MCGILL, MITCHELL B. Ed.D. Differences in High School Physical Education: A Case Study in Knox County Schools. (2022)
Directed by Dr. Michael Hemphill. 90 pp.

Learning to teach is a personal experience, which develops long before entering teacher preparation programs (Groundwater-Smith et al., 2007). Physical education teachers usually come to the profession having been relatively successful movers in sport and physical activity during their formative years (Dodds et al., 1992). Over the years, occupational socialization theory (OST) has provided a popular framing for attempting to understand the nature of learning to teach physical education (Richards et al., 2013; Templin \& Schemp, 1989). The purpose of this research was to examine the different perspectives of high school physical education teachers within one school system.

Using a qualitative research design and case study approach, this study collected data from open-ended questions in two semi-structured interviews with sixteen high school physical education teachers in one school district in the southeast. Teacher representation consisted of eight teachers from high poverty (HP) schools and eight teachers from low poverty (LP) schools. The results of the study highlighted key similarities and differences in the perspectives of PE teachers from high and low poverty schools. Through two rounds of semi-structured interviews, the teachers' comments helped shape the narrative of teaching in schools with different resources and income levels. Four themes arose from the candid interviews: Characteristics of High School Physical Education Classes, Perspectives of Quality PE, Facilitators, and Barriers. The findings from this study help show the differences in teaching PE at either an HP or LP school and also support similarities between all high school PE teachers in the same school district. Further investigation may help stakeholders, including administrators at the county and building levels, to support high school physical education teachers in the future.

# DIFFERENCES IN HIGH SCHOOL PHYSICAL EDUCATION: A CASE STUDY IN KNOX COUNTY SCHOOLS 

by<br>Mitchell B. McGill<br>A Dissertation<br>Submitted to<br>the Faculty of The Graduate School at<br>The University of North Carolina at Greensboro<br>in Partial Fulfillment<br>of the Requirements for the Degree<br>Doctor of Education

Greensboro

2022

## Approved by

Dr. Michael Hemphill
Committee Chair

## DEDICATION

The completion of this study is dedicated to my loving wife, Ellen, and son, Jackson. My wife has been supportive, with the sacrifice of long nights of reading, studying, and writing while she helped take care of Jackson. For every weekend that I had to write, re-write, analyze data, this work is dedicated to you. Last, I want to dedicate this project to my parents, David and Terry McGill, for always pushing me to keep pursuing my education. Their work ethic was modeled, observed, and served as the cornerstone of my own persistence.

## APPROVAL PAGE

This dissertation written by Mitchell B. McGill has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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March 31, 2022
Date of Final Oral Examination

## ACKNOWLEDGEMENTS

I want to thank Dr. Nick Cutforth and Dr. Elaine Belansky from the University of Denver for their encouragement, mentorship, and investment in me. Dr. Nicole Smith from Fresno State University also was a huge encourager for me to pursue this degree. My advisor from UNCG, Dr. Michael Hemphill, went above and beyond to help guide me along in the process. Also, committee members Dr. Ben Dyson and Dr. Bill Karper have provided further much needed guidance, perspectives, and direction in finishing the project. If it wasn't for my committee's patience and encouragement, I may not have finished this study.

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## CHAPTER I: PROJECT OVERVIEW

In the state of Tennessee, there are socioeconomic differences in the public schools, and this has led researchers to explore many issues within equity and opportunity for their students (Arroyo \& Rhoad, 1999; Crow, 2010). This encompasses not only the broader range of the entire school experience but also directly at physical activity and physical education. Regionally, a study discovered known disparities in the quality of physical activity opportunities and school physical education programs based on socioeconomics (Edwards et al., 2013). The more economically disadvantaged a school was had a strong correlation to the number or lack of opportunities for its students to be active. Low-income and rural students in Tennessee may not have access to the internet, computers at home, or other resources compared to their wealthier peers (Abernathy, 2020). A lack of opportunity also extends to the physical activity choices, especially with access to travel and youth sports.

On a national level, students who attend high-poverty schools often have different experiences than students at low-poverty schools. Many students may have different life experiences than their teachers can understand, especially if the teachers did not grow up in poverty. Some students will come to school in new, designer clothes, but they are on free and reduced lunch (Stewman, 2014). Just because a student appears to be stable on the outward expression doesn't mean that all is well at home. Furthermore, one of the greatest challenges for students living in poverty is the lack of resources and accessibility to supplementary items that a public education requires. For families living in high poverty circumstances, and usually paycheck to paycheck, any little expense can be a financial crisis (Gorski, 2007).

At the school level, which includes physical education classes, students can have different experiences depending on socioeconomics. For many students in disadvantaged schools, they are often in large classes with limited resources (Sliwa et al., 2017). Statistically, there is a higher turnover rate for teachers in high-poverty schools and many disruptions to the
learning environment including disciplinary issues, absenteeism, tardiness, and a lack of experienced educators (Spenner et al., 2004). On the other end of the spectrum, low-poverty schools often have lower student to teacher ratios and have sufficient equipment for all students (Owens, 2018). Parents with resources can afford to buy their students supplemental items including fitness watches, additional athletic equipment, specialized shoes and clothes just for class. Again, this can be a financial burden for parents that are struggling financially.

Tennessee state PE standards fall under five categories: 1.) Motor Skills, 2.) Cognitive Concepts, 3.) Fitness \& Physical Activity, 4.) Personal \& Social Responsibility, and 5.) Values Physical Activity (Tennessee Department of Education, 2020b). Each standard has subcomponents with further descriptions of learning objectives. The complete standards with subcomponents can be found in Appendix H. Quality instruction addresses each standard offering numerous opportunities for students to be physically active. Presently, there have been limited investigations as to how high-poverty schools teach quality high school physical education. However, one study found that the curriculum taught might mesh culturally with the school (Ennis et al., 1999). In the Sport for Peace Curriculum, the findings suggested that teaching responsibility, fairness, and respect helped foster a sense of family that helped with participation and engagement in schools with a larger population of economically disadvantaged students (Ennis et al., 1999). Yet, further investigation is needed to help bridge the gap between the low and high poverty schools, sometimes in the same school district. The quality of an education should not be contingent upon where students live. According to the U.S Department of Education, Title I was created to ensure economically disadvantaged students receive a fair, equitable, and high-quality education just as their non-disadvantaged peers. The goal is to supplement traditional state and federal funding in order to help close achievement gaps (U.S. Department of Education, 2018). Disadvantaged students in Title I schools should be afforded similar experiences, opportunities, and curriculum as their wealthier peers. There is a critical
need to understand how high school physical education teachers plan, teach, and interact with their classes.

The long-term research goal is to close the gap between high and low-poverty schools' high school physical education classes. As a part of my ongoing research agenda, I want to eliminate the differences in the quality of physical education classes based solely on the wealth of the student population. The objective in this proposal is to examine high school PE teachers' perspectives of quality instruction. The results from the qualitative interviews in both high and low-poverty schools will give the researcher further information on what is taught, why it was chosen, and how the teachers presented the material to the students. Understanding this information will give county-wide physical education directors valuable teachers' perspectives to help level the playing field for students at economically disadvantaged schools or high poverty for this study. As a veteran physical educator and former PE instructional coach for the Healthy Eaters Lifelong Movers Project and Southeastern Colorado PE Academy, I have credible experience working in both low and high poverty schools (Smith et al., 2020). My rationale for the project is to ensure that every student receives a quality physical education experience, no matter if they attend a high or low poverty school.

Knox County Schools is located in East Tennessee and is the $3^{\text {rd }}$ largest school district in the state. The Knoxville metropolitan area is the $3^{\text {rd }}$ largest in Tennessee with a population nearing 870,000 (U.S. Census Bureau, 2021). Over 88 schools are located within the Knoxville City and County limits. Residing in the same city as the state's flagship institution, the University of Tennessee Knoxville, there is a direct pipeline of future educators from the area. Although KCS was separated into Knoxville City and Knoxville County Schools until the 1987-1988 school year, the merger increased the size of the district to one of the largest in the state of Tennessee (Shepard, 2002). KCS has a relatively low level of economically disadvantaged students with only $26 \%$ compared to the state average of $46.7 \%$ (Tennessee Department of Education, 2020a).

Upon completion of this project, I expected to discover crucial data to understand the differences in low and high poverty physical education programs in Knox County, Tennessee. The rich qualitative data from the interviews with high school physical education teachers could help physical education teacher education (PETE) administrators prepare future teachers to acknowledge and tackle the realities of teaching in either school. Improving physical education starts with one teacher at a time, but PETE faculty and county-wide administration must first learn the realities of instruction in each school before helping mold the next wave of physical educators.

## Relevant Literature

## Introduction

As education has expanded to include a growing number of charter schools, private, online, and other agencies, there has never been a more appropriate time to support public education, especially in disadvantaged communities (McFarland et al., 2019). Each school faces their own unique challenges daily, but there is evidence that high poverty schools may be lagging further behind with the overall depth and breadth of instruction in their classes (Sheridan \& McLaughlin, 2016). High school physical education is especially important as it may be the last organized physical activity that students receive before graduating into young adulthood (Duncan et. al, 2007). In the situation of students living in low-resourced communities with few opportunities for physical activity outside of school, inadequate PE contributes to disparities by socioeconomic status (Gill et al., 2016). There is a critical need to further examine high school physical education classes in low and high poverty schools. I will test my central hypothesis, which is that there are indeed instructional, cultural, and teachers' perspective differences in high school PE classes. I will obtain data from the interviews with participants that will tell the story of the differences. The rationale for this study is that high school PE instruction will be dissected, explored, and then used to increase the overall quality at both low and high poverty
schools. At the completion of the project, I expect to have established themes of instruction at both schools and relevant data on the activity levels, lesson contexts, and teacher/student behaviors within a lesson at both classifications of school. This study will have a positive impact on high school PE in eastern Tennessee as it will increase awareness of quality instructional practices in low and high poverty schools.

## Background

## Quality PE

The ultimate goal of a quality PE program is to develop physical literacy, skill competencies, knowledge, demonstrate health-enhancing and social behaviors, and recognize the value of lifetime physical activity (Nye \& Williams, 2017). A well-designed or quality PE program is inclusive, active, and enjoyable for the students and teachers (Sliwa et. al, 2017). Further criteria for a high-quality physical education program are as follows: Physical education provides an opportunity to help students meet the recommendation of 60 minutes of moderate to vigorous physical activity (MVPA) a day. A high-quality PE teacher encourages skill development, knowledge of activities, and enhances students' confidence levels to be physically active for a lifetime (SHAPE America, 2014). The PE teacher uses instructional practices and deliberate tasks to support the goals defined in the curriculum (SHAPE America, 2015). The PE teacher evaluates student learning continually and uses strategies to engage students in MVPA for at least 50\% of class time (SHAPE America, 2015). Next, the PE teacher provides a meaningful yet challenging curriculum while assessing the students. Last, the PE teacher must teach toward the SHAPE America National Standards for K-12 Physical Education while engaging students in social and emotional learning (SEL) containing the following components:

1. Self-awareness, 2. Self-management, 3. Social awareness, 4. Relationship Skills, and 5. Responsible decision-making skills (SHAPE America, 2021).

## MVPA

Regular participation in physical activity supports healthy growth and development, and habitual MVPA has been shown to benefit musculoskeletal and cardiovascular health of children and adolescents (Strong et al., 2005). Yet, one problem in traditional PE classes is the lack of activity, not meeting the recommendations of $50 \%$ or more of the time students are in MVPA (Centers for Disease Control and Prevention [CDC], 2010). In one meta-analysis of 15 studies, it was estimated that high school students only spent $35.9 \%$ of class time in MVPA (Hollis et al., 2017). While meeting the $50 \%$ MVPA target is only one aspect of measuring the quality of PE lessons, the activity levels of students is critical in measuring class engagement (Hollis et al., 2017). With students not meeting national recommendations, there is concern that students are not being offered adequate motor skill development opportunities (Dyson, 2014). Thirty-one years ago, Metzler (1989) discovered that students spent minimal time in motor appropriate activities. That evidence supports the concept of non-teaching, where physical education specialists throw out the balls and let students have free play. With this lack of teaching practice, little to no progression for skill learning occurs (Locke, 1977). Skill practice, increased movement, and knowledge of healthy lifestyles are just some of the indicators of a quality PE program.

## Barriers

High school physical education programs differ in funding, equipment, instruction, and quality. Some programs have sufficient equipment and an appropriate ratio of teachers to students. On the other end of the spectrum, there are programs struggling to have certified physical education specialists and limited equipment (Lackman \& Chepyator-Thomson, 2017). However, this issue goes deeper than just in the physical education classroom. On a broader scale, there is a major achievement gap in educational opportunities (Spenner et al., 2004). Generally, low poverty school districts have higher test scores, graduation rates, attendance, and admission to prestigious colleges. School districts with higher poverty tend to have lower
test scores, graduation rates, attendance, and fewer overall opportunities (Malkin, 2006). Such schools are generally classified as Title I, where over $75 \%$ of the student population qualifies for free or reduced lunch based on their income. The challenges with teaching and learning at Title I schools can be overwhelming as teacher turnover can double their counterparts at low poverty (Owens, 2018). Another major challenge is the teacher-coach role conflict that many high school PE teachers face (Konukman et al., 2010). The pressures of winning in the varsity sport and time commitment can have an effect on the quality of instruction in their PE programs.

## Culture

There are trends towards urbanization in the United States where more families are residing in larger cities, and that will have an effect on physical education. According to the U.S. Census Bureau (2012), statistics are suggesting that more PE teachers will be working in urban rather than rural or suburban settings. Often, the characteristics of urban schools include geography, race, and socioeconomics. In many instances, the terms often refer to students from low-income families, of African American or Hispanic ethnicities, and underfunded schools (Milner, 2012). With this trend comes structural challenges including large class sizes, limited access to equipment, and a dedicated space for physical education classes (Sliwa et al., 2017). Recent graduates of physical education teacher education (PETE) programs may be underprepared when starting work in urban schools. New teachers who have had no prior professional experience in urban schools are more susceptible to feeling overwhelmed (Sato et al., 2013). Furthermore, those whose sociodemographic and geographic backgrounds differ from those of their students have also found urban education to be challenging (Culp, 2011). Other studies have described scenarios where Caucasian PE teachers in schools with a majority of minority students found it difficult to effectively connect with students (Flory \& McCaughtry, 2014; O'Neill, 2009). Most of the schools residing in urban areas were Title I, serving a low-income demographic. Milner (2012) discovered through personal experience that the term "urban" was often used in a negative context, but he further elaborated that
researchers often develop their own meaning of the term. Urban physical education is not synonymous with low-income schools or a bad education but has its own rich cultural context and contributions to society.

Physical activity levels are one important component of PE, but low and high poverty schools have cultural differences that help describe instruction at each school. Flory and McCaughtry (2011) suggest culturally relevant teaching require teachers to connect with students but also involves understanding specific community dynamics. Increasing teachers' cultural competency may help teachers whose background may not match their school's demographics. PE teachers that are from communities of color may demonstrate greater cultural competency than their white counterparts (Harrison et al., 2010). In one qualitative study, several African American PE teacher candidates reported feeling unsure of how to handle cultural norms and stereotypes. This included students' perceptions of "white" and "suburban" sports after starting to work in urban areas without relevant preservice training (Sato et al., 2013). Students will gain awareness through readings and coursework that address sociocultural issues which places less emphasis on team sports and increases exposure to schools in urban communities (Flory \& McCaughtry, 2014).

## Poverty

Sapolsky (2005), a neuroscientist and stress expert from Stanford, has linked a child's socioeconomic status to health. The lower a child's socioeconomic status is, usually the lower his or her overall health. When students live in substandard housing in low-income neighborhoods, they are exposed to much more hazards, including pedestrian risks, traffic, radon, carbon monoxide, and other environmental hazards (Evans, 2004). Poor children are more likely to live in older and inadequately maintained housing, which may lead to more exposure to lead in peeling paint (Sargent et al., 1995). The exposure to lead has been associated with decreased IQ levels (Schwartz, 1994). The lower the parents' income results in the likelihood to have children born both premature, with low birth weights, and with disabilities
(Bradley \& Corwyn, 2002). Pregnant mothers living in poverty are more likely to work in hazardous environments and be exposed to smoke, alcohol, and other drugs which are linked to prenatal issues and birth defects (Bradley \& Corwyn, 2002). Children from low-income families have generally poorer physical health than their peers from affluent families (Jensen, 2009). There are higher instances of obesity, asthma, and respiratory infections (Gottlieb et al., 1995; Simoes, 2003; Wang \& Zhang, 2006). The contributing factors include poor nutrition, unhealthy environmental living conditions, and a lack of quality health care. Furthermore, children with no health insurance may not receive adequate if any screenings, treatment for illnesses, and other medical concerns compared to their affluent peers with insurance and access to quality care (Bradley \& Corwyn, 2002). Overall, a significant portion of health differences across low and high-income neighborhoods could be explained by the differing levels of stress related to each living situation (Broadman, 2004).

Poverty has an effect on school performance and behavior. The majority of low-income students have a greater incidence of increased school absences, duration of absences, tardiness, illness in class, and rates of undiagnosed and untreated health problems (Jensen, 2009). The previously mentioned issues stated above can and do occur with middle/upper income students, but they are more common and severe with students living in poverty. With the majority of high poverty schools serving $75 \%$ or more of their student population on free and reduced lunch, poverty has an effect on the instruction and experiences in those schools compared to low poverty institutions. As a result of the missed class time, low-income students, especially in high poverty schools, miss key content and skills from classroom instruction. Thus, these students often fall behind their peers who may not be experiencing the same types of socioeconomic challenges (Jensen, 2009).

## Knox County Schools

Knox County Schools (KCS) is a public-school district located in the Knoxville, Tennessee metropolitan area. According to the state of Tennessee 2019-2020 data, there were

59,904 students in grades PK, K-12 (Tennessee Department of Education, 2020a). KCS is served by more than 8,000 teachers and staff with a student-teacher ratio of 16 to 1 (Knox County, 2021). There are 18 high schools in KCS with the breakdown as follows: 11 Traditional, 3 Academies, 2 Magnet, 1 Alternative Setting, and 1 Virtual Learning Program. With only 26\% of all students enrolled in KCS being classified as economically disadvantaged, there is relatively lower poverty rates within the district (Tennessee Department of Education, 2020a). Of the 18 high schools, only 7 are classified as high poverty schools with a simple majority of more than $50 \%$ of the student population being from low-income households. KCS high schools offer the following physical education courses to students: Physical Education I, Advanced Physical Education, Lifetime Wellness, Aerobics, Conditioning, and Advanced Strength Training. Course descriptions are located in Appendix G. Last, the demographics of the student population breakdown are as follows: Black 16.7\%, White $68.9 \%$, Hispanic 10.7\%, Asian 3\%, Native American $.40 \%$, Hawaiian/Pacific . $30 \%$, and economically disadvantaged $26 \%$. The demographics of KCS teachers are as follows: Black 3.4\%, White 91.6\%, Hispanic 1.5\%, Asian $0.5 \%$, Native American 0.1\%, Hawaiian/Pacific 0\%, Two or More Races $.7 \%$, and Unidentified 2.2\%. (Tennessee Department of Education, 2020a). Further analysis of the 4,264 teachers in the 2019-2020 academic year is as follows: inexperienced teachers (less than 3 years teaching) $18.6 \%$, experienced teachers $81.4 \%$, teachers with emergency/provisional credentials $0 \%$, teachers teaching out of field $.02 \%$, and teachers teaching in field $99.98 \%$ (TDOE Educator Experience, 2020).

## Significance

The significance of this study is that it addresses important socioeconomic aspects of education in low-poverty and high poverty schools. One study found that in some districts with a majority of lower-income students, the physical education experience may not be similar to their upper income peers in other districts (Belansky et al., 2016). Economically disadvantaged students do not experience the same quality of education that students in low-poverty schools
receive (Tajalli \& Opheim, 2005). There may even be more distinct differences in the physical education classroom. Equally important will be the information gained from the interviews with the physical education teachers. The interview questions will give candid responses on the realities of teaching in each type of school. When administration understands the challenges and opportunities at each school, they can better support their physical education teachers. All schools have challenges, and the results of this study can help teachers in similar socioeconomic climates teach high quality physical education. Bridging the gap is important for county-wide physical education directors. As a part of the fidelity of the Knox County curriculum, supporting teachers in economically disadvantaged areas is crucial with educational equity. Knox County Board Policy J-110 states, "All students shall have the same opportunities with regard to programs and activities regardless of race, color, creed, religion, national origin, sex, or disabilities." As this of the most recent push towards equity, current Superintendent Bob Thomas stated that eliminating disparities in academic achievement and discipline was one of the three top priorities in his position. Further, KCS has adopted the formal definition of equity as follows: "Championing the individual cultures, identities, talents, abilities, languages and interests of each student to maximize academic success and social-emotional well-being by promoting that they receive educational opportunities and resources, even when this means differentiating resource allocation, to meet their unique circumstances and educational aspirations" (Flory, 2021, p. 1). There should not be major differences in the quality of physical education within the same school district. Some programs will be of higher quality, based on the instructors' experience and abilities, but the overall delivery of instruction can be improved at all schools. We must first fully understand the cultural climate and baseline structure of teaching in order to improve pedagogical preparation.

The central hypothesis of this study is that teaching high school PE at low and high poverty schools may have cultural and instructional differences. The differences may vary on the selection of activities, unit plans, the amount of equipment offered to students, and the PE
teachers' perceptions of quality instruction at their school. Since quality is relative to the individual, the study will help determine what is valued at low poverty and high poverty schools within the course of planning, teaching, and assessing at each school.

## Purpose and Aims

The purpose of this study is to investigate the differences in high and low poverty high schools' physical education instruction in Knox County, Tennessee. The goal for this study is to understand the characteristics of high school physical education classes within the county and to examine the perspectives of the physical education teachers. The physical education programs vary in several factors including the experience of the instructors, educational preparation of the instructors, and the quality of the instruction given to students. The project aims are listed below:

Aim \#1: To determine the characteristics of high school physical education classes in low and high poverty schools.

Aim \#2: To determine physical education teachers' perspectives of quality high school physical education instruction in low and high poverty schools.

Methods/Approach

## Methods

Over the course of 12 weeks, interviews were conducted with high school PE teachers during the spring 2021 semester in Knox County Schools. The case study approach was chosen due to its analysis of a single phenomenon within the real-life context of Knox County High School Physical Education teachers' perspectives (Creswell, 2018). Furthermore, case study research fits because it empowers the researcher to understand a small number of cases in real world context (Bromley, 1986). Yin (2012) described qualitative interviews as a valid measure to obtain data.

Each PE teacher was interviewed twice. The first interview consisted of questions that explored the "big picture" of high school physical education, while the second interview examined "the process" of teaching high school physical education. Additionally, the teachers provided lesson plans, curriculum guides, and/or pacing guides to be examined. Constant comparison and within-case and cross case analysis was used to find common themes, instructional practices, activities, and lesson design (Creswell, 2014; Glaser \& Strauss, 1967). Overall, this research investigated the differences between the perspectives of high school physical educators at low and high poverty schools within the same school district.

## Pilot Studies

The first pilot study was conducted in mid-July 2020 and lasted one week in duration. I interviewed five doctoral students in my cohort (EdD in Kinesiology). The purpose of the interviews was to gain experience in qualitative data collection and explore if the first round of questions were going to collect the information I was looking for in the study. I was also aiming to discover the approximate time the interviews would take. Further, I was able to dialogue with each cohort member that participated and develop a better understanding of the process. After interviewing five cohort members, the amount of time taken was (61, 25, 37, 41, and 33 minutes) with an average of 39.4 minutes per interview. Although longer than I was anticipating, the interactions also involved dialogue with suggestions to refine the original questions. See Appendix A for the changes made to the interview questions:

The second pilot study in the first week of August 2020 involved five high school physical education teachers in different regions in the United States. Two teachers are currently employed in the Mountain West region, and three are employed in the Southeastern region. All of the participants in the second pilot study teach in public high schools. The purpose of the second pilot study was to refine the interview questions, practice interviewing, and coding the data for meaning. Each interview was transcribed, returned for accuracy and interpretation checks, and then coded using axial coding and then values coding. The additional practice also
helped the researcher to use probing techniques to garner deeper, rich data from the participants. The experience interviewing and practicing different coding techniques was beneficial to build the skill set and confidence to further use qualitative interviewing in the case study.

The third pilot study occurred in Cumberland County Schools, North Carolina during the fall 2020 semester. Six high school physical education teachers were interviewed using the $1^{\text {st }}$ round of questions. Four teachers taught in high poverty schools, and two were currently teaching in low poverty schools. Of the six teachers, only two had earned master's degrees, but only one was in physical education and health content. In addition to the qualitative interviews, each PE teacher submitted lesson plans and pacing guides. Similar to the second pilot study, each interview was transcribed, returned to the interviewees for accuracy and interpretation checks. Following the accuracy and interpretation checks, the researcher coded the interviews which further refined the practice. Lesson plans and pacing guides were also analyzed for similarities and differences. There were three distinctive similarities among the PE teachers interviewed. First, all six PE teachers used the county wide provided lesson plans and pacing guides. None of the teachers interviewed wrote and used their own lesson plans or pacing guides. Second, every teacher mentioned "lifetime health and fitness" as an important theme in their PE program. Third, every teacher mentioned behavioral issues and discipline as one the main challenges in teaching high school physical education.

## Recruitment

Permission from Knox County Schools Office of Research, Assessment, \& Evaluation, and the Knox County Physical Education \& Health director was obtained in early February 2021. Then, I obtained Internal Review Board approval from the University of North Carolina at Greensboro (UNCG) during February 2021. At the request of Knox County Schools, all high school PE teachers were recruited with an email that clarifies the purpose of the research and criteria for involvement. The email was sent to the building principal who then forwarded the
recruitment information to their physical education teachers. Once approval from the building principal was given, I sent recruitment emails to the department heads and individual PE teachers. Interviews were scheduled based on their response of participation.

## Participants

Purposive sampling was used in this case study because the target was specific to the design (Patton, 2015). The target sample size of 18-20 participants, which includes 3 PE teachers from each school at 3 low poverty ( 9 total teachers) and 3 high poverty schools ( 9 total teachers). However, the actual number of participants was 16 with, (8 LP \& 8 HP). This balanced number represented both ends of the spectrum. This distinction helped to solidify the study's range and reliability. To be eligible for involvement in the study and to be interviewed, high school physical education teachers had to be teaching in the physical education department full time, at least 3 classes. The participants were certified teachers with active Tennessee teaching licenses including the endorsement "K-12 Physical Education". All PE teacher participants were given an information sheet (consent) that states participation in the observational study was voluntary. They had the opportunity to discontinue participation at any time. Exclusion criteria included substitute teachers that are teaching the high school PE classes and individuals teaching only one PE class in combination with other subjects. Appendix E describes each participant with a profile that is de-identified for anonymity.

## Study Design

This case study used qualitative interviews to explore a small number of schools within one school system. By nature, the case study approach fit this scenario as the primary investigator aimed to understand what is happening in the local context (Yin, 2012). The study was descriptive in nature as it used lesson plans, curriculum/pacing guides to discover characteristics of high school physical education instruction (Creswell, 2013). The interviews were designed to understand the perceptions of quality instruction in each school. Inductive methods were used to generate qualitative findings (Creswell, 2013). The qualitative interviews
used open-ended questions and allowed the PE teacher to speak candidly about how they prepare and execute classes. Within-case and cross-case analysis was used to study two data sets of interviews with high and low poverty school PE teachers (Creswell, 2014). The questions also reflected the successes and challenges at each respective school. Each high school PE class is on block scheduling, which is 90 minutes in length. Participating schools and teachers were de-identified and only include the distinction of low or high poverty as all other identifiers were randomly assigned a number for analysis purposes. De-identifiers were changed for both schools and teacher participants to the following: poverty schools (LP 1, LP 2, LP 3) / high poverty schools (HP 1, HP 2, HP3) and low poverty teachers (LP 1, LP 2, LP 3) / high poverty teachers (HP 1, HP 2, HP 3).

## Procedures

The information gained from the interviews with the physical education teachers was candid. The interview questions allowed the participants to give open and authentic answers on the realities of teaching in each type of school. When administration understands the challenges and opportunities at each school, they can better support their physical education teachers. Interview questions have been adapted from a study that examined perceptions of quality instruction in online college courses (Yang \& Cornelius, 2004). Fraenkel and Wallen (2003) have suggested that interviewing is an essential method for checking the accuracy of impressions gained through observations. The interviews were conducted through Zoom online meetings with the option for teachers to call in using the telephone. Each meeting was private, and password enabled. Additionally, there was a waiting room to ensure confidentiality and security. The interviews were recorded, transcribed through a transcription software called Otter.ai, included a short summary with interpretations, and returned to the PE teacher for member checking to ensure accuracy with both the transcript but also the interpretation (Scott et al., 2016). The purpose of the qualitative interviews was to understand a situation or
phenomenon rather than to determine cause and effect (Fraenkel \& Wallen, 2003). Appendix C shows the interview guide both rounds of questions.

## Data Collection

The semi structured, open-ended questions provided the necessary insight to describe teaching high school physical education at a low poverty or high poverty school PE program (Aim 2). Each interview was audio/video-recorded, transcribed, and coded for emergent and common themes using axial coding. The interviews were approximately 30 to 45 minutes in duration, and the PE teacher could voluntarily stop at any time. Then, by involving participants with member checks, there is potential to enhance the overall credibility of the results (Scott et al., 2016). The triangulation of data collected through both rounds of interviews, lesson plans, pacing guides, and curriculum guides will only help strengthen meaning and themes derived (Patton, 2015). The responses were compiled to help build beneficial strategies within similar schools in Knox County.

## Data Analysis

Constant comparison was an important component of this case study as I examined high and low poverty physical education teachers' perspectives (Glaser \& Strauss, 1967). Withincase and cross case analysis of artifacts (lesson plans, pacing guides, and curriculum guides) and emerging themes from interviews helped describe the similarities, differences, and relationships that may have existed between low poverty and high poverty schools and the type of instruction given (Creswell, 2014). Relevant research on education equity and challenges of low-income schools have set up the opportunity to compare the two distinct groups (Owens, 2018; Spenner et al., 2004). As I looked for similarities and differences, I used an asset valuesbased approach that highlighted the strengths and priorities of each teacher through their perspectives of high school PE instruction. Each interview was transcribed and included a short summary of the interpretation before it was returned to the participant for member checks (Dye et al., 2000). Then, the interviews were coded, organized, and stored in an encrypted folder with
a password. The strategy of moving between cross case and within-case analysis facilitates the process of intuiting, or the critical reflection on and identification of themes found in the accounts of multiple respondents (Ayres et al., 2003). The common themes and differences formed the fundamental framework of the phenomenon. Stake (2006) described understanding multiple cases within the education setting, and the multi-case design was best suited. The cross-case analysis discovered commonalities across each setting. Using inductive analysis helped tell the story of PE in the low poverty (LP) and high poverty (HP) schools with limited biases.

Results

## Demographics

The majority of PE teacher participants (75\%) were male while $25 \%$ were female. The average age of the males $(n=12)$ and females $(n=4)$ was 40.25 years. The racial breakdown included 14 Caucasian (87.5\%) and 2 African-American (12.5\%) participants. Teachers with graduate degrees represented (62.5\%) while (37.5\%) only had a bachelor's degree. Overall, there was a wide range of teaching experience ( 28 years) with as little as 4 years to a maximum of 32 years. The average number of years of teaching experience was (14.66) for ( $\mathrm{n}=16$ ) participants. In addition to their teaching duties, (93.75\%) coached a varsity sport and (56.25\%) coached more than one sport.

In the LP schools, there were 8 participating teachers with $6 / 8$ ( $75 \%$ ) male and 2/8 (25\%) female. All 8 participants were Caucasian with the average age of the PE teachers being about 38 years old (38.625). The average years of teaching experience was about 15 or (15.19). Of the 8 participants $5 / 8$ (62.5\%) had earned graduate degrees. With regards to coaching duties, $7 / 8$ (87.5\%) coach a varsity sport and 4/8 (50\%) coach more than one sport.

In the HP schools, there were 8 participating teachers with $6 / 8$ (75\%) male and 2/8 (25\%) female. Of the 8 teachers, 6 (75\%) were Caucasian and 2 (25\%) were African American. The average age of the 8 participating teachers from HP Schools was about 41 or (41.875)
years old. The average years of teaching experience in the HP schools was about 14 or (14.13). Of the 8 participants $5 / 8(62.5 \%)$ had earned graduate degrees. With regards to coaching duties, $6 / 8(75 \%)$ coach a varsity sport and $5 / 8$ ( $62.5 \%$ ) coach more than one sport.

## Schools Representation

In Knox County Schools, there are 18 high schools. For classification purposes, high poverty (HP) schools were designated with $51 \%$ on the free and reduced lunch program. On the contrast, low poverty (LP) schools were designated with $51 \%$ not on the free and reduced lunch program. Overall, only $26 \%$ of all students in the county were considered economically disadvantaged (Tennessee Department of Education, 2020a). See the illustration (Figure 1) of the breakdown of HP and LP schools:

Figure 1: Illustration of Economically Disadvantaged \% of Students Per School

| Low Poverty <br> Schools | \% Economically <br> Disadvantaged | High Poverty <br> Schools | \% Economically <br> Disadvantaged |
| :---: | :---: | :---: | :---: |
| LP 1 | 11 | HP 1 | 52 |
| LP 2 | 20 | HP 2 | 55 |
| LP 3 | 22 | HP 3 | 56 |
| LP 4 | 23 | HP 4 | 60 |
| LP 5 | 32 | HP 5 | 61 |
| LP 6 | 38 | HP 6 | 74 |
| LP 7 | 38 | HP 7 | 77 |
| LP 8 | 39 | HP 8 | 83 |
| LP 9 | 44 |  |  |

Note. The Virtual Learning Program did not have statistics for the 2020-2021 academic year.

In the Knox County Schools System, there is an interesting dynamic among the representation of the schools. Prior to the 1987-1988 school year, the city of Knoxville and Knox County operated separated school systems. In the 1987-1988 school year, the two systems were consolidated into Knox County Schools (Shepard, 2002). For this case study, the schools were also broken down into City Schools and County Schools. Of the LP Schools' participants, $2 / 8(25 \%)$ were from City Schools or in the city limits of Knoxville. For the LP

Schools participating, $6 / 8(75 \%)$ of the participants were considered County Schools or outside of the city limits of Knoxville but residing in Knox County. The HP Schools were contrastingly different. The HP City Schools were represented by $7 / 8$ (87.5\%) participants. Only 1/8 (12.5\%) PE teacher participants of the HP Schools were from one of the County Schools.


#### Abstract

Aim \#1 The characteristics of high school physical education classes were similar between low and high poverty schools. Class sizes were usually larger on average and approached the cap size of 35 students for 1 teacher. Of the PE teachers that interviewed, the majority of them shared space or a gym for multiple classes, although the preference leaned toward having a designated space per class. Interestingly, another case study in Tennessee physical education programs saw similar findings of approaching the cap size of students and multiple classes being taught in one gymnasium (Dyson et al., 2011). Yet in both LP and HP schools, PE teachers had similar routines for the beginning of class involving attendance, dress out procedures, warmup routines for students, and then some type of preferred activity or options for students to be active at the end of class. Since the majority of PE teachers at the high school coach (and many coach multiple sports), game days often involved covering classes and letting students have free play or walking on the track. Supporting quotes include the following.


## Evidence of PE Characteristics.

- Teacher R: "I you know, when you're breaking your PE class up into segments, you know, you, you come in, you go through whatever warm up or stretch, or, in some cases, if I'm getting observed, I probably do a lead in game of some kind, then get some movement around, whether it be I don't know, let's, I always I like getting the there was a game I used to do all the time, when I first started teaching called hit the foot."
- Teacher D: "Well, I think structure number one, and then classroom management. We never have classroom behavior. I mean, our PE department... We're not sending people to the office, we're not writing people up because I feel like they have enough respect for us if we asked them not to do something for the most part."
- Teacher D: "...They go by the rules. And so I think structure number one and you know the variety of activities We don't, you know, we're not gonna roll the ball out play basketball the whole time."
- Teacher V: "...quality instruction looks like in an organized classroom organized flow, an organized flow of to, to add an overall flow in between activities, and throughout activities."


## Aim \#2

An overwhelming theme that arose during the interviews of both LP and HP teachers was lifetime physical activity and health \& fitness. This theme was strongly encouraged that "quality high school physical education instruction" focused on teaching students how to be healthy for the rest of their lives. Another theme that emerged involved active and engaged students in class. $6 / 8(75 \% \mathrm{HP})$ and $8 / 8(100 \% \mathrm{LP})$ teachers described students being active participants in class as an indicator of quality instruction. Gameplay was another theme mentioned by participants, with several options for students to play or compete against their classmates to meet the recommendations for daily physical activity. Supporting evidence includes the following.

## Evidence of Lifetime Physical Activity/Health \& Fitness.

- Teacher A: "I think the purpose of our PE program here is to kind of prepare kids to live. You know, I know it's kind of like the cliche thing like to prepare them to live a healthy life. But, I think the purpose really is to kind of give them kind of a robust toolbox of ideas and principles and just a foundation of education to be able to you know, have the tools necessary to live a healthy life."
- Teacher B: "I think I would say that the purpose of my PE program and especially at... is to get kids active. Get them where they're comfortable enough to try different games and be able to, you know, maybe create a workout on their own or create a fitness program on their own, where they're able to use this, you know, 10 years down the road, or 30 years down the road where they, they've gotten comfortable in exercising, and they can use that going forward."
- Teacher P: "The purpose of our PE program, hopefully, is to or ideally, is to promote lifelong movement for the kids to find some value in a type of movement that they can enjoy and do for a lifetime."
The second theme that arose was the differences in physical education teachers' perspectives on quality instruction. The differences between LP and HP schools' physical education instruction were not as distinct as anticipated. They were actually very similar in the structure of how instruction was delivered. For example, a majority of teachers described class starting with a big group warmup, followed by some type of stretching routine, then class usually
segmented into skill practice or another activity before being followed by small-sided and/or larger game play. Both LP and HP teachers stressed the importance of lifetime health, and they reinforced lifetime physical activity rather than traditional team sports. Although, many teachers did acknowledge that team sports did have a designated spot in their curriculum. From the analysis of the interviews, the main differences that emerged from open coding were related to discipline. HP schools mentioned disciplining students and issues with administration's ability or lack thereof to handle this component of physical education instruction. While discipline is an active issue at all schools, there was a much smaller number of LP teachers (3/16) that discussed this barrier during the interviews. Last, the only other difference was LP teachers mentioned fitness and instructional practices related to fitness where HP teachers talked more about classroom management. HP teachers discussed discipline and the administrations' handling of discipline more frequently than LP teachers. Discipline was the most common barrier listed during the second round of interviews for the HP group. For the LP teachers, the most common topic mentioned was a focus on fitness. Upon analysis of the interviews, two similarities emerged in the perspectives of quality instruction. The most common characteristic was a structured class, planned out well in advance in lesson plans. This was mentioned the most in both the HP and LP interview groups. Next, the second most common characteristic of quality involved supportive co-workers in the PE department and helpful administration. Supporting evidence can be found in the following:


## Evidence of Differences of Perspectives.

- Teacher V: "There are some good things that happen here, and fun activities along with learning experiences, but it's difficult to sustain any progress with the lack of structure and discipline."
- Teacher G: "The administration needs to discipline students for cutting class and not dressing out for class."
- Teacher G: "We are a flexible group of teachers (PE) that are often asked to deal with students who could not behave in their other elective classes, so the principals bring them down to the gym for us to help them burn up some energy or blow off steam."
- Teacher G: "I have had poor leadership with the administration where they would always side with the student in power struggles. It is exhausting to deal with students who will not follow the rules and procedures of class."
- Teacher E: "The barriers...and the lack of keeping students out of our space who don't belong in there."
- Teacher E: "I think that bigger problems within the school are the biggest challenges to the issues I face."
- Teacher Q: "Our Challenges could include inadequate space \& equipment, large class sizes, lack of Admin support, and student participation."


## Similarities

Although the primary purpose of the case study was to examine the differences in high school physical education instruction, there were several similarities that the primary investigator found among the HP and LP PE teachers and schools. First, there was a major focus on lifetime physical activity \& fitness as it related to the purpose of philosophy of each teachers' physical education programs. Of the 16 teachers interviewed, $8 / 8$ (100\%) of LP teachers and $7 / 8$ (87.5\%) of HP teachers mentioned lifetime physical activity \& fitness in this specific context. Second, organization and structure to the lessons was equally important to both LP and HP teachers. During the interviews, $6 / 8$ (75\%) of LP and 5/8 (62.5\%) of HP teachers discussed structure and organization as a key part of high school physical education class. Third, the topic of inclusion was strikingly similar in both groups. $5 / 8$ (62.5\%) of LP teachers and $6 / 8(75 \%)$ of HP teachers mentioned that lessons should be taught in a way that all students can learn, engage, and find success. Last, cooperation within the PE department, often referred to as teamwork, was similar in both groups. Six of eight (75\%) of LP teachers and $7 / 8$ (87.5\%) of HP teachers had the perspective of teamwork being a facilitator in quality physical education instruction.

## Discussion and Implications

According to a review of articles published in the top five American Educational Research Association Journals between 2000-2018, 80\% were focused on urban schools, $11.7 \%$ on suburban schools, and $8 \%$ on rural schools. (Diamond \& Posey-Maddox, 2020). The
differences between urban, suburban, and rural schools are well documented in the literature. A vast majority is focused on urban education despite most students attending suburban schools in the United States. While there is no single agreed-upon definition of the suburbs, it is generally meant to be "the physical space beyond a city's boundaries, yet still within the metropolitan area" (Kneebone \& Reid, 2013; Lacy, 2016, p. 370). Urban education is generally considered to be the schools in large, metropolitan cities in the United States like Los Angeles, New York, Chicago, and Atlanta. Another classification would be considered urban emergent where schools are typically located in large cities but not big as the major cities. Examples include the following: Nashville, Tennessee, Charlotte, North Carolina, Austin, Texas and Columbus, Ohio (Milner, 2012). Rural education is generally considered to be schools located 5-25 miles from an urban area (Cicchinelli \& Beasley, 2017).

One aspect that needs further discussion is the discipline in low and high poverty schools. While every school manages discipline issues, high poverty schools have more incidents on average. In one national survey, teachers in high poverty schools reported higher rates of verbal disrespect, fighting, and even assault (Griffith \& Tyner, 2019). Many times, there is a stigma of the tougher schools to teach in within a single school district. Often times, poverty is attributed to those schools as an influence on the discipline issues. If a school is tagged with a reputation of having misbehavior, fights, and challenging discipline, many stakeholders including parents, students, and even teachers do not want to teach there. The disorderly or unsafe environment makes learning difficult for the students (Griffith \& Tyner, 2019). Furthermore, the perspective, whether it is accurate or not, is that these schools are not as good as their counterparts at the low poverty or affluent schools. Teachers have perspectives on the quality of schools as they enter the teaching profession. Whether it be from personal experience as a student in one of those types of schools or what they hear from current teachers working there. Overall, the amount of discipline a teacher encounters can have positive or negative effects on their perspective of a school, the students, and teaching in general.

During the second round of interview questions, the topic of discipline emerged as a theme both groups of teachers discussed. For the low poverty schools' teachers, only 50\% (4/8) mentioned discipline as a major barrier to instruction. For the high poverty schools' teachers, $75 \%(6 / 8)$ described discipline issues as one of the challenges in their position as a physical education teacher. But, this data brings up another often overlooked practice. In the most recent Fordham Institute report on discipline in schools, many teachers, especially in high poverty schools, discussed the lack of reporting discipline issues or handling internally (Griffith \& Tyner, 2019). This practice helps administrators make their schools look better without having to report excess altercations to the district who then grades the schools on their ability to manage discipline. Teachers expressed disappointment when incidents were handled internally, seemingly with little to no consequences for the deviant behavior of the students. In the HP schools, some of the most striking quotes were as follows.

## Evidence of Discipline in HP Schools

- Teacher W: "Without discipline, it is hard to run any class in any school...we have issues with cellphones, students cutting class, and generally walking the halls....it is challenging to have consistency with the other students that are generally following the rules."
- Teacher $W$ : "A lack of consistent discipline from one administrator to the next..."
- Teacher S: "Students getting "thrown" into PE classes just for easy credit with no participation....lack of administration's support with behavior."
- Teacher V: "There are some good things that happen here, and fun activities along with learning experiences, but it's difficult to sustain any progress with the lack of structure and discipline."

In the LP schools, the quotes were similar but did not present as severe. The following quotes supported were as follows.

## Evidence of Discipline in LP Schools.

- Teacher G: "The administration needs to discipline students for cutting class and not dressing out for class."
- Teacher G: "I have had poor leadership with the administration where they would always side with the student in power struggles. It is exhausting to deal with students who will not follow the rules and procedures of class."
- Teacher E: "The barriers... and the lack of keeping students out of our space who don't belong in there."
- Teacher E: "I think that bigger problems within the school are the biggest challenges to the issues I face."


## City/County Schools

Another dynamic to explore is where the schools in Knox County are located. In KCS, the breakdown of the 18 high schools included 13 schools within the city limits of Knoxville, 4 schools outside of the city limits but within Knox County, and 1 virtual school that was not factored into the calculation because there were students from all of the 17 base schools mixed in that student population. Interestingly, the breakdown of 17 schools was as follows: 10/17 (58.82\%) were LP and 7/17 (41.18\%) were considered HP. Of the 13 City Schools, 7/13 ( $53.85 \%$ ) were LP while $6 / 17$ ( $46.15 \%$ ) were HP. Of the 4 County Schools, $3 / 4$ ( $75 \%$ ) were LP while $1 / 4(25 \%)$ was HP. It is often an unwritten rule that the county schools are far better quality than the city schools, and this can be traced back to the consolidation of the Knoxville City and County Schools back in the 1987-1988 school year. While 7/13 city schools were classified as low poverty, this statistic could be misleading as these schools' characteristics typically align with the same makeup as the county schools-predominantly white, low percentage of economically disadvantaged students, and suburban communities that feed into the school. The annexation of much of Knox County to reclassify as within the city of Knoxville has skewed the classification of the schools.

There are a few limitations to this study that may have an impact on the results. There were only 16 teachers out of the district that participated in the case study; 8 from Low Poverty Schools and 8 from High Poverty Schools. Another drawback of the study was the representation of only 7 out of 18 (about 38.89\%) high schools in KCS. Another issue could be the classification of schools as City or County Schools within KCS. Although some schools may be considered City Schools, they could possibly have more characteristics of suburban schools, most closely associated with other County Schools within the system. Within the last 30 years,
the city of Knoxville has annexed much of Knox County, whereas those schools would have been considered County Schools for this study. The socioeconomics within KCS are also a factor that could potentially skew the interpretations. While the majority of schools in KCS are within the city limits of Knoxville, a simple majority of are considered low poverty (LP) which is different from other similar school districts in the Southeast Region.

## Female PE Teachers

The way female teachers handle discipline may differ than their male counterparts, and one limitation in this study was the lack of female PE teachers. According to one study, one possible difference between male and female teachers' classroom management is that female teachers may perceive behavior problems to be more severe than their male peers (Green et al., 2008). Only four out of 16 teachers were female, and this could have had an effect on the perspectives of teaching physical education in in this case study. In KCS high schools, there are over 67 full time physical education teachers. However, only 17 were female, which is only approximately $25 \%$ of all the positions. Despite the lack of female participation, the percentage of participants was consistent with the percentage of female high school physical educators. Yet, this lack of female representation may have a connection to the coaching connection with KCS high school physical educators. Just under $94 \%$ of PE teacher participants were varsity coaches, and approximately $56 \%$ of them coached multiple varsity sports. In this case study, just under 69\% of the male participants (11 out of 16 ) coached football. So, the lack of female physical educators could have had an influence on how the results were interpreted.

## Types of Discipline Between Low and High Poverty Schools

One important distinction in my study may suggest that the types of discipline teachers manage may differ between LP and HP schools. According to the Fordham Institute (2019), teachers in high-poverty schools may face more severe discipline issues. In one study, HP teachers reported higher rates of physical fighting, assault, and verbal disrespect. In comparison to LP schools, HP schools' teachers were more than twice as likely to express verbal disrespect
in the classrooms and more than six times likely to say that fighting is a daily or weekly occurrence in their school. Last, teachers in HP schools were three times as likely to report being assaulted by a student than their peers in LP schools (Griffith \& Tyner, 2019). This unsafe environment makes learning difficult.

On the other hand, LP schools did not discuss physical violence, disrespect, and as severe discipline issues. LP school participants spoke more of cell phone usage and not dressing out/participating as their major disciplinary issues. Although, both LP and HP schools' participants mentioned students not participating as an important issue in their classes. Yet, HP schools discussed the bigger issues were also happening in other classes as well. The problems of students skipping out on classes, direct disrespect towards teachers, and physical violence were the most prevalent themes mentioned by HP schools' participants.

## CHAPTER II: DISSEMINATION

The impacts that this research will have on physical education teachers are promising and could be beneficial to the profession on numerous levels. For some teachers, the research may be validation for their current teaching strategies, practices, and physical education programs. Other teachers may use the information gained from this research to improve their current instruction. Quality physical education instruction can happen in any school, and it may differ based on the socioeconomics of the school. But, there might be more similarities than previously between the schools and teachers' perspectives. The high school serves as an important setting as it is the last school required for students before adulthood. The healthful living habits students are exposed to at this stage in their development could last a lifetime. Ultimately, this research could help county physical education directors, principals, assistant principals, and instructional coaches who support physical educators with the tools they may need to be successful in their unique academic settings. Also, it could further validate previous research on education in urban, rural, and suburban settings.

Presentation Script
My name is Mitch McGill, and I am a doctoral candidate at UNCG in the EdD in Kinesiology program, and my presentation is called Differences in High School Physical Education: A Case Study in Knox County Schools. (Slide 1)

My objectives with this presentation are to provide an in-depth examination of high school physical education within one school system, Knox County Schools in East Tennessee. A key distinction between the schools will be the classifications of low-poverty and high poverty, a simple majority of the student population for each classification. Important background information has shown that socioeconomics can have an influence in student achievement, growth, graduation rates. Educational equity gaps do exist, and many times there are socio economic influences that have a strong relationship and potential correlation.

Factors that can have an influence on instruction in the physical education classroom include socioeconomic status, varsity coaching responsibilities of high school PE teachers, geographic location, and funding for physical education programs. One distinction found in the research of this project was a trend for many high poverty schools to have a lack of equipment, large class sizes, and less experienced certified physical education teachers. (Slide 2)

Knox County Schools, located in the foothills of the Great Smoky Mountains in East Tennessee, is the $3^{\text {rd }}$ largest school district in the state. KCS has a student population of 59,904 with 18,546 specifically at the high school level. KCS employs more than 7,900 employees and has over 88 schools in the system. Sitting adjacent to the state's flagship university, the University of Tennessee Knoxville, there is no shortage of future educators for the school system. Contrary to other states, less than $1 \%$ of all teaching staff is employed in an alternative licensure setting. Over $99 \%$ of staff are certified teachers in the content area they instruct. Furthermore, Knox County Schools has interesting socioeconomics for a large public school system. With the national average of students qualifying for the free/reduced price breakfast and lunch program at $52.3 \%$, KCS sits at $26 \%$ for the discounted meal program. This is considerably lower than even the state average of $46.7 \%$. Thus, the dynamics make for interesting perspectives in a diverse school system. The demographics of the KCS students are as follows: White 68.9\%, Black 16.7\%, Hispanic 10.7\%, Asian 3\%, Native American 0.40\%, Hawaiian Pacific 0.30\%. (Slide 3)

Further context provides insight into the structure of Knox County's high schools. There are 18 high schools in KCS with 11 traditional, 3 academies, 2 magnet programs, 1 alternative setting, and 1 virtual learning program (now a completely virtual school as of the 2021-22 academic year). The high school offers five different classes within the physical education department including: Lifetime Wellness, Physical Education I, Advanced Physical Education, Aerobics, and Conditioning \& Advanced Strength Training. (Slide 3)

The purpose of this case study was to investigate the differences in low and high poverty high schools' physical education instruction in KCS. [Read Aims 1 and 2] (Slide 4)

Using a case study approach, I spoke with 16 high school physical education teachers in 2 rounds of semi-structured interviews including open-ended questions. The representation included 7 schools with 4 being from low-poverty and 3 from high poverty classifications. The interviews were recorded via Zoom, transcribed, and returned to the teachers for accuracy and interpretation checks. A short synopsis of the general interpretations was delivered to the participants. Teachers read through and sent back with any corrections or changes. I used the constant comparison method to examine similarities, differences, and thematic trends across the Low Poverty and High Poverty groups of teacher participants. Further inductive analysis was used to code themes. The data was coded three times in total after the interviews were returned following the general interpretations and accuracy checks. (Slide 5)

The demographics of the PE teacher participants were as follows: $75 \%$ male and $25 \%$ female, 87.5\% Caucasian and 12.5\% African-American, average number of years teaching was $14.66 \%$, and $93.75 \%$ coached a varsity sport while $56.25 \%$ coached multiple sports. (Slide 5)

Aim \# 1 investigated the characteristics of high school physical education in both LP and HP schools. Upon coding and analysis, the following themes arose: Lifetime Physical Activity and Fitness, Structured Activities, Inclusivity, Engagement, and Coaching Duties. The first theme was overwhelming for both LP and HP PE teachers. Teaching students how to be active for a lifetime well beyond the high school years was discussed in several variations. Read two examples of quotes. The second theme was structured activities. Those examples include the following quotes: Read two quotes. The third theme was inclusion and the discussions centered around finding activities for all students, especially those that are not interested in athletics. Read two quotes for Inclusion. The fourth theme commonly discussed was engagement and focused on keeping students active in lessons. Read two quotes for Engagement. The last theme was coaching duties. Just under $94 \%$ of participants coached a varsity sport and over
$56 \%$ also coached multiple sports. Most participants discussed that while there was not a verbal expectation to coach, it was often viewed as an unwritten expectation for PE teachers at the high school level. One perspective described the coaching duties as an asset. Read the Coaching Duties quote. (Slide 6)

Aim \#2 specifically targeted PE teachers' perspectives of quality high school physical education instruction in LP and HP schools. Upon analysis, two main themes emerged that contributed or hindered quality PE instruction. The theme facilitator with subthemes of teamwork and safe space for class arose from the coding process. The other theme was a barrier with subthemes of class size/space issues, discipline, and participation described the hinderances of quality PE instruction. Teamwork was discussed as a major facilitator among PE departments. Read Teamwork quotes. Another facilitator was safe space for class, and this often referred to having a designated gym/outdoor space for one class. Read Safe Space for Class quotes. The first barrier was class size/space for class. This often involved classes at or exceeding the cap of 35 students per teacher. Teachers described the challenges in the following quotes: Read class size/space for class quotes. Discipline was another barrier to quality instruction. This was framed as a lack of support from administration. Read discipline quotes. Last, student participation in class was a subtheme of the barriers to quality instruction. Read participation quotes. (Slide 7)

There were several key findings from the analysis of the interviews. For high school PE teachers, many had multiple responsibilities that other teachers did not necessarily have. For example, some PE teachers had morning supervision duties and lunch duties, while classroom teachers at their school would only have one or the other. Other responsibilities included proctoring for tests, covering classes when substitute teachers are not available, and coaching duties after school. Coaching varsity sports and multiple sports was a major characteristic of teaching high school physical education in KCS. Both LP and HP PE teachers agreed that teaching lifetime health and physical activity was the most important concept. Both groups
expressed a major challenge was getting students off of their phones and active during instruction in the gym. There were more similarities with the perspectives of purpose and barriers. However, the biggest distinction was discipline in HP schools. LP Schools spoke less of the day-to-day difficulties with discipline and more on the lifetime health benefits of their classes. (Slide 8)

In conclusion, the high school PE teacher participants provided candid information about teaching at their respective schools. An overwhelming response to teaching high school physical education was best described as a rewarding career with many describing it as their dream job. Both groups agreed that teaching students that lifetime health and fitness was probably the most important concept with their position as a PE teacher. Despite my own research and anecdotal bias as a high school PE teacher, there were more similarities than differences in the perspectives of the teacher participants. The differences were not as shocking as it was consistent with previous national research on education and socioeconomic status. High poverty schools had more issues with discipline, attendance, teacher retention, and graduation rates. (Slide 8)

The plan for dissemination involves 3 products created. First, an executive summary was developed for the KCS Health \& Physical Education Director. This will serve as a pulse on the trends, perspectives, and facilitators for high school physical education. Second, another handout "Project Results" was created to present within the district at professional development sessions, usually occurring at the first of the semester and throughout district learning days quarterly. A $3^{\text {rd }}$ handout was created called "Tips for Engagement" and was based on the perspectives of the high school PE teacher participants in the case study. Long term goals involve bridging any education equity gaps by using strategies to increase engagement and ultimately the overall quality of high school physical education. (Slide 9)

The interviews were analyzed through an inductive method and by using constant comparison. Open and axial coding was used to discover general themes and then coded again
to look for specific themes related to aims $1 \& 2$. The results found more similarities in the perspectives of the PE teachers from both the low and high poverty schools. Common barriers related back to previous research within the education realm. The document titled "Tips for Engagement" was developed out of the case study. This is a conglomeration of positive ideas to increase the engagement of students in the physical education classroom setting and is based on the perspectives of the 16 high school PE teacher participants. The 4 categories developed were 1. Structure, 2. Choice/Options, 3. Student-Centered, and 4. Relevance. (Slide 10)

References, questions, and thank you. (Slides 11 \& 12)

## CHAPTER III: ACTION PLAN

An executive summary report will be given to stakeholders including the superintendent, school district physical education \& health director, and school board (Appendix O). It will present the findings from this research and detailed recommendations based on the results of the observations and interviews. The dissemination format will also be delivered in one-page handouts (Appendix M) at regional professional development workshops throughout the state of Tennessee. These handouts with a summary of the study will be available to the attendees upon request. The second dissemination product will be another one-page handout "Tips for Engagement" (Appendix N). This handout is a collective summary based on the perspectives of the participants in my case study. Furthermore, the Tennessee Association for Health, Physical Education, Recreation, and Dance (TAHPERD), hosts regional trainings in the spring and fall semesters for teachers. During the professional development trainings, teachers can earn continuing education units (CEUs) towards recertification of their teaching licenses. By attending and listening to the presentation, teachers may be interested in how their peers are teaching high-quality physical education at the high school level. They can then go back to their respective institutions and apply strategies, styles, and or programming to improve the quality of their physical education programs locally.

## Short Term Goals

The information from the research will first be used in workshop presentations to highlight how physical education may look in different schools. Since the data collected will be from Tennessee, the logical choice is to start disseminating locally. The Tennessee Association for Health, Physical Education, Recreation, and Dance (TAHPERD) promotes healthy, physicalactive lifestyles for all Tennesseans. TAHPERD offers workshops throughout the state that are highly beneficial to physical educators, and my availability to present will be feasible, both from a logistical and practical standpoint. The information will provide physical education teachers
with an outline of how schools are meeting state standards in their teaching practices, strategies, and lessons. In addition, the research may offer further explanation of differences in instruction from a socio-economic standpoint. Finally, the information may be of value to future physical educators in Tennessee. Understanding that education does have social and cultural implications, the geographic importance in this study could be of value to future teachers in the East Tennessee region.

## Long Term Goals

An executive summary of the findings will be given directly to the participating county's director of physical education and health. This is not to serve as a report card or to incentivize teachers taking the appropriate steps to teach high-quality physical education. Rather, this manuscript will serve by taking the "pulse" of the participating schools. There are differences in instruction based on teacher choice, socioeconomics, and accepted discipline norms. Despite county policies and rules district wide, some physical education programs may not be meeting the instructional expectations with fidelity. Thus, this could lead to differences with instruction time, engagement, and the amount of time students spend in moderate to vigorous physical activity. Furthermore, one-page documents will be given out at workshops demonstrating substantial evidence to the characteristics of high-quality physical education found in both high poverty and low poverty high schools. Data collection occurred from March 2021 through May 2021. Further, the timeline for disseminating the results of the research will be February 2022 through May 2022. This timeline gives the investigator adequate time to finalize the manuscript for the county physical education and health director, create one-page handouts, and develop the presentation for the spring/summer workshops.

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## Original Questions

(Round 1) General Focus: Big Picture of PE

1. What is the main purpose of your PE program?
2. Can you describe what quality looks like in your program?
3. What is your philosophy on PE?
4. How do you see high school PE's importance in the students' overall educational experience?
5. What role does high school coaching impact PE instruction?

## Amended Questions

(Round 1) General Focus-Big Picture of PE

1. How do you view the purpose of your PE program?

## Supporting question(s):

How many coworkers in your PE department?
2. During an ideal lesson..."if your principal was observing you"... what does quality instruction look like?
3. What is your philosophy of PE?

## Supporting question(s):

What kind of activities do you plan?
4. How do you see the importance of high school PE in the students' overall educational experience?
5. What other responsibilities do you have as a PE teacher at your school?

## Supporting question(s):

How does that impact your PE life?
Do you have sufficient time to complete your tasks as a PE teacher?

After interviewing five cohort members, the amount of time taken was (61, 25, 37, 41, and 33 minutes) with an average of 39.4 minutes per interview. Although longer than I was anticipating, the interactions also involved dialogue with suggestions to refine the original questions.

## APPENDIX B: IRB INFORMATION SHEET

Project Title: Differences in High School Physical Education: A Case Study in Knox County Schools

Principal Investigator: Mitchell McGill Faculty Advisor: Michael Hemphill, Ph.D.

## What is this all about?

I am asking you to participate in this research study because you are a high school physical education teacher in Knox County Schools. This study focuses on the perspectives of teaching high school PE in a case study approach. This research project will only take about 1 hour of your time split in two sessions and will involve you interviewing with me twice. Also, you will submit a lesson plan and/or curriculum guide as a part of the study. These documents will be reviewed to look for common strengths, activities, and assessment strategies. Your participation in this research project is voluntary.

## How will this negatively affect me?

There are no negative effects other than the time you spend on this project there are no known or foreseeable risks involved with this study.

## What do I get out of this research project?

Participating in this study may benefit society, particularly high school physical education. By understanding all perspectives of PE instruction, it can allow teachers to be mindful of best practices and highlight what works in their programs.

## Will I get paid for participating?

Participants will receive a $\$ 50$ Amazon gift card for completing the study. Incentives will be given at the completion of the two interviews.

## What about my confidentiality?

We will do everything possible to make sure that your information is kept confidential. All information will be de-identified upon receiving from the participants. Data will be stored in a
password protected, encrypted files that will have no identifying markers of participants by name. Hard copies of data will also be de-identified and stored in a locked file cabinet in the primary investigator's office. Data will be stored for five years following the closure of the study and then be destroyed. All information obtained in this study is strictly confidential unless disclosure is required by law.

## What if I do not want to be in this research study?

You do not have to be part of this project. This project is voluntary, and it is up to you to decide to participate in this research project. If you agree to participate at any time in this project you may stop participating without penalty.

## What if I have questions?

You can ask the primary investigator, Mitchell McGill (mbmcgill@uncg.edu)and 865-310-8648, and faculty advisor, Dr. Michael Hemphill (mahemphi@uncg.edu) anything about the study. If you have concerns about how you have been treated in this study call the Office of Research Integrity Director at 1-855-251-2351.

## APPENDIX C: PE PERSPECTIVES INTERVIEW GUIDE

Round 1

| Category | Main Question | Follow-up |
| :---: | :---: | :---: |
| Prior to beginning interview | Introductions. <br> Statement on participant's confic <br> Review informed consent. <br> Explain to the participant what I | dentiality. <br> am studying. |
| Intro | Tell me a little bit about yourself. <br> How many years of teaching experience do you have? <br> How many students are in your class on average? <br> What was your major in your undergraduate studies? | (Age/Sex/Race)-only if conversation leads into it... <br> Is it all in Physical Education? <br> Do you ever co-teach in the PE classes? <br> What is your highest education level attained? |
| Purpose | How do you view the purpose of your PE program? | How many coworkers are in your department? |


| Quality | During an ideal lesson..."if <br> your principal was observing <br> you"... what does quality <br> instruction look like? | Probe-I see...can you tell me more. |
| :---: | :--- | :--- |
| Philosophy | What is your philosophy of <br> PE? | What kind of activities do you plan? |
| Responsibilities | What other responsibilities do <br> you have as a PE teacher at <br> your school? | How does that impact your PE life? |
| Wrap-Up | Is there anything else you <br> would like to add about the <br> PE profession, your position, <br> or experiences? | Do you have sufficient time to complete your tasks as a <br> I would like you schedule your next interview if |

## Round 2

| Category | Main Question | Follow-up |
| :---: | :---: | :---: |
| Prior to beginning interview | Re-Introductions. <br> Statement on participant's cond <br> Review informed consent (a <br> Explain to the participant wh | fidentiality. <br> ain). <br> I am studying (again). |
| PE Program | Could you describe the components of an "ideal" PE program? | What do you feel that you need to have the ideal setting for your PE program? |
| Daily Routines | What is a typical day like teaching your PE classes? | Does it differ on game days? If yes, how so? |
| Planning | Could you describe your process for planning (including lesson plans, pacing guides, and other activities within your classes)? | Do you use any additional resources (other than KCS provided material)? <br> Could you tell me a little more about those resources? |


| $\begin{array}{l}\text { Philosophy of } \\ \text { Student Evaluation }\end{array}$ | $\begin{array}{l}\text { What is your philosophy of } \\ \text { student evaluation? }\end{array}$ | How do you determine the grades of your students? |
| :--- | :--- | :--- |
| Facilitators/Barriers | $\begin{array}{l}\text { What support systems do } \\ \text { you feel help you in } \\ \text { teaching your PE classes? }\end{array}$ | $\begin{array}{l}\text { What do you think are the aspects of your program that } \\ \text { make it run smoothly? }\end{array}$ |
| What are the barriers |  |  |
| associated with PE |  |  |
| instruction at your school? |  |  |$\left.\quad \begin{array}{l}\text { What do you think contributes to these challenges? }\end{array}\right\}$| Is there anything else you |
| :--- |
| would like to add about the |
| process of teaching high |
| school PE? |

## APPENDIX D: TIMELINE

| Project Tasks | $\begin{aligned} & \text { January } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { February } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { March } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { April } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { June- } \\ & \text { July } \\ & 2021 \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { August } \\ 2021 \end{array}$ | September -December 2021 | JanuaryMarch 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KCS IRB Approval | X | X |  |  |  |  |  |  |  |
| Resubmit UNCG IRB | X | X |  |  |  |  |  |  |  |
| Recruitment of Participants |  | X | X |  |  |  |  |  |  |
| Round 1 Interviews |  |  | X | X |  |  |  |  |  |
| Round 2 Interviews |  |  |  | X | X | X |  |  |  |
| Data <br> Analyses/Coding |  |  |  |  |  | X | X |  |  |
| Delivery of Incentives |  |  |  |  |  | X | X |  |  |
| Interpretation of Results |  |  |  |  |  |  |  | X |  |
| Dissemination of Study Results |  |  |  |  |  |  |  |  | X |

APPENDIX E: PARTICIPANTS-PROFILE

| Low Poverty Schools | Profile |
| :---: | :---: |
| Teacher A | 28 years old, 5 years of teaching experience, Caucasian Male, B.S., M.S., and Ed.S degrees, traditional route to licensure, specialized Certified Strength and Conditioning coach certification CSCS, also has another certification in Social Studies (Government), Coaches football, track, and serves as the schools' strength coach, former college athlete |
| Teacher B | 33 years old, 10 years of teaching experience, Caucasian Male, B.S. degree in PE, traditional route to licensure, former college athlete, coaches football |
| Teacher C | 38 years old, 15 years of teaching experience, Caucasian female, Traditional route to teaching license, Ed.S degree with principal certification, does not coach currently but has been a volleyball coach in the past, former college athlete |
| Teacher D | 43 years old, 21 years of teaching experience, Caucasian male, B.S. degree in PE \& Health, traditional route to teaching license, coaching multiple sports, former college athlete |
| Teacher E | 44 years old, 16 years of teaching experience, Caucasian female, B.S. degree with graduate hours in PE content, Traditional route to teaching license, currently coaches volleyball, former college athlete |
| Teacher F | 34 years old, 11.5 years of teaching experience, Caucasian male, B.S. degree in PE \& Health, Traditional route to teaching license, Coaches multiple sports, former college athlete |
| Teacher G | 52 years old, 28 years of experience, Caucasian Male, B.S. degree with grad hours in PE content, traditional route to teaching license, Coaches a varsity sport, former college athlete |
| Teacher H | 37 years old, 15 years of teaching experience, Caucasian male, M.S. degree in PE content, traditional route to teaching license, Coaches a varsity sport, former college athlete |


| High Poverty Schools | Profile |
| :---: | :---: |
| Teacher P | 36 years old, 10 years teaching experience/only 2 in PE, Caucasian Female, M.S. degree in Coaching, has another certification in Biology, coaches basketball and cross country, former college and pro athlete |
| Teacher Q | 46 years old, 10 years of teaching experience, Caucasian Male, M.S. degree in PE content, alternate route to teaching license, does not currently coach but has in previous years |
| Teacher R | 44 years old, 21 years of teaching experience, Caucasian Male, M.S. degree in PE content, traditional route to teaching license, Coaches a varsity sport, former college athlete |
| Teacher S | 37 years old, 10 years of teaching experience, Caucasian female, B.S. degree in PE content, Alternate route to teaching license, Coaches multiple varsity sports, former college athlete |
| Teacher T | 30 years old, 4 years of teaching experience, Caucasian male, M.S. degree in PE content, Traditional route to teaching license, Coaches multiple varsity sports, former college athlete |
| Teacher U | 50 years old, 18 years of teaching experience, Caucasian male, B.S. degree in PE, Traditional route to teaching license, Does not currently coach but has in previous years |
| Teacher V | 37 years old, 8 years of teaching experience, African American male, B.S. in PE, M.S. degree in Special Education, Traditional route to teaching license, Coaches multiple sports, former college athlete |
| Teacher W | 55 years old, 32 years of teaching experience, Caucasian male, B.S. in PE \& Health, Traditional route to teaching license, Coaches multiple sports, former college athlete |

## APPENDIX F: RECRUITMENT EMAIL

## Dear Fellow Physical Educator,

My name is Mitch McGill, and I currently teach Physical Education \& Health classes in Knox County Schools through the QuEST Virtual Program. This is my $14^{\text {th }}$ year in education, mostly teaching and coaching high school physical education. Currently, I am working towards completion of my doctoral degree at the University of North Carolina Greensboro. My research is a focused case study on the differences in high school physical education.

As a part of my study, I am interviewing high school physical education teachers to learn their perspectives on the process of teaching PE. The interviews will be approximately 15-20 minutes in duration. I am interested in learning and analyzing the values of specific components of instruction as it pertains to your program. As an asset-based approach, I am interested in the strengths of each program as you see it. Participation is completely voluntary, and you could withdraw at any time.

I am looking for at least 18 participants in the county, with the inclusion criteria that you teach at least two physical education courses at the high school level. Upon completion of the 2 interviews, you will receive a \$50 Amazon gift card for your time.

The attached informed consent offers further in-depth information on the study. I would really appreciate any help and participation. Thank you for your time and consideration.

If you have any further questions or clarification, please contact me at 865-3108648 or mbmcgill@uncg.edu.

Best regards,

Mitch McGill

## APPENDIX G: HIGH SCHOOL COURSE DESCRIPTIONS

## Physical Education 1:

Physical Education1 is a one-unit elective course. The goal of Physical Education 1 is to provide a variety of activities through four strands: Health Related Fitness; Individual Sports; Team Sports; and Basic Gymnastic Fundamentals. Each unit within the strand will be designed to teach the basic skills, rules and strategies necessary to understand and perform a variety of activities.

## Advanced Physical Education:

Advanced Physical Education is a one-unit elective course. The goal of Advanced Physical Education is to provide progressive skills, techniques and strategies in various activities. Prerequisite: Physical Education 1. Can be taken for multiple credits.

## Lifetime Wellness:

Lifetime Wellness is a one-unit course required for graduation. The goal of Lifetime Wellness is for students to learn a lifelong process of making healthy choices to integrate the emotional, social, intellectual, and physical dimensions of self for a longer, more productive and higher quality of life. The course consists of the following state standards: Personal Wellness; Mental, Emotional and Social Health; Safety and First Aid; Human Growth and Development; and Substance Use/Abuse.

## Aerobics:

Aerobics is a one-unit elective course emphasizing the importance in improving and maintaining a healthier cardiovascular system. Skills taught in order to achieve this goal include muscular endurance, muscular strength, cardiovascular endurance, flexibility and body composition. Regular aerobic workouts through the participation in aerobic routines, games and various other activities accompanied by a fitness assessment will be the primary instructional focus of this
course. Physical Education I is not a prerequisite for this course. Can be taken for multiple credits.

## Conditioning and Advanced Strength Training:

Conditioning and Advanced Strength Training is a one-unit elective course designed to allow students to make gains in conditioning, muscle tone, and strength while emphasizing the importance of making an active healthy lifestyle a lifelong practice. Health and skill related activities such as flexibility, speed, agility, coordination and power, along with self-discipline and a positive attitude will be the content focus. Proper nutrition will also be examined and emphasized. Physical Education I is not a prerequisite for this course. Can be taken for multiple credits.

## APPENDIX H: TENNESSEE HIGH SCHOOL PE STANDARDS

COMPONENT 1: MOTOR SKILLS (MS)
SUBCOMPONENT: GAMES, SPORTS, \& LIFETIME ACTIVITIES

| MS.1 | Demonstrate competency in activity specific manipulative skills (e.g., throwing, catching, kicking, striking, etc.) or sport specific <br> skills (e.g. serve, putt, cradle in lacrosse, sprint start, etc.) while participating in game or event. |
| :--- | :--- |
| MS.2 | Demonstrate game specific strategies by combining skills (e.g., softball throw to base, volleyball set to hitter, soccer pass to <br> teammate, etc.). |
| MS. 3 | Execute sport skills or strategies in response to the opponent (e.g., running routes, player positioning, guarding). |


| MS.4 | Demonstrate offensive skills and strategies during game play. |
| :--- | :--- |
| MS.5 | Demonstrate defensive skills and strategies during game play. |
| *Component <br> Extension (Advanced <br> ideas that are <br> optional) | Student-designed games, officiating, biomechanical principles, coaching tactics. |

## SUBCOMPONENT: FITNESS \& LIFETIME ACTIVITIES

| MS.6 | Engage in specialized skills in health-related fitness activities (e.g., yoga, resistance training, fitness walking). |
| :--- | :--- |
| MS.7 | Apply the principles of training to enhance an individual's current level of fitness (e.g., F.I.T.T.,overload, specificity, <br> progression). |
| *Component <br> Extension (Advanced <br> ideas that are <br> optional) | Race training, exergaming, high intensity interval training (HIIT). |

## SUBCOMPONENT: DANCE, RHYTHMS, \& LIFETIME ACTIVITIES

| MS.8 | Demonstrate rhythmical or choreographed steps (i.e., jumping rope, aerobic dance, line dance, educational gymnastics <br> routine) |
| :--- | :--- |
| MS.9 | Demonstrate a continuous dance sequence while synchronized with group or continuous jump pattern to music/verse. |
| *Component <br> Extension | Choreograph a dance, give a performance, free style. |

## SUBCOMPONENT: AQUATICS \& LIFETIME ACTIVITIES (OPTIONAL)

| MS.10 | Demonstrate aquatic skills (e.g., floating, rhythmic breathing, kicking, treading water). |
| :--- | :--- |
| MS.11 | Demonstrate swimming strokes (e.g., freestyle, backstroke, breaststroke). |
| *Component |  |
| Extension | Life-saving skills, diving, synchronized swimming. |

SUBCOMPONENT: OUTDOOR PURSUITS \& LIFETIME ACTIVITIES (OPTIONAL)

| MS.12 | Demonstrate essential skills (e.g., all-terrain walking, strength, balance, climbing). |
| :--- | :--- |
| MS.13 | Apply specialized skills (e.g., hiking, orienteering, rock climbing, mountain biking, fishing, kayaking). |
| *Component <br> Extension (Advanced <br> ideas that are <br> optional) | Plan an outdoor activity, Implement planned activity (e.g., camping, hiking, paddle boarding). |

## COMPONENT 2: COGNITIVE CONCEPTS (CC)

SUBCOMPONENT: MOVEMENT CONCEPTS \& PRINCIPLES

| CC. 1 | Analyze movement concepts and principles to improve performance (e.g., pathways, force, center of gravity). |
| :--- | :--- |
| *Component <br> Extension (Advanced <br> ideas that are <br> optional) | Design a practice drill to improve performance. |

SUBCOMPONENT: SKILL ANALYSIS

| CC. 2 | Identify critical elements (e.g., opposition, follow through, weight transfer). |
| :--- | :--- |
| CC. 3 | Justify the importance of each critical element in regards to skill performance (e.g., why, when, how). |
| *Component | Self/peer evaluation of skill. |
| Extension (Advanced <br> ideas that are <br> optional) |  |

SUBCOMPONENT: GAME RULES

| CC. 4 | Demonstrate rule application during game play. |
| :--- | :--- |
| CC. 5 | Use appropriate sport specific terminology (e.g., travelling, out-of-bounds, offsides). |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) |  |

SUBCOMPONENT: TACTICS \& STRATEGIES

| CC. 6 | Explain appropriate tactical decisions in a game situation. (e.g., use of a lob versus a drop; use of a chest pass versus a <br> bounce pass) |
| :--- | :--- |
| CC. 7 | Assess strategies needed to achieve specific effects/outcomes. (e.g., offensive strategies in order to score, defensive <br> strategies to obtain possession, player positioning, etc.) |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Recognize strategies \& tactics during game play (e.g., professional/collegiate athletics, opposing team). |

## COMPONENT 3: FITNESS \& PHYSICAL ACTIVITY (FPA)

SUBCOMPONENT: HEALTH-RELATED COMPONENTS

| FPA. 1 | Explain how health-related components of fitness impact overall health status (i.e., body composition, cardiovascular <br> endurance, muscular endurance, muscular strength, flexibility). |
| :--- | :--- |
| FPA. 2 | Participate in health-related fitness activities (e.g., weight training, stretching, cardio workouts). |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Research myths and facts. |

## SUBCOMPONENT: SKILL-RELATED COMPONENTS

| FPA. 3 | Explain how skill related components impact sports and fitness (i.e., balance, agility, power, speed, coordination, and reaction <br> time). |
| :--- | :--- |
| FPA.4 | Participate in skill-related fitness activities (e.g., agility ladder, yoga, plyometric). |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Match skill-related components to selected activities. |

SUBCOMPONENT: PHYSICAL ACTIVITY KNOWLEDGE

| FPA. 5 | Apply fitness terminology in appropriate settings (e.g., aerobic/anaerobic, target heart rate, FITT principle, isometric, warm- <br> up/cool-down). |
| :--- | :--- |
| FPA. 6 | Define the principles of training (e.g., overload, specificity, progression). |
| FPA. 7 | Identify activities that improve each component of fitness (i.e., health-related, skill-related). |
| FPA.8 | Calculate and apply resting, maximum, and target heart rate during various activities (e.g., cardiorespiratory activities, game <br> play). |
| FPA. 9 | Discuss current trends in fitness technology (e.g., apps, heart rate monitors, electronic activity tracker). |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Design a warm-up, cool-down, or circuit training routine. |

## SUBCOMPONENT: EXERCISE PRESCRIPTION

| FPA.10 | Construct fitness goals (i.e., S.M.A.R.T.) |
| :--- | :--- |
| FPA.11 | Design a personal fitness plan based on the FITT principle i.e., Frequency, Intensity, Time, Type. |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) |  |

SUBCOMPONENT: ASSESSMENT

| FPA.12 | Participate in health-related fitness testing (e.g., Fitnessgram). |
| :--- | :--- |
| FPA. 13 | Interpret individual results of fitness tests. |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Use results of fitness assessments to guide changes in a personal fitness plan. Investigate fitness applications, i.e., MapMy <br> Walk, FitBit. |

## COMPONENT 4: PERSONAL \& SOCIAL RESPONSIBILITY (PSR)

## SUBCOMPONENT: PERSONAL BEHAVIOR

| PSR. 1 | Demonstrate responsible independent behaviors (e.g., best effort, compassion, initiative). |
| :--- | :--- |
| PSR. 2 | Explain the role of the leader and follower within a group. |
| PSR. 3 | Demonstrate positive attitudes towards self and others through verbal and nonverbal behaviors. |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) |  |

## SUBCOMPONENT: RULES, ETIQUETTE \& SPORTSMANSHIP

| PSR. 4 | Explain the importance of following rules, procedures, etiquette and sportsmanship in the physical activity setting. |
| :--- | :--- |
| PSR. 5 | Display acceptance of decisions of judgement in socially responsible ways (e.g., teachers, sport officials, peer leaders). |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Differentiate between appropriate and inappropriate responses related to sports etiquette. |

## SUBCOMPONENT: COOPERATION

| PSR. 6 | Provide support and encouragement for classmates (e.g., acknowledge good play, accept success/performance limitations). |
| :--- | :--- |
| PSR. 7 | Display acceptance of individual differences (e.g., ability level, cultural background, gender, interest, age). |
| PSR.8 | Demonstrate conflict resolution skills. |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Engage in cooperative learning activities (e.g., icebreakers, team building). |

SUBCOMPONENT: SAFETY

| PSR. 9 | Apply best practices for participating safely in physical activity (e.g., equipment/facility use, peer awareness, environment, <br> personal medical needs). |
| :--- | :--- |
| PSR.10 | Engage in proper warm-up and cool-down procedures. |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) |  |

## COMPONENT 5: VALUES PHYSICAL ACTIVITY (VPA)

## SUBCOMPONENT: APPRECIATION

| VPA. 1 | Explain the health benefits of physical activity (e.g., physical, mental/emotional, social). |
| :--- | :--- |
| VPA.2 | Determine the value of physical activity to meet an individual's personal needs (e.g., social interaction, self expression, stress <br> management). |
| VPA.3 | Explore community resources (e.g., community centers, greenways, parks). |
| *Component <br> Extension <br> (Advanced ideas that <br> are optional) | Explore employment/career options in fields related to physical activity. |

SUBCOMPONENT: CHALLENGE

| VPA.4 | Demonstrate a willingness to try new activities for challenge and personal reward. |
| :--- | :--- |
| *Component Engage in an activity that challenges oneself to the next level (e.g., Couch to 5 K, substitute player to starter, weight <br> Extension <br> (Advanced ideas that <br> management). |  |

## APPENDIX I: PARTICIPATION DEMOGRAPHICS

## Low Poverty Schools

Participating Teachers $=8$
Gender - 6 Male / 2 Female
Race - 8 Caucasian
Average Age of Teacher ~38 (=38.625)
Average Years of Experience $\sim 15$ years (=15.19)
Range $=23$ (5 years to 28 years of experience)
Graduate Degrees $=3 / 8$ with a Master's Degree and $2 / 8$ with an EdS
Coaching $=7 / 8$ Coach a Sport and $4 / 8$ coach More than One Sport

## High Poverty Schools

Participating Teachers $=8$
Gender - 6 Male / 2 Female
Race - 6 Caucasian / 2 African-American
Average Age of Teacher $\sim 41(=41.875)$
Average Years of Experience $\sim 14$ years (=14.13)
Range $=28$ (4 years to 32 years of experience)
Graduate Degrees $=5 / 8$ with a Master's Degree
Coaching $=6 / 8$ Coach a Sport and 5/8 coach More than One Sport

P Schools: (4 different schools represented)
City Schools-2
County Schools-6
HP Schools: (3 different schools represented)
City Schools-7
County Schools-1

| Low Poverty <br> Schools | \% Economically <br> Disadvantaged | High Poverty <br> Schools | \% Economically <br> Disadvantaged |
| :---: | :---: | :---: | :---: |
| LP 1 | 11 | HP 1 | 52 |
| LP 2 | 20 | HP 2 | 55 |
| LP 3 | 22 | HP 3 | 56 |
| LP 4 | 23 | HP 4 | 60 |
| LP 5 | 32 | HP 5 | 61 |
| LP 6 | 38 | HP 6 | 74 |
| LP 7 | 38 | HP 7 | 77 |
| LP 8 | 39 | HP 8 | 83 |
| LP 9 | 44 |  |  |

## Knox County High Schools

11 Traditional Brick and Mortar Schools
3 Academies
2 Magnet Schools
1 Alternative School
*1 Virtual School (not included with calculations in study)

| City Schools - 13 |
| :---: |
| 7/13 Low Poverty (53.85\%) |
| 6/13 High Poverty (46.15\%) |
| County Schools - 4 |
| 3/4 Low Poverty (75\%) |
| $1 / 4$ High Poverty (25\%) |

## APPENDIX K: THEMES/SUPPORTING DATA




|  |  | transitions and getting a lot of different types of activities and games in one lesson." <br> Teacher V: "...quality instruction looks like in an organized classroom organized flow, an organized flow of to, to add an overall flow in between activities, and throughout activities. |
| :---: | :---: | :---: |
| Perspectives of Quality PE |  | 5/8 LP \& 6/8 HP <br> Inclusive |
| Inclusive <br> Engagement | Lessons are taught in a way that all students can participate and find success. <br> Students are actively participating in class activities. | Teacher S: "Not your regular basketball softball volleyball units. I'm just like challenge more like challenge games, where they can every student can feel that they can participate and not have to |
| Lifetime Physical Activity \& Fitness | Students are taught the importance of living a healthy lifestyle and finding activities they can participate in after high school. | be athletic to participate in the games or the activities that we're doing." <br> Teacher P: "You have to, you have to, you know, find that activity that suit the, you know, suit the kids that within your program, but also give a good variety as to, you know, challenge them and distract them a little bit to try new things." <br> Teacher R: "You know, I think the four or five athletes that you might have in your in your class are going to go along with whatever you're doing. But it's getting the kids that really don't want to move to get excited about something. And the only way to get them excited about something is to show them multiple things, you know, if you just do basketball every day, well, not everybody wants to |


|  | play basketball. So, you <br> know, if you vary it up, and <br> we're going to do this for <br> this week, this next week, <br> and show them different <br> activities, then hopefully, <br> they'll get excited about <br> something. <br> Teacher R: "Quality <br> instruction includes the <br> need for inclusion of all <br> students, adaptations for <br> students with disabilities, <br> and opportunities to be <br> physically active most of <br> class time." <br> Teacher W: "...certain <br> kids, kids are more <br> athletic, obviously, are <br> going to be able to do a lot <br> more than kids that aren't, <br> and you want to try to <br> make an inclusive for <br> everybody that <br> everybody's involved, and <br> there's something that <br> everybody can do, and <br> everybody feels part of the <br> class. <br> Teacher W: "The ideal <br> program is highly <br> organized, structured, and <br> has activities for all <br> students. Not all of the kids <br> are athletic, but it would be <br> great if they all could <br> participate." <br> 8/8 LP \& 6/8 HP |
| :---: | :--- | :--- |


|  |  | everybody engaged and everybody being active in some way because I'm That's what we're here for is for them to be active. And so I think as long as they're active, and they are engaged in what's going on, then you again, you did your job for that day..." <br> Teacher D: "you know, moving around getting them active..." <br> 8/8 LP \& 7/8 HP <br> Lifetime Physical Activity \& Fitness tied to purpose and/or philosophy <br> Teacher F: "...to develop skills, games, and knowledge that can be applied throughout a student's life." <br> Teacher D: "I like to do things that are sort of I was I don't know if life skills are the best. But we play a lot of cornhole we play a lot of darts. We play ping pong, a lot of games like that, where they can play when they're, you know, 55 years old." <br> Teacher E: "...we want to make sure that they're getting all the stuff that they need later on in life, because a lot of the freshmen come in and think they don't need to know about health and wellness." |
| :---: | :---: | :---: |
| Facilitators <br> Cooperation of PE Staff <br> Safe Space for Class | PE Staff works together with high levels of cooperation. <br> Each class has adequate space and is a safe learning environment. | 6/8 LP and 7/8 HP <br> Teamwork <br> Teacher Q: "The best support system is other PE teachers!" |


|  |  | Teacher B: "And, and I think that's as huge if you can get, you know, a coworker, working together with you and understanding. You know, like, we've got one that coaches baseball for a while. We've got one of the coaches softball right now. And then I coach basketball for a little while. So we kind of, you know, work hand in hand.." <br> Teacher G: "Good coworkers and structure across the PE program." <br> Teacher P: "Cooperative coworkers/co-teachers since there are multiple classes in the gym/PE at one time..." <br> 6/8 LP and 5/8 HP <br> Designated Space for Class <br> Teacher V: "An Ideal PE program is safe learning, and experimental environment. It's one of the few houses in education that has somewhat of a green light for one to get creative and mesh themselves with the curriculum." <br> Teacher B: "I would think this space would be the biggest component of, you know, if you have enough room for kids to be able to move freely without worrying about other students? I think that's huge. You know, so, you know, if we had an extra gym or because a lot of times, you know, we've got two classes in the gym at a time, we've got two, we're blessed. We have two gyms here. But we have, |
| :---: | :---: | :---: |


|  |  | you know, up to four classes at a time for PE, so we're sharing so I think space would be the most valuable thing." <br> Teacher C: "I think safety is first and foremost, you have to be safe. Because if you're not safe, you have major problems. <br> Teacher W: "...resources, space to have class, good coworkers that support the mission of the PE program." <br> Teacher R: "...proper facilities and equipment." <br> Teacher P: "Cooperative coworkers/co-teachers since there are multiple classes in the gym/PE at one time, as well as enough equipment/space for every student to be involved." <br> Teacher Q: "In order to have the ideal PE setting, I need proper equipment and a safe environment." |
| :---: | :---: | :---: |
| Barriers |  | 4/8 LP and 5/8 HP |
| Class size | Large classes at or approaching cap of 35 students/and or team taught with another teacher. | Class Size/Space Issues <br> Teacher E: "The barriers are amount of space for all the classes, equipment needed, and the lack of |
| Discipline | Lack of support from administration/students not complying with school/class rules and expectations. | keeping students out of our space who don't belong in there." <br> Teacher R: "We do not have gym space for |
| Participation (lack of) | Active engagement in class activities. | multiple classes, and that causes challenges." <br> Teacher G: "We need smaller classes and designated areas for each class to participate safely. We have larger classes |


|  | and often have to co-teach <br> in one or two spaces." <br> Teacher H: "Teaching PE <br> is challenging, especially <br> with larger classes." <br> Teacher P: ".lack of <br> structure in the other <br> classes that are in the gym <br> at the same time." <br> 4/8 LP and 6/8 HP |
| :---: | :--- | :--- |
| Discipline |  |
| Teacher V: "There are <br> some good things that <br> happen here, and fun <br> activities along with <br> learning experiences, but <br> it's difficult to sustain any <br> progress with the lack of <br> structure and discipline." <br> Teacher G: "The <br> administration needs to <br> discipline students for <br> cutting class and not <br> dressing out for class." <br> Teacher G: "We are a <br> flexible group of teachers <br> (PE) that are often asked <br> to deal with students who <br> could not behave in their <br> other elective classes, so <br> the principals bring them <br> down to the gym for us to <br> help them burn up some <br> energy or blow off steam." |  |
| Teacher G: "I have had |  |
| poor leadership with the |  |
| administration where they |  |
| would always side with the |  |
| student in power struggles. |  |
| It is exhausting to deal with |  |
| students who will not follow |  |
| the rules and procedures |  |
| of class." |  |
| Teacher E: "The |  |
| barriers...and the lack of |  |
| keeping students out of our |  |
| space who don't belong in |  |
| there." |  |$|$



|  |  | Lack of Student <br> Participation <br> Teacher R: "at the high school level, it's the biggest conflict is to get them going, you know, get them moving. <br> Teacher C: "And that in high school, I think that's what you get, you know, you can't Oh, well, they're not active for an hour and a half. Listen, you're not gonna get an hour and a half. If you can get 30 minutes while that phone is in their pocket, then you've done good for the day." <br> Teacher Q: "Our Challenges could include inadequate space \& equipment, large class sizes, lack of Admin support, and student participation." <br> Teacher G: "...more and more disrespectful students who are lazy and do not want to dress out, participate, and are just ornery. They just want to sit and play on their phones. We used to be able to take the phones but now we are strongly encouraged to have the students put them away." <br> Teacher W: "a bunch of kids sitting around doing nothing, whatever." |
| :---: | :---: | :---: |

## APPENDIX L: AIMS/GENERALIZED FINDINGS

| Research Aims | Generalized Findings |
| :--- | :--- |
| Aim \#1: To determine the characteristics <br> of high school physical education classes <br> in low and high poverty schools. | Usually larger and approaching the cap <br> size of 35, usually in shared spaces for <br> most schools, both HP and LP PE <br> Teachers had similar routines for the <br> beginning of class, Giving students <br> options and free time (preferred activity |
| Aime), Game days often involved covering |  |
| \#2: To determine physical education |  |$\quad$| other classes \& free time/preferred activity |
| :--- |
| for students |
|  |
| feachers' perspectives of quality high |
| school physical education instruction in |
| low and high poverty schools. |
| includes cooperative activities |
| Class was structured, planned out in |
| advance, both found supportive co- |
| workers and administration helpful |


|  | LP had more focus on fitness |
| :--- | :--- |

DIFFERENCES IN HIGH SCHOOL PHYSICAL EDUCATION:

A CASE STUDY IN KNOX COUNTY SCHOOLS

High School Physical Education Teachers Interviewed
8 from Low Poverty Schools / 8 from High Poverty Schools


Mitch McGill, Version 1: November 1, 2021

## Results

## Similarities

$\forall$ There were more similarities in the purpose of high school physical education than expected.
$\forall$ A focus on lifetime health and fitness was a strong selection by both groups of educators.
$\forall$ Class routines were similar betw een the two groups (HP \& LP) physical education teachers.

## Differences

$\forall$ High Poverty teachers had more focus on discip line and larger class sizes.
$\forall$ Low Poverty teachers had more focus on fitness overall.

## Facilitators

$\forall$ Common facilitators of high-quality instruction included teamw ork within the department, support from administration, and adequate space to have class
$\forall$ Structured classes that were planned in advance were strong among both groups.
$\forall$ Communication between co-workers was stressed by both groups (HP \& LP)

## Barriers

$\forall$ Common barriers included a lack of teamw ork within the department, a lack of support from administration, large classes approaching the cap size, multiple classes within one gymnasium space, and discipline issues
$\forall$ High Poverty teachers mentioned more discip line issues and an overall lack of support in handling those from administration
$\forall$ A common barrier for both groups was physical education classes being a "dumping ground" for students who could not behave in other elective classes.

## TIPS FOR ENGAGEMENT

*Based on the perspectives of 16 High School PE T eachers

## Structure

$\forall$ Establishing class routines can be an important way to keep students on task.
$\forall$ Posting the learning objectives and agenda can contribute to students' participation.
$\forall$ Dividing class into segments (warmup, skill, activ ity, gameplay, etc.) can help.

Choice/Options
$\forall$ Giving students options of activity helps them take ownership of their learning.
$\forall$ Differentiating instruction helps meet students at their tolerance of the material.
$\forall$ Co-teaching and breaking into small groups can offer students the ability to pick their activity instead of being forced into only 1 or 2 choices.

## Student-Centered

$\forall$ Activities that are fun tend to get more participation
$\forall$ Disguising the fitness into games and challenges allows more students to be included.
$\forall$ Allowing student input in the planning process can also increase "buyin" to the activities taught each unit.

Relevance
$\forall$ Reinforcing health \& fitness as a lifetime endeav or can increase interest.
$\forall$ Using examples of real-life situations of using the content (ex. Fitness centers, lifetime sport leagues, etc.)
$\forall$ Connecting the lessons to current issues can spark further engagement.

## APPENDIX O: EXECUTIVE SUMMARY

MCGILL, MITCHELL B., Ed.D. Differences in high school physical education: A case study in Knox County Schools. (2021)

## Executive Summary

## Purpose

The purpose of this study was to investigate the differences in high and low poverty high schools' physical education instruction in Knox County, Tennessee. The goal was to understand the characteristics of high school physical education classes within the county and to examine the perspectives of the physical education teachers. The physical education programs vary in several factors including the experience of the instructors, educational preparation of the instructors, and the quality of the instruction given to students. The project aims are below:

Aim \#1: To determine the characteristics of high school physical education classes in low and high poverty schools.

Aim \#2: To determine physical education teachers' perspectives of quality high school physical education instruction in low and high poverty schools.

## Methods

Using a case study design, the researcher conducted the twelve-week study for high school PE classes during the spring 2021 semester in Knox County Schools. A case study was chosen due to its analysis of a single case (Creswell, 2018) of Knox County High School Physical Education teachers' perspectives. Furthermore, case study research fit because it understands a small number of cases in real world context (Bromley, 1986). Yin (2012) described qualitative interviews as a valid measure to obtain data. Each PE teacher was interviewed twice. The first interview consisted of questions that explored the "big picture" of high school physical education, while the second interview examined "the process" of teaching high school physical education. Overall, this research investigated the differences between the
perspectives of high school physical educators at low and high poverty schools within the same school district.

Purposive sampling was used in this case study because the target was specific to the design (Patton, 2015). While not reaching the target sample size of 20 , the actual number of participants was 16 (8 LP \& 8 HP ). This balanced number represented both ends of the spectrum. This distinction helped to solidify the study's range and reliability. To be eligible for involvement in the study, high school physical education teachers had to be teaching in the physical education department full time, at least 3 classes. The participants were certified teachers with active Tennessee teaching licenses including the endorsement "K-12 Physical Education".

## Results

The majority of PE teacher participants (75\%) were male while ( $25 \%$ ) were female. The average age of the males $(n=12)$ and females $(n=4)$ was 40.25 years. The racial breakdown included 14 Caucasian (87.5\%) and 2 African-American (12.5\%) participants. Teachers with graduate degrees represented (62.5\%) while (37.5\%) only had a bachelor's degree. Overall, there was a wide range of teaching experience ( 28 years) with as little as 4 years to a maximum of 32 years. The average number of years of teaching experience was (14.66) for ( $\mathrm{n}=16$ ) participants. In addition to their teaching duties, (93.75\%) coached a varsity sport and (56.25\%) coached more than one sport.

Although the primary purpose of the case study was to examine the differences in high school physical education instruction, there were several similarities that the primary investigator found among the HP and LP PE teachers and schools. First, there was a major focus on lifetime physical activity \& fitness as it related to the purpose of philosophy of each teachers' physical education programs. Of the 16 teachers interviewed, $8 / 8$ (100\%) of LP teachers and $7 / 8$ (87.5\%) of HP teachers mentioned lifetime physical activity \& fitness in this specific context.

Second, organization and structure to the lessons was equally important to both LP and HP teachers. During the interviews, $6 / 8$ (75\%) of LP and $5 / 8$ (62.5\%) of HP teachers discussed structure and organization as a key part of high school physical education class. Third, the topic of inclusion was strikingly similar in both groups. $5 / 8$ (62.5\%) of LP teachers and $6 / 8$ (75\%) of HP teachers mentioned that lessons should be taught in a way that all students can learn, engage, and find success. Last, cooperation within the PE department, often referred to as teamwork, was similar in both groups. 6/8 (75\%) of LP teachers and 7/8 (87.5\%) of HP teachers had the perspective of teamwork being a facilitator in quality physical education instruction.

## Conclusions

Teaching high school physical education can be a rewarding career. Most of the teachers interviewed talked about their position as a dream job. Despite the differences in the participating schools' socioeconomics, there were more similarities discovered than differences as a result of the study. Teachers wanted their students to learn about the concepts of lifetime health \& fitness, movement skills, and stay active during class time. The profile of a high school PE teacher was also interesting as it was primarily white males with a graduate degree, who had participated in some form of collegiate athletics and also coached at least 1 sport. Despite the differences in physical education teachers' priorities, teachers at both low and high poverty schools mentioned some discipline issues. Although, the high poverty schools had more focus on discipline and a lack of support from administration. Despite the small sample size, the themes that emerged were similar among both groups of teachers interviewed.

## Recommendations

This case study revealed more similarities than differences in the perspectives of high school physical education teachers. Moving forward, there could be more collaboration at professional development/trainings to share and learn strategies that work at each school. Knox County Schools represent a diverse group of communities within one school district, so it is logical to conclude what works at one school in one community might not work at another. Also,
some successful strategies may transcend socioeconomic differences, barriers, and other roadblocks to high quality instruction. Overall, quality instruction stands alone despite the different backgrounds, experiences, and values of the teachers and students.

## References

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## APPENDIX P: PRESENTATION



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| Find your we |  |
| Hesults: ATM |  |
| THEME | SUPPORTING QUOTES |
| Facilitators: Teamwork | "The best support system is other PE teachers!" <br> "if you can get, you know, a co-worker, working together with you and understanding" "Cooperative coworkers/co-teachers since there are multiple classes in the gym/PE at one time" |
| Facilitators: <br> Safe Space for Class | "We have two gyms here. But we have, you know, up to four classes at a time for PE, so we're sharing so I think space would be the most valuable thing" <br> "resources, space to have class, good coworkers that support the mission of the PE program" <br> "if you have enough room for kids to be able to move freely without worrying about other students...I think that's huge" |
| Barriers: Class Size/Space Issues | "We do not have gym space for multiple classes, and that causes challenges" "Teaching PE is challenging, especially with larger classes" "lack of structure in the other classes that are in the gym at the same time" |
| Barriers: Discipline | "The administration needs to discipline students for cutting class and not dressing out for class" <br> "and the lack of keeping students out of our space who don't belong in there" |
| Barriers: <br> Participation | "at the high school level, it's the biggest conflict is to get them going, you know, get them moving" <br> "do not want to dress out, participate, and are just ornery. They just want to sit and play on their phones" |

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## Find for unuber

## Key Findings

- Multiple responsibilities including supervision, test proctoring, and coaching after school.
- Coaching varsity sports and multiple sports was a major characteristic of high school PE teachers.
- Participants agreed teaching lifetime health and physical fitness was the most important concept.
- More similarities than differences between the two groups of teachers (from LP and HP Schools).
- HP Schools' PE teachers discussed discipline as a major challenge.


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