similar opportunities at each school. The intramural program could be duplicated at each middle school in the district. The district offers three PD workday throughout the year for teachers, and the findings of this study would be beneficial to all schools in the county. At the conclusion the PD session, the researcher would become available to help specific schools develop and plan for their own intramural programs.

### **Article Series**

In an attempt create awareness of the program's (and project's) existence, its purpose, description, methods, and research results will be shared with Richmond County NC residents. This was accomplished in a three-part series of articles published in the Richmond Observer (RO), one of the area's two local newspapers. The RO is completely on-line, and articles are available through the RO website, smartphone app, and shared throughout various social media outlets. The series of articles have been published by the RO Sports Editor, Kyle Pillar.

The first article in the series was released to the public on Sunday, September 15, 2019 (See Appendix I). In summary, the article describes the researcher and his role at Ellerbe Middle School, a brief overview of the intramural program, an introduction to the

research project to be completed during the 2019-2020 school year, and the process by which parents at Ellerbe Middle School can consent to allow their students to be a part of the study. The article was, in addition to being released on the RO website and app, shared to social media (Facebook and Twitter).

The second article, released on Thursday, January 2, 2020, focused on a detailed description of the intramural program. Recruitment, team formation, scheduling, and implementation was covered (See Appendix I). This second release also detailed the data collection process and the types of data collected. This article provided a bridge to the third article, released on April 28, 2020.

The third article in the series is included in Appendix I and shared the results of the study. Statistical results were released and explained as well as a detailed summary on the qualitative data collected through activity observation, student surveys, and daily reflections of intramural games. Additionally, a recommended action plan was included with advice given on how to continue research, start-up similar programs, and use programs of this type to enhance the lives of students.

### **New Programs**

A similar program to the one offered at EMS has been duplicated within the RCO system. This program has begun at Mineral Springs School, the feeder elementary school to Ellerbe Middle. In a November 2019 meeting, the researcher met with 4<sup>th</sup> grade teacher and EMS basketball coach Thomas Shelton to discuss the possibility of offering intramurals to 4<sup>th</sup> grade students during recess. It was decided that a pilot offering would occur, with sign-ups beginning before the 19-20 Christmas Break and games starting



after the New Year. Signups were held the next week and there was enough interest to form seven teams. The first sport offering was soccer, and games were run Monday/Wednesday for the boys and Tuesday/Thursday for the girls during the thirty-minute recess time. Mineral Springs School has a soccer field beside the recess playground, with medium sized goals that can be moved to accommodate small sided intramural games. Like the EMS program, league winners were recognized with t-shirts at the Awards Day assembly.

Further, an information file has been created on the Richmond County Schools Google drive (See Appendix N) to be shared with all elementary and middle school Healthful Living teachers, providing instructions and guidelines to model the intramural program in their respective schools.

### **Statewide**

At the state level, there are two opportunities for action related to this research.

### **Grant Funding**

On November 11, 2019, Ellerbe Middle School was awarded with a \$1,150 Bright Ideas in Education Grant. Seth Allen, Regional Representative for Pee Dee Electric Company, along with RCO Superintendent Jeff Maples and EMS Principal Melvin Ingram, surprised a physical education class with the news. An article was released in the area's other newspaper, the Richmond County Daily Journal as well as a press release and picture on the RCO District website (See Appendix G).

The \$1,150 grant will fund the program for two years, allowing the school to purchase all necessary equipment and prizes associated with the program. The grant is

not bound strictly to the proposal writer, but to the school itself. Anyone working for the school that may inherit the intramural program could continue using the funds for program implementation.

### **Middle School Education Conference Presentation**

The researcher will lead a session presentation at the North Carolina Association for Middle Level Education (NCMLE) 2021 Conference, held in Greensboro North Carolina (See Appendix H). This proposal will be part of a larger proposal completed by the researcher, the EMS counselor and the EMS social worker. The proposal will highlight the strategies that Ellerbe Middle School uses to address school improvement, as well as Multi-Tiered Systems of Support (MTSS). While MTSS is a newer concept, unveiled in 2018, the intramural program has been one of the more consistent ways that EMS has supported students and addressed issues pertaining to attendance, academics, and behavior.

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APPENDIX A  
SITE PERMISSIONS

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Jeffery B. Maples, Ed. D.  
Interim Superintendent



PO Drawer 1259  
118 Vance Street  
Hamlet, NC 28345  
910-582-5860 Phone  
910-719-3024 Fax  
[www.richmond.k12.nc.us](http://www.richmond.k12.nc.us)

April 10, 2019

To Whom It May Concern:

In 2017, Ellerbe Middle School was recognized as a "School to Watch" by the NC Middle School Association. To achieve this level of performance, high-performing schools establish norms, structures, and organizational arrangements to support and sustain their trajectory toward excellence. They have a sense of purpose that drives every facet of practice and decision-making.

During the last 4 years Ellerbe Middle School has implemented an intramural program that supports best practices for middle schools. This program supports teamwork, fitness, and sportsmanship. Students and teachers look forward to this time and the intramural program at Ellerbe Middle School provides a "connection point" for our students.

Mr. Allen Adeimy has provided outstanding leadership in implementing this program and I fully support him doing his dissertation project using the EMS students in surveys, qualitative and/or quantitative research to assess the effectiveness of this program. He has assured me that all students will have parent consent forms and that all IRB procedures will be followed during this study.

It is my intentions to fully support this program for the 2019-2020 school year and if you have any questions, please do not hesitate to call me.

Sincerely,

  
Jeffery B. Maples, Ed. D.  
Superintendent

Mr. Melvin L. Ingram, Jr.

**Ellerbe Middle School**      Principal

128 Ballard Street Ellerbe, North Carolina 28338    Phone: (910) 582-7925    Fax: (910) 652-3106

Thursday, April 18, 2019

**Subject:** Site Approval Letter

To Whom It May Concern:

This letter acknowledges that I have received and reviewed a request by David Adeimy to conduct a research project relating to our intramural program and its effects on student outcomes at Ellerbe Middle School. I approve of this research to be conducted at our school. On the behalf of the Ellerbe Middle School Improvement Team. I commit to continue our intramural program as a part our school improvement plan for the 2019-2020 school year.

As a National Forum to Accelerate Middle Grades Reform 2017 " Schools to Watch" designee, we strive to place emphasis on strong academics, sensitivity to young adolescents' needs and interests, and a commitment to providing all students equal access to a high-quality education as a model for other middle schools. We look forward to understanding more clearly how our intramural program works to achieve these goals from a research-based perspective.

When the researcher receives approval for his research project from the university's institutional review board, we agree to provide the necessary access and availability in order for him to successfully complete the approved research project.

Sincerely,

Melvin L. Ingram, Jr.

Melvin L. Ingram, Jr.

Principal

---

APPENDIX B

STUDENT SURVEY/QUESTIONNAIRE

**Please mark X on the line that reflects your feelings about the Ellerbe Middle Intramural Program**

1. Fun \_ \_ \_ \_ \_ Boring
2. Challenging\_ \_ \_ \_ \_ Easy
3. Competitive\_ \_ \_ \_ \_ Friendly
4. Individual Focused\_ \_ \_ \_ \_ Team Focused
5. Important\_ \_ \_ \_ \_ Not Important

**Please rate your feelings about the Ellerbe Middle Intramural Program**

- 1-Strongly Agree
- 2-Agree
- 3-Neither Agree nor Disagree
- 4-Disagree
- 5-Strongly Disagree

1. I look forward to the days I have intramural games \_\_\_\_\_
2. I don't like missing my intramural games \_\_\_\_\_
3. I feel like part of a team when I play intramurals \_\_\_\_\_
4. I make new friends when I participate in intramurals \_\_\_\_\_
5. I don't do well in class after I play in an intramural game \_\_\_\_\_
6. I wish there were different sports offered for intramurals \_\_\_\_\_
7. It is important to be at school on the days I have intramural games \_\_\_\_\_
8. I feel like playing intramurals helps me to get into better shape \_\_\_\_\_
9. I really want to win my intramural games \_\_\_\_\_
10. Playing intramurals makes me a better student \_\_\_\_\_

**Please complete the following sentences**

1. The thing I like the most about intramurals is

---

2. The thing I would change about intramurals is

---

3. I think Ellerbe should have intramurals because it helps students to

---

4. Playing intramurals could keep me from getting into trouble at school because

---

5. I feel like an important part of my intramural team when

---

6. I think the best prize for winning the intramural championship in a sport would be

---

7. I would love to see other sports offered for intramurals including

---

8. I think being active before first block helps me because

---

9. I don't want to miss school on days I have games because

---

10. Intramurals is important to Ellerbe Middle School because

---

**Please include anything else about how you feel about participating in the Ellerbe Middle School Intramural Program**

---

---

---

APPENDIX C

INTRAMURAL OBSERVATION GUIDE

Date:

Sport:

During intramural games today, please indicate **each** occurrence (X) of the following:

---

*Success* (scoring,  
assists, tactical  
plays, defensive  
stops, other)

---

*Sportsmanship* (rule  
following,  
compassion,  
fairness)

---

*Leadership*  
(Coaching,  
instructing, conflict  
management)

---

*Conflict*  
(Arguments,  
aggressive play)

---

*Team Collaboration*  
(Encouragement,  
physicals signs of  
teamwork, high  
fives)

---

*Negativity* (**Insults,  
derogatory  
comments**)

---

## APPENDIX D

### STUDENT ASSENT FORM

Version 9/11/2019

Project Title: The Effects of an In-School Physical Activity Program on School Improvement

Principal Investigator: Coach Allen Adeimy

#### Why am I here?

I want to tell you about a research study I am doing. Research studies are done to find better ways of helping and understanding people or to get information about how things work. In this study we want to find out more about the effects of Ellerbe Middle School's Intramural Program on things such as your attendance, grades, behavior, feelings about school, and fun. You are being asked to be in the study because you have signed up to play intramural sports. In a research study, only people who want to take part can do so.

#### **WHAT WILL HAPPEN TO ME IN THIS RESEARCH STUDY?**

If it is okay with you and you agree to join this study, you will be asked to participate in volleyball or basketball intramurals (or both). When the intramural season is over, you will be asked to answer some questions about intramurals and school. You may also be asked to do an interview with Coach Adeimy to tell him a little more about how you feel about intramurals and school.

#### **HOW LONG WILL I BE IN THE RESEARCH STUDY?**

You will be in this study for the first 9-weeks, and second 9-weeks (or both) of this school year (2019-2020).

#### **CAN ANYTHING BAD HAPPEN TO ME?**

There is no risk to participating in this study. There are the usual risks of participating in intramurals, PE, and sports. You may get injured from playing sports.

Sometimes the questions I ask you might seem strange and make you feel uncomfortable/sad. This should NOT be the case in this study since you are just telling me what you think about intramurals and school. If anything hurts or you are uncomfortable with some of the questions, please let me know and I will stop or do whatever I can to make you feel better.



**CAN ANYTHING GOOD HAPPEN TO ME IN THIS RESEARCH STUDY?**

I do not know if you will be helped by being in this project. However, I may learn something that will help other children in middle school in the future.

**DO I HAVE OTHER CHOICES?**

You do not have to be in this study. You can still play intramurals.

**WHAT IF I DO NOT WANT TO BE IN THIS RESEARCH STUDY?**

You do not have to be part of this project. It is up to you. You can even say okay now but change your mind later. All you do is tell me. No one will be mad at you if you change your mind. Choosing not to participate or withdrawing from the study will not affect your PE grade in any way. You can still participate in Intramurals if you choose not to be a part of the project.

**WHAT ABOUT MY CONFIDENTIALITY?**

I will do everything possible to make sure that your data and or records are kept confidential.

Unless required by law, only I can look at your records. I am required to keep your personal information confidential.

**WILL I BE PAID FOR BEING IN THIS RESEARCH STUDY?**

You will not be paid for taking the time to be in this study.

**DO MY PARENTS KNOW ABOUT THIS RESEARCH STUDY?**

This study has been explained to your parent/parents/guardian and they have given permission for you to be in it.

**WHAT IF I HAVE QUESTIONS?**

You can ask Coach Adeimy anything about the study. You may also call the Director in the Office Research Integrity at or 855-251-2351.

**ASSENT**

This study has been explained to me and I am willing to be in it.

_____	_____
Child's Name (printed) and Signature	Date
_____	_____

Check which applies below:

- The child is capable of reading and understanding the assent form and has signed above as documentation of assent to take part in this study.
  
- The child is not capable of reading the assent form, but the information was verbally explained to him/her. The child signed above as documentation of assent to take part in this study.

_____	_____
Signature of Person Obtaining Assent	Date

## APPENDIX E

### PARENTAL INFORMATION LETTER

Version 9/3/2019

Dear Ellerbe, Middle School Parents,

My name is Coach Allen Adeimy. I am the Physical Education Teacher at Ellerbe Middle School, and a graduate student in the Department of Kinesiology at the University of North Carolina at Greensboro. I would like your child/student to take part in my research project, titled “The Effects of an In-School Physical Activity Program on School Improvement”. During the 2019-2020 school year, I will be studying the students who choose to participate in EMS’s Intramural Program to discover the effects that participation in the program has on variables such as attendance, academics, behavior, school connectedness, and fun. If you and your child consent and give permission for your child to participate in the study, I will be gathering data on attendance, academic performance, and behavior. This will be done before and after participation in the Intramural Program. Further, your child will be asked to fill out a survey/questionnaire to identify additional thoughts and feelings that they have about the effects of participating in the Intramural Program. Completion of these surveys is estimated to take no more than twenty to thirty minutes of class time. A smaller selection of students may be asked to participate in an interview with me, giving them the opportunity to describe how they feel about the Intramural Program and how they perceive the program influences other areas of school performance.

All the information I obtain from your child will be kept confidential. Your child’s name will not be used on any of the forms they complete, and no information about your child will ever leave school premises with a name attached. The survey that your child completes will be marked with a number I select but no one who works in the school (other than me) will ever know this number or the responses of your child.

The information collected from this study will be compiled into a report that will be available for everyone to see at the Ellerbe Middle School office, as well as summarized in an article describing the outcomes of the study in the Richmond Observer. The report will not contain any INDIVIDUAL information about children. I will also use the information from this study to publish articles in professional publications, so that other middle school teachers can learn more about intramural programs and their effect on school improvement. Once again, I will never report individual information.

The school principal and the Richmond County Schools Superintendent have approved the research project. However, your child does not have to participate in the study. Participation or non-participation will not affect your child in any way and does not exclude them from participation in the Intramural Program. Choosing not to participate or withdrawing from the study will not affect your child's PE grade in any

way. Again, students who choose not to participate in the research study can still participate in the Intramural Program.

There are no direct benefits to you or your child for participating in this study. The information from the study should help us learn more about the effects the Intramural Program has on school improvement. There are no known risks associated with participation in this study, and most students enjoy the opportunity to express their opinions.

If you have any questions about the study that you are participating in you are encouraged to call Coach Allen Adeimy, the investigator, at (910) 582-7925.

APPENDIX F

PARENTAL CONSENT FORM

Version 9/3/2019

**UNIVERSITY OF NORTH CAROLINA AT GREENSBORO**

**CONSENT FOR A MINOR TO ACT AS A HUMAN PARTICIPANT**

Project Title: The Effects of an In-School Physical Activity Program on School Improvement

Coach Allen Adeimy, Principal Investigator, Dr. Michael Hemphill, UNCG Faculty Advisor

Participant's Name: (Child's name here)

---

**What are some general things you should know about research studies?**

Your child is being asked to take part in a research study. Your child's participation in the study is **voluntary**. You may choose for your child not to join, or you may withdraw your consent for him/her to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to your child for being in the research study. There also may be risks to being in research studies. If you choose for your child not to be in the study or you choose for your child to leave the study before it is done, it will not affect your relationship or your child's relationship with the researcher, Ellerbe Middle School or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about your child being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

**What is the study about?**

This is a research project. Your child's participation in this project is voluntary. The research project will study the effects of participation in Ellerbe Middle School's Intramural Sports programs on variables such as attendance, behavior, grades, school connectedness, and fun.

**Why are you asking my child?**

Your child signed up to participate in Intramurals at Ellerbe Middle School.

**What will you ask my child to do if I agree to let him or her be in the study?**

Your child will be asked to participate in the intramural season(s). They will be asked to complete a questionnaire/survey at the completion of the season to talk about their experience in intramurals. The survey/questionnaire will take approximately fifteen minutes to complete. They may also be chosen to participate in a 15-minute interview with Coach Adeimy to follow up on their survey answers for more information. Not all students will participate in the interviews.

In addition, Coach Adeimy will be collected information on academic performance, behavior, and attendance of each participant prior to and at the completion of each intramural season. For academic performance, grades for all four core courses (English, Math, Science, and Social Studies) will be collected for each participant via PowerSchool, the computer program Ellerbe Middle School uses to report and retain this information on all students. Attendance records, consisting of unexcused absences and tardies will also be collected for each participant. Each participant's behavior record will also be collected, consisting of both major and minor offenses reported to Educators Handbook, the computer program Ellerbe Middle School uses to report and retain this information on all students. Coach Adeimy has access to all this information, as he teaches each student at EMS. All information gathered on study participants will be recorded in code to assure anonymity.

**Is there any audio/video recording of my child?**

No. Coach Adeimy will not record any video or audio of your child during the study.

**What are the dangers to my child?**

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. Any risks are inherent to participation in any physical activity. Coach Adeimy is CPR Certified and is a designated first responder at Ellerbe Middle School.

If you have questions, want more information or have suggestions, please contact Coach Allen Adeimy, who can be reached at (910) 582-7825 AND Dr. Michael Hemphill, who may be reached at (336) 334-4008.

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351.

**Are there any benefits to society as a result of my child taking part in this research?**

This study may provide insights on how physical activity programs can improve student attendance, behavior, and academic performance. This insight may be beneficial to schools and school systems on providing extra-curricular activities that benefit the overall education of students.

**Are there any benefits to *my child* as a result of participation in this research study?**

There are no direct benefits to participants in this study.

**Will my child get paid for being in the study? Will it cost me anything for my kid to be in this study?**

There are no costs to you or payments to you or your child as a result of participation in this study.

**How will my child's information be kept confidential?**

All information obtained in this study is strictly confidential unless disclosure is required by law. All data collected on your child will be coded for confidentiality (no name attached to the data) and stored in a secure locked file cabinet in a locked office and in a secure digital storage tool, BOX.

**Will my child’s de-identified data be used in future studies?**

No. Your child’s data will be destroyed. Your child’s de-identified data will not be stored and will not be used in future research projects.

**What if my child wants to leave the study or I want him/her to leave the study?**

You have the right to refuse to allow your child to participate or to withdraw him or her at any time, without penalty. If your child does withdraw, it will not affect you or your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your child’s participation at any time. This could be because your child has had an unexpected reaction, has failed to follow instructions, or because the entire study has been stopped. Any participant removed from the study for any reason is still eligible to participate in Intramurals at Ellerbe Middle School. Choosing not to allow your child to participate or withdrawing your child from the study will not affect your child's PE grade in any way.

**What about new information/changes in the study?**

If significant new information relating to the study becomes available which may relate to your willingness to allow your child to continue to participate, this information will be provided to you.

**Voluntary Consent by Participant:**

By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study described to you by Coach Allen Adeimy.

\_\_\_\_\_ Date: \_\_\_\_\_

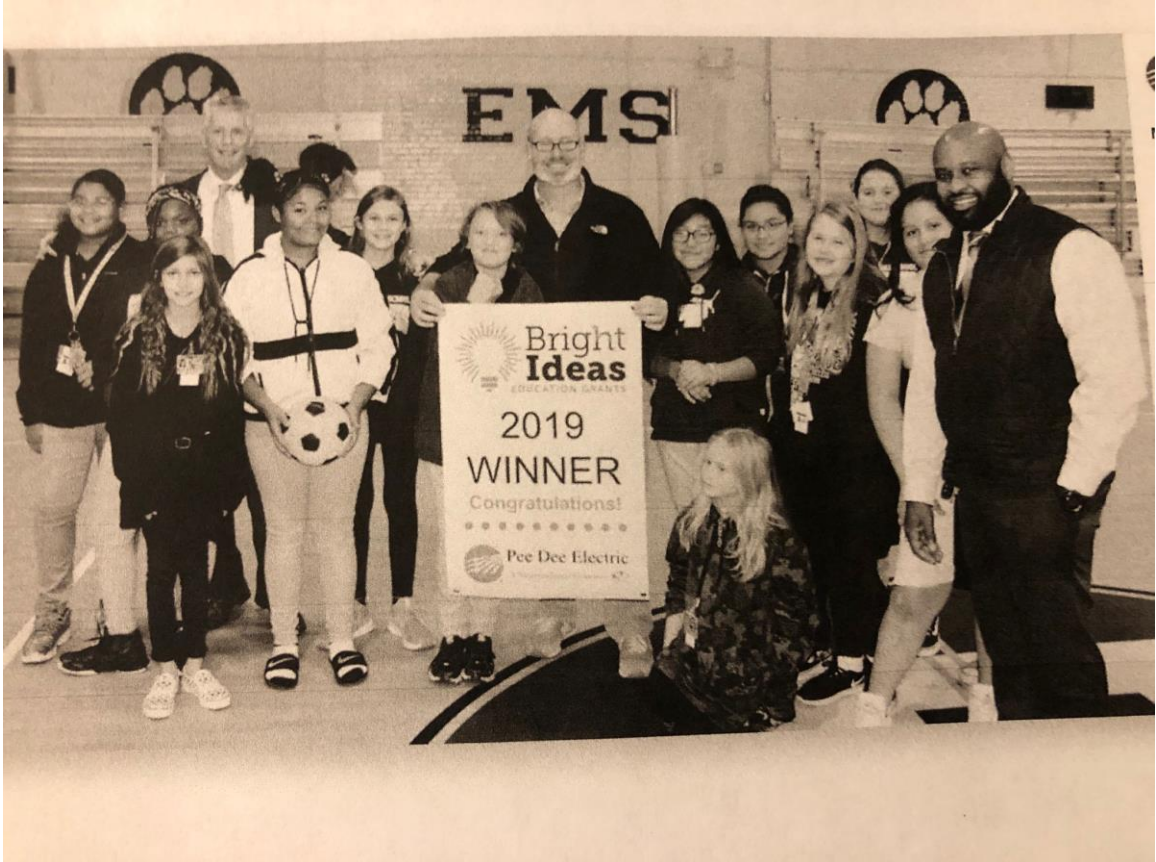
Participant's Parent/Legal Guardian’s Signature



APPENDIX G

GRANT AWARD PHOTOGRAPH

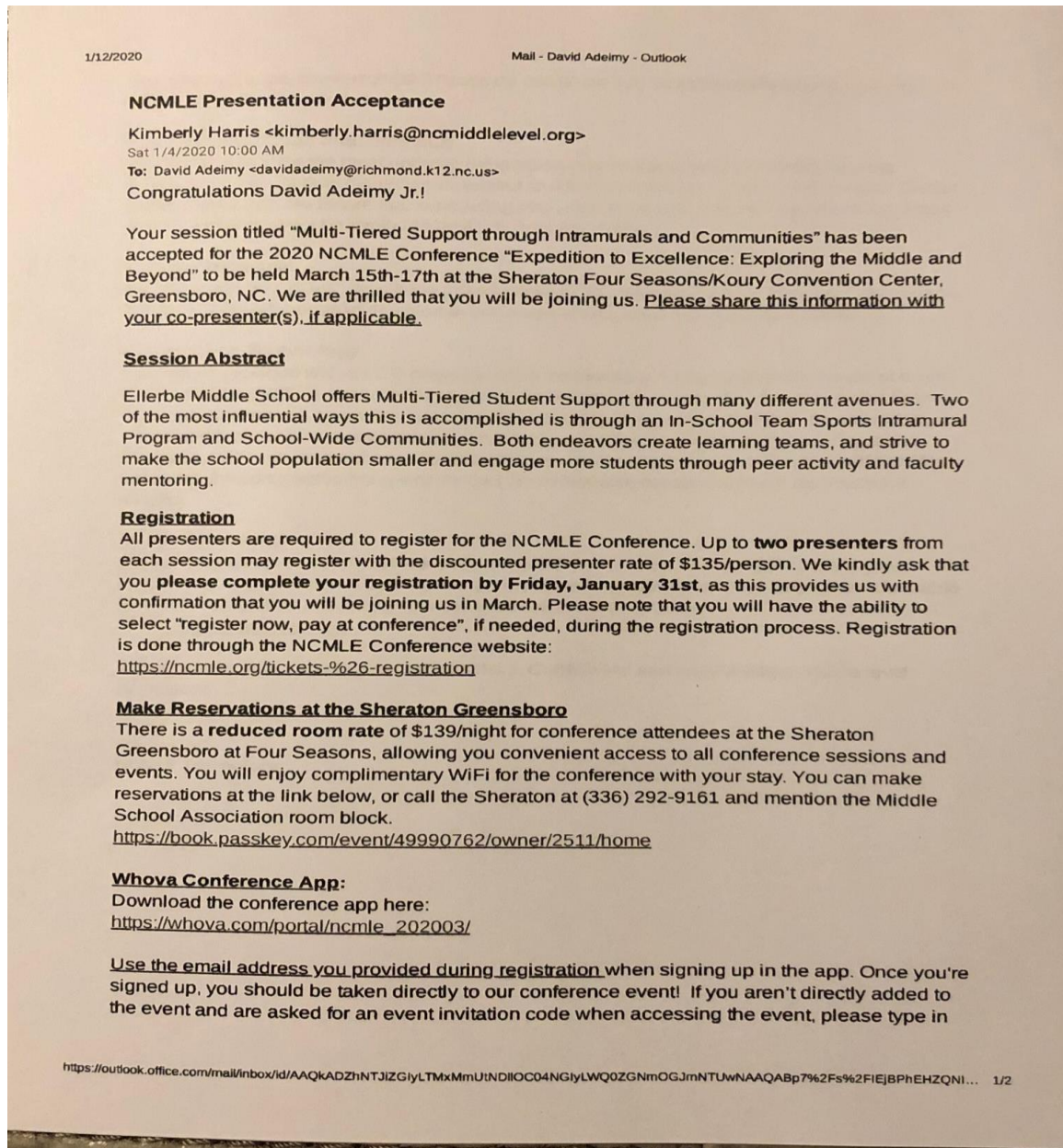
December 2, 2019



## APPENDIX H

### NCMLE CONFERENCE PRESENTATION APPROVAL

1/12/2020



## APPENDIX I

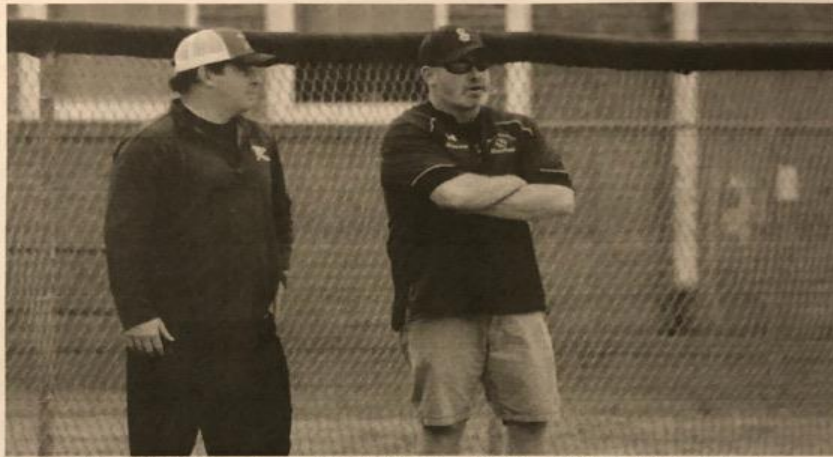
### RICHMOND OBSERVER ARTICLES

9/15/2019

Sunday, 15 September 2019 23:17

## Adeimy to use intramural program at Ellerbe Middle for doctoral dissertation study

Written by Kyle Pillar (/sports/itemlist/user/373-kylepillar.html)



(/media/k2/items/cache/68a3e09e7deee36b65ca4f2f546adc44\_XL.jpg)

Allen Adeimy (right) is beginning his doctoral dissertation at UNC-Greensboro, and will study the impact of intramural sports on student behavior.

*Kyle Pillar – The Richmond Observer.*

**ELLERBE – Even before the first block bell at Ellerbe Middle School rings each morning, dozens of students have broken a sweat and a smile.**

That's thanks to Allen Adeimy's intramural sports program, which gives Wildcat students a chance to compete and build a plethora of life skills every morning throughout the school year. In his eighth year as Ellerbe's physical education teacher and athletic director, Adeimy has used his intramural program the past four years to better the school experience of hundreds of students.

During each nine-week period, students sign up to participate in a variety of intramural seasons. Some of the sports Adeimy, affectionately known as "Coach" around campus, has implemented include basketball, indoor soccer, volleyball, handball and floor hockey, among others.

As the success of the program continues to grow, Adeimy has decided to put it to further use to help not only make Ellerbe a stronger learning environment, but also hopefully make other middle schools across the state better.

Adeimy, who is also the school's baseball coach and assists with all of its athletic programs, is entering his fourth year of the University of North Carolina at Greensboro's Doctorate of Education in Kinesiology online degree program. In his first three years, he's already successfully completed over 40 hours of coursework at the doctoral level and has made the transition from "doctoral student" to "doctoral candidate."

The only thing separating Adeimy from earning the formal title of "Doctor" in front of his name is writing an approved dissertation.

In order to complete his dissertation, Adeimy must complete a research study in his respective field. Following the research process, he's required to submit and present his findings to the Dissertation Committee at UNC-Greensboro. While he's in the beginning stages, Adeimy noted it's a "complex process" that could last between one to five years.

"My research study and dissertation will focus on Ellerbe Middle School's in-school intramural sports program and its effects on school improvement," Adeimy explained. "Each school in the district (and state) is required to develop and submit a 'school improvement plan,' which is designed to address state, district and school mandates, strategies and issues that improve the overall experience and education of North Carolina students.

"This plan is developed by a team of administrators and staff members at each school, and is visited and updated each year to address specific needs and new mandates," he added. "Our intramural program has been running for four years now, and has been used as a strategy to influence improvement in areas at Ellerbe including student attendance and behavior on past school improvement plans."

Adeimy added that although the success and student interest level has led to a "solid program that has experienced great support, participation and has become a staple at the school," no formal research has been conducted to assess whether the program has any legitimate, data-backed success in contributing to improvement in the areas of student attendance, academic performance, fitness and behavior.

Adeimy's research study and dissertation plan on doing just that, using data collection, statistical testing, activity observation and student interviews to discover exactly where and how the program contributes to school improvement.

"The big picture of conducting the study is to continue to develop and improve upon an intramural program, or another activity program, that middle school students can participate in that contributes to the overall improvement of the middle school experience," Adeimy said. "We also want to see these programs contribute to our students' overall success at Ellerbe."

Adeimy's study will be completed during the 2019-2020 school year. Students and parents at Ellerbe will be asked to complete and submit a "consent to participate" form to allow Adeimy to conduct the study during intramurals this year. He noted it's imperative that students and parents give permission to participate in the program and study, as it's a requirement of UNC-Greensboro's Institutional Review Board (IRB).

The IRB "assures proper ethics, methods and storage of information and data within a research study." Adeimy said parents should be on the lookout for the forms, which will be sent home with students explaining the study and purpose with areas for parents and students to sign and return to school.

Adeimy will need the parents and students of Ellerbe to help in completing this study, and asks that parents of students who wish to participate in intramurals to return the forms as soon as possible.

In additional ROSports articles, a full description of the Ellerbe Middle School intramural program will be provided and updates and results of the study will be shared with the community.

*Allen Adeimy contributed to this article.*

Last modified on Monday, 16 September 2019 09:32

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Instagram: ROSports

Thursday, 02 January 2020 23:05

## Adeimy collects data for Ellerbe intramural program, nears completion of doctoral degree

Written by Kyle Pillar (</sports/itemlist/user/373-kylepillar.html>)



([/media/k2/items/cache/7037131636f8a3c0ea72e0165eff2b94\\_XL.jpg](/media/k2/items/cache/7037131636f8a3c0ea72e0165eff2b94_XL.jpg))

Allen Adeimy, shown here during football season, is halfway through this year's dissertation study of Ellerbe Middle School's intramural program.

*Kyle Pillar – Sports Editor*

**ELLERBE – As the new year turns, physical education teacher and coach Allen Adeimy continues his UNC-Greensboro dissertation study concerning Ellerbe Middle School's intramural program.**

As highlighted in an ROSports feature last fall (</sports/item/5958-adeimy-to-use-intramural-program-at-ellerbe-middle-for-doctoral-dissertation-study.html>), Adeimy's early-morning intramural program is studying the positive impacts on overall school improvement and student growth.

Adeimy, who is the school's baseball coach, assists with all of its athletic programs and helps coach the Ellerbe/Cordova football team, is halfway through his fourth year of UNCG's Doctorate of Education in Kinesiology online degree program.

In his first three years, he's already successfully completed over 40 hours of coursework at the doctoral level and has made the transition from "doctoral student" to "doctoral candidate."

The only thing separating Adeimy from earning the formal title of "Doctor" in front of his name is writing an approved dissertation, which he began at the start of the 2019-2020 school year.

The EMS intramural program is a team sports oriented league, which runs during the 20-minute homeroom period each morning. Each "season" lasts the span of the nine-week grading period, and includes both regular season and postseason tournaments.

Adeimy's program offers four different sports options for play, including: volleyball (first nine weeks), basketball, indoor soccer and European team handball during the last quarter of the school year.

Wildcat students sign up at the start of each nine-week grading period, and can play all or any combination of seasons based upon their interest. The intramural program is open to both boys and girls, and all grades are eligible for participation (except sixth grade for volleyball).

"Typically, anywhere from 30 to 50 percent of our students at EMS are participants in any given season of intramurals," Adeimy said. "During the second nine weeks this year, there are 97 students participating in basketball, which is 42 percent of our student body."

Students sign up for the program, which is free for the 2019-2020 school year, during physical education classes. Adeimy creates a master list of boys and girls, and in most seasons, there are two leagues formed, one for boys and one for girls. Students from all three grade levels are mixed together to form the teams.

"One of the main goals for the program is to ensure fairness and fun, and great effort is put into compiling teams that are even," Adeimy, who is in his eighth year at Ellerbe, said. "This is accomplished by taking the master list of students and ranking them on skill level in the particular sport."

Adeimy added this is done anonymously, with only him knowing the rankings and using his observations from gym class to create fair teams. Once the players are ranked, a decision is made as to how many teams will be formed for each league.

Teams generally have between six to eight members. Using the rankings, "teams are formed with meticulous effort to ensure that each team has a fair chance to compete." Once the teams for each league are done, they are assigned a team name (usually a collegiate mascot) and a team jersey color, which they will keep for the entire season.

Teams compete together for one season, and are reshuffled when a new season begins (based on a new master list). Adeimy displays teams in two areas at Ellerbe Middle, and students can see their team members, name, color and regular-season schedule for that season.

The intramural program is implemented using the Sport Education Curriculum Model, one of the more popular ways to carry out physical education experiences.

"This model was developed by Daryl Siedentop in 1984, and puts the responsibility of the experience on the students," Adeimy said. "They not only having the role of being participants, but also act as a coach, a scorekeeper, they set up and break down equipment, and sometimes serve as officials and referees."

Other trademarks of Sport Education are the functioning of teams over time, seasons, a culminating event and recognition and acknowledgment of success, Adeimy continued. Other than the officiating piece, which is overseen by Adeimy and fellow coach Derek Anderson, "the EMS intramural program incorporates most of these Sports Education Foundations."

League champions are recognized at the Awards Day programs at the end of each nine-week period and are given champions T-shirts to be worn at school.

Part of Adeimy's completion of his doctoral degree is to collect and assess data from the intramural program, among other things.

According to Adeimy, as of the start of January, he's collected data on attendance, academics (GPA) and behavior on each intramural participant. Each participant has also completed a survey giving their ideas and reflections of participation in the program.

During the next two months, the data will be analyzed and a conclusion to the study will be developed.

Additionally, Ellerbe Middle School received a Pee Dee Electric Bright Ideas Education Grant for \$1,150 to fund the program. This grant was recently received at a reception at Ella's Ballroom in Rockingham on Dec. 13.

Adeimy, along with EMS faculty members Andria David and Deb Sutherland, will present the final details and effects of the program on school improvement in a session at the North Carolina Association for Middle Level Education Conference in Greensboro in March.

Stay tuned for the final results of the study, which will be released by ROSports in later this spring.

*Allen Adeimy and sports editor Kyle Pillar contributed to this article.*

Last modified on Monday, 06 January 2020 22:59

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Twitter: ROSports\_

Instagram: ROSports



# Adeimy concludes dissertation study, presents intramural findings at UNCG

Written by [Kyle Pillar](#)



**ELLERBE — The recent COVID-19 outbreak and closure of in-person school days put a sudden halt on a local physical education teacher’s dissertation. But it didn’t stop him from finishing what he started.**

Allen Adeimy, who teaches and serves as Ellerbe Middle School’s athletic director, is nearing the end of his doctoral journey at UNC-Greensboro. He is scheduled to defend his dissertation, titled “Effects of an In-School Physical Activity Program on School Improvement” on Tuesday in front of a committee of three faculty members in Greensboro.

After defending, Adeimy will have to make whatever edits recommended by the panel and submit his finished work to the graduate school at UNCG for final approval. This will conclude the process, once the graduate school signs off on the finished dissertation and will grant “Dr.” Adeimy an Ed.D in Kinesiology.

For his dissertation, Adeimy used his longstanding intramural program at Ellerbe to collect data on whether or not the early-morning physical activity benefitted his Wildcat students in a variety of ways.

His original plan was to continue to collect data through most of the spring semester, but the coronavirus limited Adeimy's collection window.

"After using the fall 2019 semester to collect data on Ellerbe's intramural program and program participants, the results of the study are in," Adeimy shared. "Some things went as expected, while other results could be considered somewhat surprising."

As a skeletal structure to his study, intramural game and participant data was taken on students' grades, attendance and behavior for two nine-week periods. The first was the nine-weeks prior to their first participation in intramurals at EMS, and the second was the nine-weeks of their first participation in the intramural program.

One of his focuses was to see if there was a change, hopefully positive, in students' grades, attendance and behavior in the nine-weeks of participation.

Adeimy used a Paired T-Test, a statistical test which looks at change over a specific time period. This test can be completed on known statistical programs like Microsoft Excel and Google Sheets, as well as specific stats programs like SPSS. Adeimy ran the test using Google Sheets.

"The results of the statistical test could not show significant evidence that there was a change, positive or negative, in any of the three variables," Adeimy noted of his findings. "While this could be considered disappointing, as it was the hope that statistics would show improvements, it is not all that surprising."

"There has to be significant change for the test to show strong statistical evidence of change, and looking at the data, it would be difficult to get that result."

Based on his findings from his intramural program, of the over 80 participants, between 60 and 65 percent of them didn't show changes in raw data of more than one or two points on their grade averages, more than one missed school day or more than one plus-or-minus behavior incident.

"What that means is that a large percentage of EMS kids don't miss much school and don't get in trouble often, and that their grades stay fairly consistent throughout the year," Adeimy explained.

What that did leave was around 35 percent of students who did show significant changes in some of the variables. This was spread out between the three

variables, with only one of the students showing significant changes in all three variables.

"It is encouraging to see that this student improved significantly in all three areas during his participation in the program," Adeimy added.

In other situations, some students improved during participation while others saw their variables take a dip.

"One thing that was noted from the statistical results is that kids whose attendance improved saw improvements in their grades at least 80 percent of the time. Could that be related to participation in intramurals? That depends on perspective."

The second part of Adeimy's dissertation study looked at just that, the perspective. Both student perspectives and the researcher's perspective were studied using formal observations (six), student questionnaires (over 80) and daily reflections of intramurals (15).

Adeimy used two approaches to this data, which were inductive and deductive reasoning. Inductive reasoning involves observing a phenomenon and allowing certain ideas and themes to emerge from it, while deductive reasoning involves using pre-thought ideas and themes and looking at a phenomenon to specifically spot those things.

Adeimy's study included both, and Initially, he expected to see teamwork, sportsmanship, conflict, success of play and leadership instances emerge within play. Of these, success of play, leadership, and conflict were most evident, being observed in play over 30 times each.

The most encouraging of these was leadership, where Adeimy noted "several students emerged from nowhere as leaders of their respective teams. They were vocal, encouraging and planned strategies to help their team succeed. Further, these skills were observed outside of intramurals in other areas of the school day."

Upon further analysis of his findings, the soon-to-be Dr. Adeimy said the most telling of all the data were the inductive themes that emerged from the students' perspectives. Students in the intramural program first and foremost like to play intramurals.

In questionnaires, the fact that intramural games were "fun" was noted over 100 times. Further, students noted that intramurals allowed them to be active and get fit, encouraged them to come to school on intramural game days, helped them get their "wiggles" out before heading to class, and made them feel a part of something while at school.

The students also found it important to win, play well and contribute to their team's success. This theme was loud and clear from the student's point of view. It was also noted that students wanted to play more, and for longer increments. Most were satisfied with the types of activities offered and felt like intramurals was an important part of their experience at EMS.

Adeimy said these were very encouraging themes that came from the study.

Armed with this information, it is now up to Adeimy to take his findings to Ellerbe's principal Melvin Ingram and the school improvement team to figure out how to turn the results into data driven improvements within EMS.

Other schools in the county have shown interest in starting programs like the one at EMS, and Adeimy has created a Google folder to help other teachers plan and develop programs of their own.

Adeimy said one of the most important responsibilities of the researcher is to use the new knowledge to make an impact on their respective field.

Adeimy would like to thank Ingram, the EMS teachers and staff, data manager Tan Wall, Superintendent Dr. Jeff Maples and everyone who has supported him within Richmond County Schools with this dissertation study. He also thanks his wife, Deborah Spears-Adeimy, who has been a very supportive and patient wife during this process.

"A big thanks to the Richmond Observer for publishing these articles," he closed. "Getting my work out to the public is a big part of my dissertation, and the RO has made this possible for me."

*Allen Adeimy and sports editor Kyle Pillar contributed to this article*

APPENDIX J

INTRAMURAL AWARDS T-SHIRTS PHOTOGRAPH

10/1/2019



## APPENDIX K

### INTRAMURAL PROGRAM DETAILED DESCRIPTION

The Ellerbe Middle School intramural program is a team sport based physical activity program that operates in seasons, each lasting approximately nine weeks, or one academic quarter. Each quarter offers a new sport season, typically consisting of volleyball for the first quarter, basketball for the second quarter, indoor soccer the third quarter, and European team handball the final quarter of the school year. The program is open to all students, grades sixth-eighth, the exception being the first nine-weeks featuring volleyball. That season is open to current seventh and eighth grade students, with the new sixth grade students not eligible. They become eligible for the intramural program during the second quarter for the sport of basketball. This allows the 6th grade students to adjust to a new school environment and for the Healthful Living teacher to get a better understanding of their overall skill, fitness, and behavior levels.

Recruitment and registration for each season takes place for two weeks prior to the start of the quarter, with students able to sign up with the Healthful Living Teacher during physical education class. There is no cost to participate. T-shirts (See Appendix J) are awarded to the championship teams at the end of the quarter awards program. In most instances, the intramural leagues are split by gender. A season that attract smaller numbers of participants could result in a co-ed league, which happened in the volleyball season of the 2018-2019 school year.

After completion of registration, a master list of all participants is compiled, and players are secretly ranked in order of athletic ability, with one being the highest rated

player down to the lowest ranked player. Then, the total number of possible teams is calculated. Each sport may comprise of different amounts of players per team, although the target number of players is between five and seven. For all sports, excluding basketball, that is an ideal number. The most ideal number for basketball is four players on the court, but teams consist of more than four players and mandatory substitutions are implemented into the games.

Students play for their respective teams for the entirety of the season, which consists of a regular season and postseason seeded single-elimination tournament. New teams are comprised at the change of the season, depending on the new registration list.

A regular season schedule is developed based upon number of available play dates, number of teams in the league, and play dates needed to complete the tournament. Games are scheduled each available morning during the homeroom period, from 7:55-8:14 am. Any disruptions to the normal schedule (testing days, field trips, half-days) are identified at the start of the season. Unforeseen disruptions to the schedule are unpredictable and inevitable, so make-up days are built into the regular season schedule. The duration of the games are 6 to 10 minutes, depending on whether the schedule necessitates two or three games per morning. All games are officiated by the Healthful Living teacher or another coach, and scorekeeping, timekeeping, and set-up/tear-down is done by the students who are playing that morning. Records are kept for the regular season, and at its conclusion the teams are seeded for the postseason tournament. At the culmination of the tournament, champions are crowned and recognized at awards day. Each player on a championship team receives a championship T-shirt, which are based on

school colors and can be worn in-lieu of school uniform shirts during the school day. Records are kept via Google Drive for each season, including all participating players, team, and season records.

An additional note that is important about the program is that, in rare cases, a student can be ruled ineligible for an intramural season for poor (extremely) behavior or academic effort in class. Players must be identified by their classroom teachers before the season begins and have a conference with the Healthful Living teacher about the ineligibility, and a plan devised to allow them to gain eligibility the next quarter. Once the season's teams are made, a player cannot be removed from the program except by the Principal. This assures that no forfeits occur. Teams are usually made a player or two larger than needed to address unforeseen absences for sickness or other reasons, again trying to minimize any chances of forfeits.



## APPENDIX L

### DAILY REFLECTIONS OF INTRAMURALS

10-8-19

Today was Boy's Intramural Volleyball regular season. There were two competitive games, each finishing within a couple of points, which caused the focus and competitiveness to stay the entire time. From the Bears, only 1 player (\_\_\_\_) did not come today. From the Cowboys, two players (\_\_\_\_ and \_\_\_\_\_) did not attend. From the Jayhawks all players attended, and from the Sooners, \_\_\_\_\_ and \_\_\_\_ were absent. The Sooners tend to be fussy if they don't succeed, which was the case today. It was not as bad as it has been, and \_\_\_\_\_ and \_\_\_\_ (not surprisingly) are the main culprits. The other game was very well played and both teams showed good sportsmanship including little \_\_\_\_\_, who tends to be fussy like his brother \_\_\_\_\_.

There were two behavior offenses today that *COULD*, according to the school policy, be reported to Educator's Handbook. The first was the casual use of the "N" word, not in a derogatory way but nevertheless used where I could hear it. The student who used the word had to do 25 push-ups to keep from getting written up (would have been a minor). The other incident was also language related, with a student telling another student to "shut the 'f' up". This student completed 25 sit-ups to avoid being referred (probably a major but could have gone either way) because everyone heard it and it was in a more combative delivery. I also conferenced with that student to discuss his decision on when and where to use the word.

I normally do not write kids up for cussing each other but have them complete exercises and apologize with an understanding that school is not an appropriate place to use profanity.

10-9-19

Today was Girls Intramurals Volleyball Regular season. There were two games this morning, and Coach Anderson refereed the games so I could do a formal observation using the observation tool I created. The tone of the girls today was very laid back, as is the trend most mornings with the girls. They seem a bit sleepy, and somewhat stuck to the floor for the first part of the game. There were two girls who were in slides, which I don't like. Slides are not allowed in PE class but there is no rule in place in Intramurals. There probably won't be as I prefer them to play in slides than to sit out.

Game 1 was the Huskies v Bruins. The Bruins had 100% attendance while two girls were missing from the Huskies. One of those is \_\_\_\_\_, who never shows up. Nothing stood out in this game really, it was within 3 points with neither great or poor play, and a very quiet court to be honest. There was more coaching and encouragement from the two teams waiting to play than there was verbal interaction on the court for this game.

Game 2 was better; the skill level was up and there was a great leadership display from \_\_\_\_\_ on her team. I even pulled her to the side after to praise her leadership during her game. She was a coach on the floor, instructing and putting kids into the correct spots. She was encouraging, constantly giving feedback and setting an example of how to properly play. I was very impressed. I have not seen this side of her before, I can't wait to watch her play again to see if it was a trend or just an occurrence. No behavior issues in either game, just kids wanting to hang around and watch the second game instead of going to homeroom.

#### 10-10-19

Today was Boys Volleyball Regular Season. Attendance and effort were great today. The Hawkeyes were missing \_\_\_\_\_ and \_\_\_\_\_, the Jayhawks were missing \_\_\_\_\_, and that's it. There was very little wrong with today's games. They were close, and kids for the most part played hard. A couple of kids hid within the games, \_\_\_\_\_ and \_\_\_\_\_ for example. They were out there but were mostly bystanders. It would be nice to ask them why. There are clear cut leaders and alphas in the boy's games, and it is interesting to see the others defer to them. Little \_\_\_\_\_ and \_\_\_\_\_ are for sure alphas and can sway the mood of the game either way depending on their mood and choices. They are also very athletic and hit most of the balls. As far as strategy goes, the boys always try to hit the ball over on every hit, no bump set spike mentality at all. No behavior issues at all today.

#### 10-16-19

Today was Boys Volleyball Intramurals. Attendance was pretty good today, as three teams had 7 players and one team had 6. \_\_\_\_\_, (\_\_\_\_\_), \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ were absent. The first game was a complete blowout. The Jayhawks started poorly and never mentally recovered. The boys are always focused on winning, so once the Jayhawks saw they were done their effort fell off. The kids waiting for the second game let them know about getting beat badly also. The second game was closer, with good spirit and effort. \_\_\_\_\_ was fussy today, so much that I pulled him aside to discuss being a better teammate. I enjoyed this game, however, as the kids played hard and were all smiles. No behavior issues today, and I did a formal observation while Coach Anderson called the game. \_\_\_\_\_, although I explain it often, just can't grasp the ceiling rule.

#### 10-18-19

Today was girls Volleyball Intramurals. I had a couple of interesting things that played into today's games. First, this was the first cold morning in the gym. It is ~40 degrees in the gym today which is very different from the hot temps we have had. It influenced effort and movement, especially in the first game. Second, I noticed in the first game that one team had 9 players. That's odd, seeing as I only put 8 at the most on a team. Upon investigation, I found that since \_\_\_\_\_ was hurt, Coach Anderson allowed \_\_\_\_\_ (who did not originally sign up) to play in her place. I've noticed that \_\_\_\_\_ has not been playing, but I knew she was injured. What I failed to notice was that \_\_\_\_\_ has been

playing in her place. It did not affect the outcome however, as the other team won handily. The last issue is that I had the wrong sticker up for Game 2. It was the Sun Devils vs the Utes, and I had the Huskies sticker up instead of the Utes. Luckily, most of the girls on the Utes saw the Master Schedule and knew they were supposed to stay, so we were able to play. Kudos to the girls for looking at the schedule and realizing my error. There were no behavior issues, but there were girls who wanted to hang around after game 1 to watch game two. I always deal with this, so I just send them on to class.

#### 10-21-19

Today was the last day of Boys Regular Season Volleyball. Both games were very good today, great effort and close scores. The attendance was good in both games, and there were no behavior issues that could warrant a writeup. The kids are aware of what is a playoff and a regular season game and calm down a bit when they are losing knowing they still have a chance to make the playoffs. I hear this in their conversation during and waiting on games. The boys get on to each other more than the girls about messing up too.

#### 10-22-19

Today was the last day of Girls Regular Season Volleyball. Note that today was a much warmer day than we have had in the past week or so, already around 70 degrees. I could tell right away as the play in the opening minutes of the first game was already much more spirited than in the colder mornings. The first game was a blowout, and one of the teams was missing a couple of players, who happen to be good players. About halfway through the game, \_\_\_\_\_, who was on the winning team, asked if I would just make the other team concede. Of course, I said no, and that winning the game was not the only reason we play. There were no issues in this game. Game two was a tale of two halves. \_\_\_\_\_ scored 10 points in a row on her serve, with the other team struggling to get anything back over consistently. Finally, once they did win serve back, \_\_\_\_\_ equaled \_\_\_\_\_ scoring 10 points for the other team in a row. She is a big strong player who hits hard. The game remained close throughout, and there were no issues with this either. Again, we had girls wanting to stay and watch the second game and I had to send them on to class.

#### 10-23-19

Today was the first round of the single elimination playoffs for Girls Volleyball. There was a 3-6 game and a 4-5 game. Both games went chalk, but the 3-6 game was very close. It was a cooler morning, so movement was developing. Many times, there is more of a sense of urgency in players when they know it is an elimination game, but not so much today. The girls played well but didn't seem to be excited about winning or too down about losing. Some kids stood out today. \_\_\_\_\_, although she dove for a ball, was less vocal and more reserved today. \_\_\_\_\_ showed some leadership and knowledge of the game and tried to coach her team. She is soft spoken, which she will have to adjust if she wants to be a vocal leader for her team. Also, \_\_\_\_\_, who made the volleyball team, was super passive. I thought her lack of either effort or awareness cost her team.

There was one instance where I could have written a kid up for profanity. \_\_\_\_\_ used the “s” word when she missed a ball. It wasn’t overly loud and not at anyone, so I overlooked it. I also did a formal observation while Coach Anderson refereed today.

#### 11-1-19

After a week-long hiatus from Intramurals, we played today. It was the girls’ volleyball semifinals. It was colder this morning in the gym, and although play didn’t seem to be affected by it, the verbal action was very diminished. The girls were very quiet. There was good play today, long rallies and lots of effort, especially the entire first game and the first half of the second game. \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ played well, with \_\_\_\_\_ and \_\_\_\_\_ emerging as the leaders of their teams. There was a small upset, as the 3 seed eat the 2 seed, but otherwise just a normal day. There was one small incidence of words between players, as \_\_\_\_\_ and \_\_\_\_\_ had words. There was nothing behaviorally that would warrant a write up.

#### 11-4-19

Today were the semifinals for Boys Volleyball. The first game was an upset because there were only three players present from the #1 seed. The three kids played well but could not overcome their opponent. The five seed (out of 6) is on to the finals. In game two, there was another upset, at least on paper. The #6 seeded team outplayed the #2 team in a well-played match. This sets up a 5-6 seed for the boy’s championship, which rarely happens in intramurals. There was one incidence of profanity today, which is something that I could write up.

#### 11-5-19

Today was the Championship Day for both. The 2 seed won the girls and the 5 seed won the boys. The girl’s game was uber competitive and came down to a tie at the end of time. A one-point overtime decided the match. The boy’s game was close, but the winning team pulled away by 3 or 4 at the end. Some homeroom classes stayed and watched the championship which was neat. There were no behavior issues at all today, except \_\_\_\_\_ wanted to stay and help for the second match and could not accept the no answer she received.

## APPENDIX M

### DISSEMINATION INFOGRAPHIC

#### BENEFITS OF INTRAMURAL PARTICIPATION



**ACADEMICS:** Student perceptions indicated that participation in intramurals prepared them to begin their academic day positively by waking them up and allowing them to expend extra energy.



**ATTENDANCE:** In Likert Scale and Semantic Differentiation questions, 65% of students ranked the importance of being present for intramurals at the highest level.



**LEADERSHIP:** In researcher observations of intramurals, students were directly engaged in natural leadership roles 30+ times.



**FUN:** In student surveys, it was noted over 87 times that intramurals were fun.



**PHYSICAL ACTIVITY:** Students mentioned that they love being active in intramurals 92 times in student surveys .



**TEAM COLLABORATION:** In researcher observations, students were engaged in team collaboration 26 times, and students noted the importance of being part of a team 93 times.



**SUCCESS:** Students highlighted successful play over 50 times, while the researcher noted observing student success over 65 times .



**WINNING:** Students want to win their intramural games. It was mentioned 56 times in student surveys. Students enjoy the recognition, the champion t-shirts, and the feeling of accomplishment that goes along with winning.

## APPENDIX N

### DISSEMINATION GOOGLE FOLDER CONTENTS

#### Sample Master List of Teams

##### NBA

Lakers-Freddy, Tykeem, Chris M., Mason, Daniel  
Hornets-Conner U., Dalan, Sincere, Garret, Weldon  
Warriors-Kruz, Sam, Roy, Konner C., Tru  
Rockets-Atarius, Jahlil, Demarion, Brooks, Kevin

##### NCAA

Seminoles-Aiden, Landon, Jason, Rider, Chris R.  
Tar Heels-Charlly, Isaac, Jamell, TJ, Blake  
Blue Devils-Jordan, Gavin, James, Marshall, Conner W.  
Wolfpack-Hunter, Kamran, Jadariun, Jaquavis, Colton  
Deacons-Jonathan, Chris J, JJ, Jaquail, Luke  
Tigers-BB, Koby, Jake, Shawn, Chad, Raheim  
Yellow Jackets-Jayden, Tap, Camden, Ellen, Zackary

##### WNBA

Mystics-Mikayla, Alyssa H., Bre, London, Amaya  
Sparks-Paloma, Yulissa, Diamond, Savanna, Ally M, Neziah  
Storm-Symone, Yaray, Shadea, Zoey, Skylar, Alyssa S.  
Lynx-Jasmine, Genesis, Nakeelah, Emily, Breiry, Delilah  
Liberty-Amber, Karma, Kam, Carson, Alex, Mackenzie  
Aces-Melissa M, Ivey, Cassie, Essence, Natalie, Rhianna  
Mercury-Adena, Maddie, Camila, Selena, Kayleigh, Carla

Sample Team Colors Master List

**NBA**

Lakers-Gold

Hornets-White

Warriors-Light Blue

Rockets-Red

**NCAA**

Seminoles-Black

Tar Heels-Light Blue

Blue Devils-Dark Blue

Wolfpack-Red

Deacons-White

Tigers-Orange

Yellow Jackets-Gold

**WNBA**

Mystics-Pink

Sparks-Lime Green

Storm-Purple

Lynx-Dark Green

Liberty-Dark Blue

Aces-Maroon

Mercury-Orange

Sample Team Roster



Freddy

Ty-Keem

Chris

Mason

Daniel



## Sample Regular Season Round-Robin Schedule

### REGULAR SEASON SCHEDULE

- Nov. 12-Rockets v. Hornets, Lakers v. Warriors  
Nov. 13-Y. Jackets v Wolfpack, Seminoles v T. Heels  
Nov. 14-Tigers v. Deacons, Mystics v. Lynx  
Nov. 15-Sparks v Aces, Storm v. Mercury
- Nov. 18-Hornets v Warriors, Rockets v Lakers  
Nov. 19-Y. Jackets v Seminoles, Tigers v Wolfpack  
Nov. 20-Blue Devils v Tar Heels, Sparks v Mystics  
Nov. 21-Storm v Lynx, Liberty v Aces  
Nov. 22-Rockets v Warriors, Hornets v Lakers
- Nov. 25-Y. Jackets v Tigers, Seminoles v B. Devils  
Nov. 26-Deacons v Tar Heels, Storm v Mystics
- Dec. 2-Liberty v Sparks, Mercury v Aces  
Dec. 3-Lakers v Warriors, Rockets v Hornets  
Dec. 4-Y. Jackets v B. Devils, Deacons v Seminoles  
Dec. 5-NO GAMES TODAY (Field Trip)  
Dec. 6-Wolfpack v Tar Heels, Liberty v Mystics
- Dec. 9-Mercury v Sparks, Aces v Lynx  
Dec. 10-Hornets v Warriors, Rockets v Lakers

Dec. 11-Blue Devils v. Deacons, Tar Heels v Tigers

Dec. 12-Wolfpack v Seminoles, Mercury v Liberty

Dec. 13-Storm v Aces, Lynx v Sparks

Dec. 16-Lakers v Hornets, Warriors v Rockets

Dec. 17-NO GAMES TODAY

Dec. 18-Deacons v Y. Jackets, Wolfpack v B. Devils

Dec. 19-Tigers v Seminoles, Mercury v Mystics

Dec. 20-NO GAMES TODAY

Jan. 6-NO GAMES TODAY

Jan. 7-Liberty v Lynx, Sparks v Storm

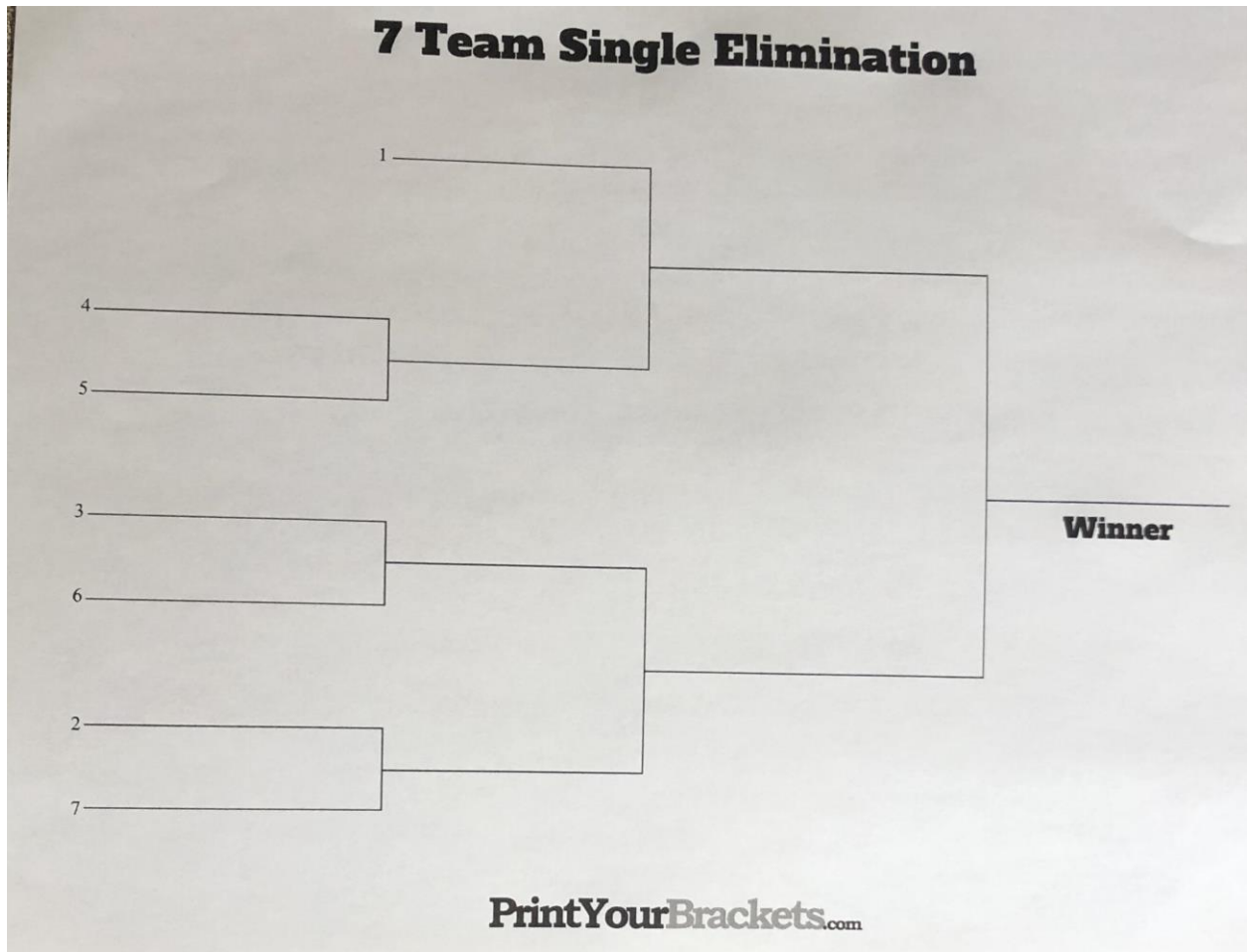
Jan. 8-Rockets v Hornets, Lakers v Warriors

Jan. 9-Tar Heels v Y. Jackets, Deacons v Wolfpack

Jan. 10-Tigers v Blue Devils, Aces v Mystics

Jan. 13-Mercury v Lynx, Liberty v Storm

# Sample Postseason Tournament Bracket



## Instructions for Season and Tournament Generators

1. Go to [printyourbrackets.com](http://printyourbrackets.com)

### Round-Robin

1. Choose Round-Robin Generator
2. Type in Tournament Name- " Girls Basketball Regular Season".
3. Select number of pools (We use 1 pool)
4. Select number of teams
5. Type in team names, numbers, or letters.
6. Choose number of locations (We have 1 location)
7. Select Generate Tournament

### Single Elimination Seeded Tournament

1. Choose Seeded
2. Scroll down, under single elimination select number of teams.
3. Click Printable Version

### Intramural FAQ

1. When do students sign up for intramurals?  
*A-Students sign up for the first quarter of intramurals starting the first day of school in PE class. For the other 3 seasons, students can sign up in PE class 2 weeks prior to the desired start date of the season.*
2. Who is eligible to play intramurals?  
*A-This depends on your school. At EMS, all students are eligible for intramural participation in the LAST 3 seasons of the school year. For the 1st season, only 7th and 8th grade students can participate in intramurals. Before sign-ups for each season, teachers are asked to send a list of students they deem ineligible for intramural participation and why. This could vary from school to school.*
3. Can students become ineligible for intramurals during a season?  
*A-No. Students can only be ruled ineligible at the start of a season. Only the Principal can make a student ineligible DURING a season. This rule is important to minimize forfeits.*
4. What makes a student ineligible for intramurals?  
*A-This varies from school to school, but at EMS it could be minimal academic effort, poor behavior or attitude, habitual attendance issues for intramural games in past seasons, or disruptive behavior or rough play in past seasons.*
5. How are teams formed?  
*A-In most seasons, it should first be decided how many leagues will be offered. Are leagues co-ed? Are they separated by grade level? Skill level? Once this is decided, participants are assigned to their appropriate league. The number of teams is then chosen based upon how many players are on each team. (60 players, 6 players per team, 10-teams). Each league's list of players is then secretly ranked, with 1 being the most skilled player and working down from there. Teams are then formatted by spreading players out based upon their individual ranking.*

*Example: 24 Players/4 Teams (Players listed by name and rank)*

<i>Teams</i>	<b><u>Tigers</u></b>	<b><u>Lions</u></b>	<b><u>Bobcats</u></b>	<b><u>Lynx</u></b>
	<i>John (1)</i>	<i>Joe (2)</i>	<i>Larry (3)</i>	<i>Reece (4)</i>
	<i>Lou (8)</i>	<i>Clarence (7)</i>	<i>Sid (6)</i>	<i>Javon (5)</i>
	<i>Chris (9)</i>	<i>Leroy (10)</i>	<i>Mason (11)</i>	<i>Steven (12)</i>
	<i>Jimmy (16)</i>	<i>Mike (15)</i>	<i>Stacey (14)</i>	<i>Ty (13)</i>
	<i>Jose (17)</i>	<i>Juan (18)</i>	<i>Kalil (19)</i>	<i>Jamel (20)</i>
	<i>Matt (24)</i>	<i>Sam (23)</i>	<i>Jace (22)</i>	<i>Brooks (21)</i>

6. When are intramural games played?  
*A-This varies from school to school. We play intramural games during homeroom. They start at 7:55 am and run until 8:20 am. This time, on full school days, is protected. Any deviations to a morning are discussed BEFORE a season begins. Make-up days are built into the season to accommodate for unforeseen circumstances (ex-snow days). It is important that the time for intramurals is steady and protected by school administration, and that students and teachers expect the students to be in attendance for scheduled games. There can be no exceptions to this rule.*
7. How/Where do you post information about intramurals?  
*A-Intramural information (rosters, schedules, records) are kept in two places. One is a spot in the main hallway and the other is on a board in the gymnasium. Information is printed, laminated, and posted in each spot.*
8. How are winners recognized?  
*A-This varies from school to school. Here, we recognize intramural participants and winners at our end of the 9-week award assembly. Students are also given T-shirts for winning the season tournament. Shirts are made in school colors and change colors for each season. Students can wear these in lieu of school uniform shirts. Lastly, team photos are taken and posted in the main hallway of the school and can be sent to the local newspaper.*
9. How do you pay for intramurals? How are intramurals funded?  
*We have done this in different ways. We have offered intramurals free of charge, and funded equipment and t-shirts with school money, athletic money, sponsorships and grant funding. We have also charged students \$2 a season to play intramurals. This could vary from school to school. Here intramurals cost between \$600-\$900 yearly to offer.*
10. Do students need permission to participate? Sports physicals?  
*A-Students are not required to have permission or physicals to participate in intramurals. Intramurals takes place during the school day and is considered an extension of PE.*
11. How long are intramural seasons?  
*A-Intramural seasons last between 7 and 9 weeks. We play 1-3 games each scheduled morning. Games last between 6-15 minutes.*
12. Can students participate in all seasons? Some?  
*A-Any of these. If they are eligible, they can choose to participate in as many (4) or as few (1) as they wish. Sign-ups are for a season, not yearly.*
13. How do you decide what activities to offer?  
*A-Our program is team-sports based. All activities need to be able to be timed and need to take place in the gym. Activities are chosen based upon available equipment and student interest.*
14. What is the reasoning behind what activities are offered?

15. *A-This is a great question. First, games offered in intramurals are taught first in PE class. Next, it behooves students to offer sports that they could practice before trying out for them as a school sport. This determines the timing of offerings. (volleyball, basketball, soccer). They are all offered before tryouts for that sport. Facilities may dictate offerings as well. Volleyball is offered first partly because the net stays up during the fall sports season for school volleyball practices, so it requires less work taking the net up and down. Student selection and interest often dictate the final offering. You can survey students to see what they would like to see offered.*
16. Do you offer intramurals using a certain model?  
*A-Intramurals are offered using a modified Sport Education Model. This model can be researched for details. This is done to foster student buy-in, ease of implementation, and a sense of school connectedness and ownership for students. Students play different roles in intramurals (player, coach, scorekeeper, facility set-up). They don't officiate games but otherwise do all jobs.*
17. How do you generate schedules?  
*A-I use printyourbrackets.com. Instructions are provided in this document.*
18. How are team names and logos chosen?  
*A-Usually, we use different established leagues (NBA, La Liga, SEC). I often let students decide which league they want by asking around. Logos are copied and pasted from the internet and used to label teams.*
19. Is there anything you've learned from implementing intramurals?  
*A-Most of it has already been shared. One thing is to find someone who can help you run the league. Someone who can help referee games or cover you when you are absent is a great thing to keep the league rolling.*

Contact Information

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## APPENDIX O

### JOURNALING NOTES

#### Initial Notes on Data Analysis

-Looking at the master list of the three pre-thought variables that were t-tested, these things stand out to me about the quantitative data.

-Many of the students, at least 35%-40%, had **no change at all** in variables from before to during. That goes for all three variables, attendance, behavior and grades. What stands out right away is for certain variables, let's say behavior, that many kids don't have any write ups at all in either quarter. Lots of kids don't get into trouble at all, and most don't get into trouble much. The same kids have most majors and minors. There are some kids who have 1 or 2 of either one of the types of write ups but really the bulk of write ups are focused on a small percentage of participants, and it didn't seem like playing intramurals had a big effect on those kids.

-There were exceptions in behavior both ways. 6 students all saw dramatic decreases in behavior problems while in the program 4 students all saw increases in behavior problems. I considered a +3 incidences to be dramatic, although some were bigger than that. Out of 80+ participants, that's 10 kids who had dramatic changes. Everyone else was +2 or less, with many with no issues either way (behavior)

-I was interested in dramatic changes in the other two variables also. Attendance-7 students all saw dramatic decreases in their missed days in the comparison. (-3 or more 10 students all saw dramatic increases in absences (+3). That's 17 out of 80+ who saw some type of dramatic increase/decrease in absences. 2 students saw improvements in both variables, and both need it as they have struggled recently.

-Grades-(+5). 14 students all saw increases in their grades. BB, Candra, Brooks, Diamond, 14 students, saw decreases in their grades. That's 28 out of 80+ that saw dramatic changes in grades. \_\_\_ is the only kid who is on all 3 lists, and he saw improvements in each area. That's what we want. He is the poster child for the argument that intramurals impact kids. But that's 1 out of 80+ who saw improvements in all 3 areas. Is that troubling? Yes, a little.

-Looking at those lists, I see definite relationships. Often time improvement in one of the three variables is related to improvement in another variable. This goes both ways. There are a few kids who are on the + list for one variable and the - for the other, but not much. For the variables, the most dramatic change % was 35% of students in their grades, 50% either way.

-There were several students who improved in 2 areas, which is encouraging. I'm asking myself why I didn't keep attendance on intramural game days vs not game days. Maybe the next study can look at that. (I'm asking myself constantly why I didn't look at this compared to that). My



wife asks me that too in our many discussions of the data. I guess being a novice at this. I can see improving myself at designing studies as I get more experienced.

-The stats don't tell as much of a story as I would have expected. I could pick out maybe 5 kids for a good case study. I'd need their surveys to not be confidential though, and I'd want to follow up with an interview and a member check. I'd consider letting an outside researcher conduct the interviews.

-It was a massive effort to get all this data. Everyone's initial quarter was different, so we had to look at the past 8-11 quarters to get this info. I could have not done it without the help of the data manager.

-I am both surprised and not surprised at the data. There are all kinds of reasons kids do well and don't do well. I knew I'd have to dig deeper into the why's (thoughts of researcher and students) to get more of a picture of the influence of the program.

-The formal observations were done because Coach Anderson helped me by calling the games. All the variables I looked for I decided before the sets of observations. I took as many notes as I could to catch things I didn't consider and to try to get a deeper understanding of why I tallied the variables observed. I'm certainly glad I did. I really saw a couple of students rise as leaders in the games and this was not expected. They were not kids I saw as leaders. I see it now though not only in intramurals but elsewhere also.

-It is interesting how I noted effort and competitiveness in my notes. Both in formal and daily. Looking back, that is very important to me. I design the program and teams to be competitive. Looking at my notes it seems to be working, as I noted very few blowouts. Many students are impulsive and not mentally tough. They quit when things get hard. That's harsh but they do. That's why many smart kids don't do well on standardized tests. The longer the test, the worse they do. They don't stick with it. Winning and losing are the same. Everyone plays hard when they are winning. Not everyone keeps the intensity when they are losing, especially bad. They quit. That ruins intramurals. A lack of effort ruins it. So, it's important to have competitive games. That has a lot to do with planning and designing teams.

-I thought there would be more times where students had conflict or showed sportsmanship. It just didn't manifest that way. Very few times where they had issues with each other and very few times where they showed sportsmanship to their opponents. Maybe because it was volleyball, and teams are restricted to their own sides. You can't really help a player on the other team up if you're not knocking them down.

-There is an absolute correlation between success of play and effort. Kids like to play well. They talked about it in their surveys. They want to play well, and when they make a good play, they like it. It came up repeatedly.

-Most, if not all conflict was between teammates and not opponents, and normally it was because someone did not make a good play. 80% or more. Middle schoolers can be rough on

each other. Especially because they want to win, and a bad play makes them not win. This is an area I will have to address in PE class. I see kids shut down when they get fussed at. Or they are embarrassed. It kills morale and effort for sure.

-Middle school kids cuss, a lot. I know this already. This intramural season just confirmed it.

-Sports requires kids to communicate. Good and bad. I think this is a big benefit of the program. They must talk to each other, and all teammates are not all friends. So, they communicate with kids they normally don't talk to. This is a big win for what we are doing. We are making the school smaller and allowing kids to connect to each other throughout grades and above what they normally would do.

-There were SO many themes that emerged from student perspectives. They think differently than I do, at least before the study. What is important to them is localized to the game they are playing. They don't always make the connection from intramurals to overall school performance. Some do, especially in the area of academics and how playing first helps them be more settled. That is a biggie. They feel better, more focused, and more settled in the first block. At least that's what they say. How do we get that thought to show up statistically? Maybe look at first core grades only in times of participation and not? Maybe...

-I knew students like winning. They talk about it. Not only in intramurals but in PE and after sports games. You can see the pride when we have winning sports seasons. Students always ask athletes if they won yesterday. They give it to each other in PE over winning and losing. I try like crazy to highlight the other benefits to participating and getting activity in, but they just talk about who won, who scored, who's the best. It's funny. It showed up on their surveys too. They care about winning, and about helping their team win. They like getting that shirt and wearing it. They wear them all the time. We must do more to highlight participants and winners.

-Students see that activity is good. They like to play sports, and they make the connection that playing sports is good for them. They want to play more and embrace every extra chance they get to play something. Even kids who don't like PE like what they like and will play something if given the chance. 90 times it was mentioned. That is big.

-Intramurals are fun. The kids told us resoundingly on their surveys. They like to play, and they don't like missing days when they have games. In casual conversation you can see that they are disappointed if they miss a game day. Their teammates remind them of it too.

-So how do the numbers match the prospective data? What relationships are there? What matters out of all this data. The fact that students think intramurals is fun, it prepares them for class, they like to win and do well, and they don't want to miss games is important. That could lead to improvements in grades and attendance. In some cases, it does, others it doesn't. The question is how to take these strong perceptions and use them to improve their performance in school. This will be the focus of dissemination and the meetings with stakeholders. From the researcher's perspectives, seeing leaders emerge and knowing that students are connected to

their teams and the expansion of the school community is big. This could guide planning to exploit these factors in a way that leads to school improvement. The question is how exactly?

APPENDIX P  
DESCRIPTION OF SETTINGS

# Ellerbe Middle

**Public 6-8**

128 W Ballard Street  
Ellerbe, NC 28338

(910) 582-7925

**District:** [Richmond County Schools](#)

**Student/teacher ratio:** 14.5

**Number of students:** 233

**Racial breakdown:**

White:  
35.2%

Hispanic:  
30.5%

African American:  
35%

Free/discounted lunch recipients: 98.7%

APPENDIX Q

SIT RESEARCHER REPORT



School Improvement Input from Intramural Program Study

**Goal 1: By the end of the 2019-2020 school year, EMS will increase the school performance composite score from 56% to 66% based on Reading, Mathematics, Science Assessments and English Learner Progress.**

*Category: Academic Performance*

*Definitions: School Performance Composite Score-Each district school gets a grade for the year. 80% of the grade comes from achievement (reading, math and science EOG scores) and 20% comes from growth. Equation:  $.80$  (numerator/denominator of proficient scores +  $.20$  (growth index) = performance composite score.*

*Statistics from Study: Overall, statistical data could not show significant change (+-) in Academic Performance.*

			
	<u>Number of Participants (N)</u>	<u>Core Grade Averages up</u>	<u>Core Grade Averages Down</u>
<b><u>Totals</u></b>	<b>85</b>	<b>34</b>	<b>46</b>
<b><u>%</u></b>		<b>40%</b>	<b>54%</b>

Notes:

- 32% of participants saw *significant (5 or more points)* changes in their overall core grade average during their first participation in intramurals.
- The split of significant change was 45% positive and 55% negative in average core grades
- The following students saw significant growth in core grade average: \*Omitted for dissertation
- The following students saw a significant drop in core grade average: \*Omitted for Dissertation

-We have the ability and data available to track participants over longer periods of time with academics and intramural participation.

*Qualitative Data related to Goal 1:*

-In Likert Scale question #5, “I do not do well in class after participating in intramurals”, where choices were 1-Strongly Agree, 2-Agree, 3-Neither Agree or Disagree, 4-Disagree, 5-Strongly Disagree, the mean response score was 4.14. This falls strongly into the Disagree choice. This indicates that students do not perceive participation to be a detriment to their performance in class.



-In open-ended student responses, students indicated 90 times that participating in intramurals helped them to get prepared for their first block class. This was the third strongest theme that emerged from the study data on student perception.

**Goal 2: By the end of the 2019-2020 school year, all sub-groups at Ellerbe Middle School will be recognized as having met or exceeded expected growth.**

*Category:* Academic Performance

*Definitions:* Sub-Groups-Students from Major Racial Groups, students with disabilities (EC), and English Language Learners.

*Statistics from Study:* Overall, statistical data could not show significant change (+-) in Academic Performance

					
<u>Sub-Group</u>	<u>Number of Participants (N)</u>	<u>AP up</u>	<u>Up %</u>	<u>AP dn</u>	<u>Down %</u>
White (W)	31	11	35%	18	58%
African American (B)	24	10	41%	12	50%
Hispanic (H)	22	10	45%	11	50%
Mix	6	2	33%	4	67%
American Indian (AI)	1			1	100%
Asian American	1	1	100%		
<b><u>Totals</u></b>	<b>85</b>	<b>34</b>		<b>46</b>	
Students with Disabilities (EC)	8	6	75%	2	25%
English Learners (ELL)	5	3	60%	2	40%

Notes:

-Intramural participation had the highest percentage of positive grade change in the EC, ELL, Hispanic and African American population.

-3 of 13 students showing significant growth were African American, 5 of 13 were Hispanic, 3 of 13 were white, 1 of 13 was mixed-race, 1 of 13 was Asian American.

*Qualitative Data related to Goal 2:*

-See goal #1



**Goal 3: By the end of the 2019-2020 school year, Ellerbe Middle School will decrease out of school suspensions from 350 days to 210 days.**

*Category:* Behavior

*Definitions:* None

*Statistics from Study:* Overall, statistical data could not show significant change (+-) in Major Behavior Incidents\*

\*-Major Behavior Incidences were those incidents referred to Mr. Ingram in Educator's Handbook.

			
<u>Sub-Group</u>	<u>Number of Participants (N)</u>	<u>Behavior up</u>	<u>Behavior down</u>
White (W)	31	4	6
African American (B)	24	3	10
Hispanic (H)	22	5	2
Mix	6	3	1
American Indian (AI)	1	-	-
Asian American	1	1	-
<b><u>Totals</u></b>	<b>85</b>	<b>16</b>	<b>19</b>
<b><u>%</u></b>		<b>18%</b>	<b>22%</b>
Students with Disabilities (EC)	8	1	2
English Learners (ELL)	5	-	-

Notes:

- 60% of students had no change in behavior at all, and the majority had no major behavior incidences in either grading period.
- African American students saw the largest improvement in behavior during participation (41%).

*Qualitative Data related to Goal 3:*



- On open ended questions, students did not show strong perceptions between participation and its influence on their behavior (17 mentions).
- Of those, most stated that they wanted to behave so they are not ineligible for intramurals.

**Goal 4: By the end of the 2019-2020 school year, Ellerbe Middle School will decrease the number of students missing 10 or more days from 40 students to 30 students.**

*Category: Attendance*

*Definitions: None*

*Statistics from Study: Overall, statistical data could not show significant change (+-) in Absences.*

			
<u>Sub-Group</u>	<u>Number of Participants (N)</u>	<u>At up</u>	<u>At dn</u>
White (W)	31	18	6
African American (B)	24	7	13
Hispanic (H)	22	7	9
Mix	6	1	5
American Indian (AI)	1		
Asian American	1	1	
<b><u>Totals</u></b>	<b>85</b>	<b>34</b>	<b>33</b>
Students with Disabilities (EC)	8	2	2
English Learners (ELL)	5	2	2



### Notes:

- The white population saw negative trends in attendance during participation. 58% saw an increase in absences
- The African American/Mixed Race Population saw positive trends in attendance during participation. 54% (AA) and 83% (MR) saw improvements in their attendance.

### *Qualitative Data related to Goal 4:*

- In Semantic Differential Questions, students viewed intramurals as important. 1 is the strongest perception of the scale, working down toward 5. The mean score for the important/not important was 1.51, halfway between the two strongest scores for importance.
- In Likert Scale questions, Question 1, 2, and 7 relate to attendance and the importance of being at school for Intramural Games. The mean score for #1 was 1.31-Strongly Agree, 1.66-Agree, 1.70-Agree. These support student perception that being at school for intramurals is important to them.

### Interventions including Intramurals

1. A4.01- The school implements a tiered instructional system that allows teachers to deliver evidence-based instruction aligned with the individual needs of students across all tiers.

**When Fully Met-** When fully met, faculty and staff will align our intervention, enrichment, and core instruction seamlessly with student data. Our scheduling and planning of student services will reflect the alignment with student instructional needs. We will experience growth across various student demographic categories. Our grade level, vertical, and content teams utilize data along with the Multi-Tiered System of Supports to personalize learning for students.

**How Intramurals Apply-**Based upon collected data, we can see who is benefitting in each variable due to intramural participation. Using that data, we can update the recruitment process of intramurals, as well as change the factors that may determine the eligibility to participate in the program each 9 weeks. Further, we know that intramurals are a strong enrichment we can offer students. Lastly, we may alter the scheduling of the intramural program to allow other intervention or enrichment programs to function while continuing the offering of intramurals. We also have data on various student demographic categories to further guide us to the most effective use of the Intramural Program.

2. A4.04-The school promotes social/emotional competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.

**3. When Fully Met-** At full implementation, social and emotional learning instruction as well as academic advisement will take place during a weekly advisory period. Students will receive structured and consistent intervention during these periods as they remain with an advisor through sixth through eighth grade.

**How Intramurals Apply-The “When Fully Met” narrative for this intervention is understated and incomplete. While advisement is a good idea (we’ve yet to implement it successfully), it is just one of many ideas that we can use to support socio-emotional learning. Intramurals is a fine example of rituals and routines at EMS, and it meets the description 100% as far as student competitions. We have hallway wall displays, have a consistent addition to awards assemblies, and make the school smaller by long-standing team membership.**

4. A4.06- ALL teachers are attentive to students' emotional states, guide students in managing their emotions, and arrange for supports and interventions when necessary.

**When Fully Met-** The implementation of a Multi-Tiered System of Supports integrating PBIS (Positive Behavior Intervention & Support) and Academic Intervention/Enrichment will provide a specific rubric for academic and behavioral expectations for students. By implementing this uniform program, problematic or concerning behaviors will be easier to identify and there will be a system in place to positively support the improvement of the students.

**How Intramurals Apply-The Intramural Program can be used as support and intervention for students throughout the population and school year. We could establish baseline expectations in the areas of attendance, academic performance, and behavior to determine eligibility. Further, we could include intramural participation on IEPs and other more informal plans and agreements that we make with students. Further, these baselines and expectations can be tailored to specific students based upon already collected data.**

5. A4.11- The school provides all students extended learning opportunities (e.g., summer bridge programs, after-school and supplemental educational services, Saturday academies, enrichment programs).

**When Fully Met-**At full implementation, we will implement a range of extra-curricular experiences occurring before, after, and during the summer such as summer reading list/Accelerated Reading, STEM experiences, as well as tutoring services for our students.

**How Intramurals Apply-Intramurals is a perfect extra-curricular activity. Now that the gym has been given AC, we could offer programs related to intramurals in the summer as both enrichment and fundraisers for athletics and other school programs. Further, we could offer other activity opportunities as enrichment for meeting certain goals within the school day. You could attach these opportunities to**

**students completing or participating in the other programs like AR, tutoring, summer reading or whatever programs we create.**

6. A4.21- The school selects, implements, and evaluates evidenced-based programs that enhance social/emotional competency.

**When Fully Met-** At full implementation, we will be able to effectively prepare for and address student issues through our social emotional learning programs as evidenced by our attendance, behavior, academic data.

**How Intramurals Apply-**We have one set of data from the dissertation study that provides statistical information on all three of the listed variables as well as over 80 student surveys which enlighten us as to how intramurals affects students in the social/emotional areas. This data is priceless and gives us a solid foundation to work from. With the use of PowerSchool and Educator's Handbook we have access to the data related to these variables to study over various time periods, individual and groups of students and variable relationships.

7. C2.01- The LEA/School regularly looks at school performance data and aggregated classroom observation data and uses that data to make decisions about school improvement and professional development.

**When Fully Met-** At full implementation, we will use technology to document our efforts to regularly look at school performance data with the inclusion of aggregated classroom observation data via classroom walk-throughs and use this data to make decisions about school improvement and professional development needs.

**How Intramurals Apply-**Intramurals provides more data on student performance, even if just in the sense that the process of collecting data related to program participants allows us to really look into data and organize it into something that can be used. It has already been shown that it influences decisions based around school improvement and could guide professional development for our own faculty or for district faculty if it is consistent in showing benefits to schools and students.