

**Secondary Physical Educators' Grading Outcomes and the Influence of the Environment**

by

Michael Anthony Morris, Jr.

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Approved by

Jared Russell Ph.D. Chair, Professor of Kinesiology  
Peter Hastie Ph.D. Co-chair, Professor of Kinesiology  
Sheri Thornburg-Brock Ph.D. Associate Professor of Kinesiology  
Jill Salisbury-Glennon Ph.D. Associate Professor of Educational Psychology

## ABSTRACT

The aim of this investigation was to deploy an ecological examination (Ecological Systems Framework) to account for the role the total school environment influences physical educator's grading outcomes. The framework illuminates the multi-layered influences that negotiate with individuals more specifically physical educators within their work environment. We ask, what are physical educators' uses of grading, and how does the total school environment influence grading outcomes in physical education? We do so to understand if the total school environment encourages physical educators to utilize non-achievement factors in their outcomes. Utilizing an explanatory mixed methods approach, we show that non-achievement factors may make up over half of the students' grades in physical education. The ecological model detailed the specific interactions in the total school environment that leads to formulation of a physical educator official grading criteria. Except for one participant, both proximal and distal influences discouraged physical educators from grading students objectively or on achievement factors. The significance of this study is that there are numerous influences that inspire physical educators to utilize non achievement factors, and stakeholders are not holding physical educator's accountable in their profession. Therefore, the recommended practices of grading should be communicated to stakeholders. Furthermore, physical educator's may lack the knowledge or skill to implement objective grading practices regardless of their environment. Although this was outside the scope of the research, there is a need to further study whether physical educators possess the ability to grade objectively. Moreover, there is a need to investigate the if national or state physical education policies are communicated to the district, then administration, and the classroom. Physical Education presents outcomes that reflect the affective, psychomotor, and cognitive domains of learning. The significance of genuine learning prepares students for all

facets of work. Yet the weighing non achievement factors, like dress, participation, and effort in students' grades sells the profession short. Ultimately, the total school environment as well as physical educators must work to uphold the integrity of their profession.

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## LIST OF ABBREVIATIONS

EST	Ecological Systems Theory
GPA	Grade Point Average
PE	Physical Education
NASPE	The National Association of Sport and Physical Education
SHAPE	The Society of Health and Physical Educators

## CHAPTER I INTRODUCTION

The aim of this study was to understand the role the environment plays when teachers devise their official grading criteria. As illustrated in the literature review, research has been done on related topics, particularly in physical educators espoused theories and theories in use. However, the working conditions, organization structures, school/teacher cultures, influences physical educators' grading outcomes remain largely unanswered before this study.

### **General Statement**

Teachers globally are primarily responsible for course grades or marks that students earn (Chen & Bonner, 2017). Student grades are integral aspects of instruction and evaluative practices in all disciplines, especially physical education (Stiggins, 1997). A grade presents students, parents and administrators on what a student understands throughout a period in addition to serving as a measure of student learning (James, 2018). Furthermore, grades are known as a reliable, secure method to hold students responsible for learning targets (Lund & Shanklin, 2011).

James (2018) believed that grading procedures should resonate with learning outcomes; moreover, the degree of completion concerning each outcome should correlate to the final grade. Likewise, Young (2011) suggested that grades should reflect achievement from a set of predetermined educational outcomes, benchmarks, or objectives, and measurement of performance on those predetermined outcomes is systematic, criteria-based, and comprehensive. Melograno (2007) suggested that grades should embody the authentic learning (i.e., learning that is relevant to students and the real world) and authentic assessment experience (i.e., an accurate demonstration of what students know, can do and value) approach.

However, literature indicates that teachers' grading practices in the United States are known as a "hodgepodge" or "kitchen sink" approach, where grades embody both classroom work (formal and informal) and non-achievement factors such as social, conduct, and motivational information (Brookhart, 1991; Cizek, Fitzgerald & Rachor, 1996; Cross & Frary, 1999). Physical education is no different, and factors, such as dressing out, effort, and participation are in the calculation of a final grade (Baghurst, 2014; Young, 2011). Scholars noted that utilizing such non-achievement in the calculation of student grades factors present objectivity, reliability, and validity issues (Dunham, 1994; Lund & Kirk, 2002; Morrow et al., 2005). As a result, these factors reinforce perceptions that physical education has no educational value. Although these aspects are essential for student learning to occur in physical education, they do not determine whether the knowledge and skills, defined by the learning standards, are met in physical education.

Matanin and Tannehill's (1994) investigation studied 11 high school physical educators on their perceptions of grading. Primarily physical educators reported their purpose of grading in high school to consist of: (a) to test student skill ability; (b) to test knowledge and skill activities; (c) to motivate students to appreciate physical activity; and to (d) measure participation in physical education. However, teachers reported the actual procedures they used to grade their students: on average, 28% of the students' grades came from active participation, 16% from knowledge, 14% from skill performance, 12% from appropriate attire, and 10% from attendance.

More recently, Svennberg et al., (2014) study explored the criteria physical education teachers when grading as opposed to the value they are given and took into consideration some of the environmental influences. The teachers sometimes had difficulties predicting which criteria had relevance to the grades given, and the criteria considered relevant by the teachers

were in the grade. The verbalized criteria revealed teachers using grades to encourage such student behaviors that helped them to handle the classroom situation and to facilitate students learning. Svennberg et al. (2014) investigation confirms the findings of Brookhart (1994) and Stiggins et al. (1986) that teachers grading reflects classroom realities were not present in the grading criteria. Johnson (2008) believed that such realities typically come from resistance among students, parents, community, and even administration.

### **Statement of Problem**

Grading non-achievement factors, such as behavior and attitudes, has been identified in various subjects and school systems (Brookhart, 1994; McMillan, 2003). Physical education is no exception, and non-achievement factors sometimes make up half or more of students' grades (Young, 2011). Matanin and Tannehill (1994) and Svennberg et al. (2014) research highlighted the non-achievement factors consisting of most of the student's grades. Those articles show that physical educators seem to value achievement factors concerning student performance yet utilize subjective and managerial performance indicators in their grading outcomes. Svennberg et al., (2014) alluded to Stiggins et al., (1986) belief that classroom realities make recommended practice inappropriate. Although Svennberg et al., (2014) briefly alluded to some of these realities from their observations they urged future researchers to consider additional environmental influences. Such as student's family background (Evans, 2004; Lekholm & Cliffordson, 2008), gender (Lekholm & Cliffordson, 2008; Redelius et al., 2009), classroom situation (Brookhart, 1994; McMillan, 2003), political decisions (Lekholm & Cliffordson, 2008; Korp, 2006), parents' and principal influence (Mickwitz, 2011), school culture and school facilities (Linde, 2012) negotiating with the internal factors of a teacher like knowledge of subject and pedagogy (Selghed, 2004; Stiggins et al., 1986), teacher's expectations and

evaluation of the students' achievements (Redelius et al., 2009; Stiggins et al., 1986), and teachers' beliefs and values (McMillan, 2003; McMillan and Nash, 2000; Penney et al., 2009). However, this map of influencing factors is not complete but presents a picture of the complexity and variety of factors impacting on teachers' grading practice (Svennberg et. al., 2014). Urie Bronfenbrenner's Ecological Systems framework (1977, 1979) is a useful stepping-stone to learning more about the experiences of physical educators within their total school environment and how they influence their grading practices. The Ecological Systems framework places the individual at the center as they negotiate the tensions between their inner and multi-layered external world.

## RESEARCH QUESTIONS

Utilizing Bronfenbrenner Ecological Systems framework (1977, 1979), the purpose of this study is to discover relations between a physical educator and their external environment; and understand how such links influence their grading practices. The objective is to answer the following research questions: (1) What are physical educators' uses of grading? (2) How does the total school environment influence grading outcomes in physical education?

### **Theoretical Framework**

To understand how the total school environment physical educators', reside in, Bronfenbrenner's Ecological System framework would be used as a lens for examining the immediate and distal environments that influence a physical educator's grading outcomes. Past research in education has utilize this framework from a theoretical perspective to examine how behaviors derive from influences at each level. However, for this study were not examining innate characteristics such as identity, emotions, and goals to understand the nature of one's personality. Those studies typically consider how the internal psychological characteristics navigate throughout the entire ecological framework to produce behaviors. Instead, the objective is to utilize the framework as lens to pinpoint where specifically in one's work environment helps influence their grading procedures. The Ecological Systems Theory (EST), also known as the ecology of human development, was founded by Urie Bronfenbrenner (1977, 1979). Bronfenbrenner (1995) suggested that culture and society offer expectations for how social settings are structured. It considers the individual as they navigate within a complex system of relationships among four nested environments (microsystem, mesosystem, exosystem, macrosystem).

The microsystem is the negotiations between an individual and their immediate setting. Bronfenbrenner enhanced definition within which he described the microsystem as a “pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with ‘particular physical and material features and containing other persons with distinctive characteristics of temperament, personality, and systems of belief’” (McLinden 2017, p.377; Bronfenbrenner 2005, p. 148). Cross and Hong (2012) concerning educators’ emotional experiences noted the students, parents, colleagues, and administrators as constructs of one’s microsystem in the school environment.

The mesosystem occurrences take place between two or more distinct environments that may influence one behavior. For instance, the relationship between a parent (family) and the student may indirectly influence a teacher. Hence, an educator’s relationship with a student’s parent may influence that student’s behavior in a classroom.

The exosystem is consist of the major institutions of the society and is both consciously arranged and consistently evolving and function at a distinct local level (Bronfenbrenner, 1979). These structures comprise the world of work, the neighborhood, the mass media, agencies of government (local, state, and national), distribution of goods and services, communication and transportation facilities, and informal social networks. The exosystem of an educator may comprise parent-teacher organizations, parents’ places of work, school board/district, governmental agencies, location, and finance (Cross & Hong, 2012; Hannaway, 2013, Paat, 2013; Smith et al., 2016).

The macrosystem does not involve direct contexts influencing the life of an individual, but to general prototypes existing in the culture or subculture (Bronfenbrenner, 1979). The macrosystem is the national and cultural decrees, laws, and rules of society. Furthermore, the

individual's culture and values manifest into policies. (Christensen, 2016). Bronfenbrenner often referred to the macrosystem as the blueprint of society (Smith et al. 2017, p. 269). The elements of a macrosystem for an educator consist of political decisions (Bronfenbrenner, 1977, 1979) cultural backgrounds (Cross & Hong, 2012), and perspectives of policy and PE programming (Kiley & Robinson, 2016).

### **Importance of the Study**

According to many state grade expectations and national standards (e.g., NASPE, 2004), physical education should be evaluated and graded based upon students' motor skill competency, cognitive knowledge, responsible class behaviors, and affective qualities. SHAPE (2014) believed it is necessary to use performance outcomes that align with the standards to serve as reference points for grade determination. SHAPE America's National Standards for K-12 Physical Education (SHAPE America - Society of Health and Physical Educators, 2014) provided performance outcomes to help physical education teachers make sound judgment about student learning. Student accountability for learning must be emphasized in physical education, and the grading system must support it.

When curricular objectives are shared with the students at the onset of a course, achievement-based grading can enhance student motivation to reach those articulated objectives. This grading practice incorporates accountability for the students, credibility for the profession, and enables teachers to share with students, parents, and administrators the reasons students received the grades they did (Young, 2011). Ultimately, this grading practice helps ensure meaningful and relevant physical education.

However, if the environment influences a physical educator to award grades that represent a student's degree of adherence to administrative rules or subjective measures rather than representing information about a student's competency about educational outcomes. Then they also allow room for others to question the meaningfulness and relevance of physical education. Young (2011) noted that some school districts exclude physical education grades from the calculation of students' overall GPA, and some colleges do not consider physical education grades in formulas for admission. Those external influences could play a role in the prevalence of non-achievement factors weighing heavily in students' grades. Bandura (1993) argued that the total school environment influences the teacher's since teachers do not operate in isolation with factors including administrative support, student and teacher characteristics, and parental involvement playing a role. Ultimately, understanding the environment presents inferences on teacher development, curricular guidelines, and faculty support.

### **Overview of Research Design**

A mixed methods research design could prove beneficial when investigating the proximal and distal environmental influences playing a role in the formulation of grading outcomes. The study utilized Matanin and Tannehill's (1994) survey that sought to understand physical educators' practices concerning grading. The survey answered question one. Following the administration of the survey, a semi-structured interview answered question two.

## DEFINITION OF TERMS

**Achievement:** Represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university (Steinmayr, Meißner, Weidinger, & Wirthwein 2014).

**Assessment:** NASPE defined assessment as “the process of gathering evidence about a student’s level of achievement in a specified subject area and of making inferences based on that evidence for a variety of purposes”

**Ecological Environment:** A nested arrangement of structures, each contained within the next (Brim 1975).

**Grade:** Grade (or mark) is generally used to denote both the mark on an individual assignment and the symbol (letter or number) or sometimes level (such as “proficient”) on a report card (Taylor & Nolen, 2008).

**Grading:** is a complex decision-making process that requires teachers to make value judgments to student learning, achievement, and growth (Sun & Cheng, 2014).

**Influence:** An affect that alters one’s perception or standpoint (Boyd et. al., 2011)

**Perceptions:** The predispositions that are innate and absent of influence (Matanin & Tannehill, 1994)

## **ASSUMPTIONS, LIMITATIONS, DELIMITATIONS**

This study assumes that secondary physical education programs are viewed as recess and is an arena for students to ‘blow off steam’ since much of their primary subject area coursework is rigorous. Therefore, teachers may have lost their belief that students can learn or want to learn physical education content. Another assumption of this study is that all participants will answer the questions honestly and entirely during the survey and interviews

A delimitation of this study was that the participants might not fully represent the norm for all physical educators. Larger and more professionally diversified group sizes may provide more insight. Furthermore, participants are residing within their environments, and how their perceptions negotiate in different environments will be unknown.

Another delimitation of this study is that the findings consist of the perceptions of physical educators. Perceptions may vary from other stakeholders, such as the students, parents, colleagues, or administrators. Taking into consideration of other stakeholders may highlight additional expectations or pressures physical educators face.

Having no prior formal teaching experience in post-secondary settings, the researcher may have unconscious and conscious biases concerning physical educators — the literature review summarized in Ch. II may also impart some bias. Often literature reviews are performed before beginning the research; therefore, they are not necessarily complete (Urquhart, 2013). Therefore, it is imperative not to force fit the findings of the study into the existing literature.

### **Summary**

This study will seek to understand the role of the environment influencing physical educators. As previous work highlights the espoused theories and theories in the practice of

physical educators, there is a knowledge gap in the role of the environment influencing the the grading outcomes physical educators use. The findings of the study may serve multiple stakeholders such as administrators, teacher-parent organizations, school board officials, teacher education programs, and, most of all, physical educators.

Four more chapters follow. Chapter II is a comprehensive review of the literature on grading in physical education and Bronfenbrenner's Ecological Systems model and clarifies how this study will fill this gap in the literature. In Chapter III, the topics discussed include the research design and specific details of how the study was conducted. The remaining chapters focus on the actual research conducted for this study. The findings are provided in Chapter IV, followed by a discussion and conclusion in Chapter V.

## CHAPTER II REVIEW OF LITERATURE

Students' academic performance, whether judged to be acceptable or excellent, is often indicated through their grades. As federal and state government agencies demand educational accountability in public schools, student grades intersect with teachers' performance and salaries (Ellett and Teddlie, 2003). Grading is a complex decision-making process that requires teachers to make value judgments to student learning, achievement, and growth (Sun & Cheng, 2014). Grade (or mark) is generally used to denote both the mark on an individual assignment and the symbol (letter or number) or sometimes level (such as "proficient") on a report card (Taylor & Nolen, 2005). Brookhart (1998) recommended that classroom assessment and grading practices are the standpoints of effective management of classroom instruction and student learning. Brookhart (2017) posed two ideas that should undergird an educator grading decision: Grades should reflect student achievement of intended learning outcomes, and grading policies should support and motivate student effort and learning. Furthermore, Newton (2007) posited that grading should not be with assessment at the decision level; instead, it should be at the judgment level as a standards-referenced technical process.

Within physical education, grading is one of the most critical aspects of pedagogy and evaluation (Stiggins, 1997). Grades replicate teachers' frameworks of knowledge and skills with other elements like attendance, motivation, and attitude (Cox, 2011; Leckholm & Cliffordson, 2009; Young, 2011). Matanin and Tannehill (1994) stated, "If students are held formally accountable (in terms of grade), they will put forth more effort and remain on task" (p. 396). Furthermore, having a sound accountability system determines a large part of what students learn, and regular monitoring of student progress often results in higher achievement (Tousignant & Siedentop, 1983). Melograno (2007) suggested that grades should embody the authentic

learning (i.e., learning that is relevant to students and the real world) and authentic assessment experience (i.e., an accurate demonstration of what students really know, can do and value) approach. Moreover, Young (2011) suggested that grades should reflect achievement from a set of predetermined educational outcomes, benchmarks, or objectives, and measurement of performance on those predetermined outcomes is systematic, criteria-based, and comprehensive.

Nevertheless, physical education is an arena within which systematic evaluation, formal assessment, and objective grading (based on assessment and evaluation) are infrequent (Hensley, Lambert, Baumgartner, & Stillwell, 1987; Imwold et al., 1982; Morrow, 1978). There has been deliberation concerning the relevancy of various non-achievement factors used for the determination of student grades such as attendance, being dressed in a physical education uniform, and participation (Young, 2011, Buck, et al., 2007; Darst & Pangrazi, 2006; Hastie, 2003; Kelly & Melograno, 2004; Lund & Kirk, 2002; Rink, 2010; Siedentop & Tannehill, 2000). Consequently, grades reflecting obedience to administrative rules as opposed to information concerning a student's competency produces controversy surrounding the meaningfulness and relevance of physical education. As a result, some school districts exclude physical education grades from the calculation of students' overall GPA, and some colleges do not consider physical education grades in formulas for admission (Young, 2011). When grading is not well exercised or documented, it entices not only hullabaloo but also lawsuits (Zirkel, 2007). Johnson (2008) noted that despite grades being a requirement in most secondary physical education programs, traditional grading practices have contributed to the perception that physical education is pointless and neither challenging nor rigorous. Johnson (2008) challenged physical educators to hold students accountable for the achievement of meaningful and defensible educational

outcomes. Yet, some secondary school physical educators worry that a more demanding grading system will depopulate elective physical education classes.

### **Matanin and Tannehill (1994) Research on Secondary Physical Educators Grading**

Physical educators have been shown to use multiple indicators to grade their students. Matanin and Tannehill (1994) investigated 11 secondary physical educators from 10 different high schools, perceptions of assessment, and their actual grading practices. The purpose of their study was to examine the accountability task structures related to systematic evaluation, formal assessment, and objective grading procedures. The research questions that directed their investigation were: (a) What physical education teachers' perceptions of the assessment process are and what role should assessment play in physical education? (b) What procedures were used in the student assessment process? Lastly (c) Did teachers' actions support their beliefs about the student assessment process? They designed a questionnaire to reveal the teacher's views of the assessment process and their grading process. The questionnaire consisted of three parts, Part 1 asked physical educators to provide the percentage of a student's grade from eight categories, knowledge, skill performance, fitness level, attendance, active participation, appropriate attire, and effort. Part 2 was a Likert-type attitude scale designed and pretested to collect data on teachers' opinions on the role of assessment in physical education. There were 18 items based on a 4-point continuum (strongly disagree, disagree, agree, strongly agree). Part 3 was an open-ended survey response that asked questions about the assessment process to help in understanding their role and perception of assessment. Additionally, the researchers requested the demographics and grading practices for each teacher in the final part of the questionnaire.

For validation purposes, information derived from relevant research was utilized to help formulate the questions. The authors sought a panel of experts to consult and verify that

information being collected were essential to the physical education assessment process. Subsequently, a pilot test was conducted, within which three high school physical educators (not included in the study) took the questionnaire. Two higher physical education teachers were also consulted with each teacher providing their insight. As a result, multiple changes were made to the original form of the questionnaire.

A measurement expert was seen to determine if the Likert-type attitude would suffice for the study. Then reliability was further gauged via a field test. In the field test, ten high school physical educators that were not a part of the study completed the questionnaire. Seven days later, the same educators completed the same survey. Then both questionnaires were analyzed to determine any inconsistencies. Cronbach's method decided whether each item was a factor in the measurement of the constructs. Any item with reliability below .80 was either eradicated or rephrased. A total of seven questions were removed from the study, with three being rephrased. The authors provided a copy of the questionnaire and additional details concerning its development in the technical manual.

The questionnaires were distributed to each physical educator in the second week of the fall grading period. The teachers were instructed to have the questionnaire completed by the second visit of the data collection team member. The first part of the questionnaire teacher percentages was compared to curriculum guides for inconsistencies. No inconsistencies were found.

In Part 2 of the questionnaire the mean score and standard deviation were calculated for each question. In Part 3 themes were organized (Lincoln & Guba, 1985). The demographic information was described and reviewed to provide information pertinent to teachers' grading practices.

The researchers executed five additional measures to interpret the assessment process: curriculum guides, rules, routines, and expectations instrument (RRE); direct observations; a group interview; and individual interviews. Data associated with student accountability, formal assessment/evaluation, and grading from the physical educator's unit were utilized to help provide insight and clarify the data interpreted on the questionnaire. This information, in addition to those from direct observations, the final meeting, and additional interviews, were analyzed through a convergence method (Stroot et al., 1994).

Direct observation occurred at various times throughout the semester, to better grasp the occurrences taking place at the classes. Group interviews provided a narrative account of the assessment issues prevalent in the course. The questions guiding the interview session stemmed from the responses from the questionnaire.

Seven purposes of grading were identified, but the physical educators reported their purpose of grading in high school primarily included: (a) to test student skill ability; (b) to test knowledge and skill activities; (c) to motivate students to appreciate physical activity; and to (d) measure participation in physical education. Despite that these four primary purposes were recorded; the teachers reported the actual procedures they used to grade their students: on average, 28% of the students' grade came from active participation, 16% from knowledge, 14% from skill performance, 12% from appropriate attire and 10% from attendance. Table 1 displays teachers' perceptions of the role of grading in High School Physical Education. Table 2 shows the percentages of student grades derived from each category.

Table 1

Teachers' Perceptions on the Role of Grading in High School Physical Education

No. of Teachers	Response
5	To test skill ability
4	To test knowledge of skill activities
3	To get students to appreciate physical activity-motivation
2	To measure participation
1	To gain importance in the total high school program
1	Feedback to students, parents, administrators, and the instructor
1	To encourage responsibility and citizenship

*Note.* From Matanin and Tannehill (1994), "Teachers' Perceptions on the Role of Grading in High School Physical Education".

Table 2

Percentages and Ranges of Student Grades Derived from Each Grading Category

Category	Mean %	Mode %	Range
Knowledge	16	20	0-50
Skill Performance	14	0	0-50
Fitness level	4	0	0-20
Attendance	10	0	0-43
Active Participation	28	20/50	0-50
Appropriate Attire	12	10	0-40
Effort	8	10	0-20
Behavior	8	10	0-30

*Note.* From Matanin and Tannehill (1994), "Percentages and Ranges of Student Grades Derived from Each Grading Category".

Due to appropriate attire and participation being stressed heavily towards students, there was little attention or explanation to students about skill assessment or student despite weighing approximately 30% of the student's grade. The investigation yielded that there were mixed feelings among the participants, and the contextual factor that most affected teachers' ability to assess formally was how their colleagues graded. That finding disputed with the results reported by Kneer (1986) and Veal (1988), suggesting that available time, overcrowded classes, and

outside responsibilities negatively impacted quality assessment. Furthermore, most of the physical educator's in the study perceived the assessment process negatively and viewed it as insignificant to their overall goals, as they placed more value on an enjoyable, relaxed, recreation-oriented classroom environment. This was concluded following a series of direct observation, and the teachers addressing their lack of concern with the assessment process in the interviews. In sum, the results show that the teachers regarded assessment as an informal process, grading students on attendance, dress, participation, and effort as opposed to a formal process involving knowledge and skills testing. These results reinforce prior literature suggesting that formal student assessment for grading is seldom conducted in high school physical education (Hensley et al., 1987; Imwold et al., 1982; Morrow, 1978). Table 3 consists of teachers' perceptions of assessment in physical education.

Table 3  
Teachers' Perceptions on Assessment in Physical Education

<b>Statement</b>	<b><i>M</i></b>	<b><i>SD</i></b>
I would feel comfortable justifying a student's grade.	4.00	0
I think the way I grade is extremely fair.	3.64	.48
Student effort is one of the most important factors in grading students.	3.27	.96
High school physical education should be assessed with a letter grade.	3.27	1.33
Keeping students active is more important than conducting assessment.	3.22	.83
Building physical education teachers are expected to grade similarly.	3.09	.77
Skills tests do not provide a good measure of student learning.	3.09	.90
Grading should be individualized for each student.	3.09	1.00
Frequent testing is impractical at the secondary level.	2.72	.91
Grading gets in the way of student enjoyment of physical activity.	2.09	.79
Assessment takes too much time.	2.00	.74
I view students' grades as a direction reflection of how well I am teaching.	2.00	.85
Assessment of students is not important in physical education.	1.82	.72
I have too many other responsibilities to conduct assessment.	1.73	.75
Physical education assessment is not as important as academic subjects.	1.64	.98
Administrators or parents often ask me to justify a student's grade.	1.64	1.15
Record keeping for grading purposes	1.45	.66

*Note.* Scale ranged from 1 to 4; high scores indicate more favorable attitudes.  
(From: Teachers' Perceptions on Assessment in Physical Education; Matanin & Tannehill, 1994)

## **Biddle and Goudas (1997) Research on Secondary Physical Educators Grading**

Biddle and Goudas's (1997) research grounded on the contemporary psychological approaches to attribution and emotion and highlighted three groups of pre- and in-service physical educators' inclinations for grading students based on effort and ability. The study consisted of three samples, with two being preservice, and one in-service. Group 1 (N = 90, 'primary students') consisted of third-year students from a four-year BA(ED) teacher education degree program at a university located I south-west of England. This group comprised of students who did not enroll in the PE specialist course, despite practicing this discipline as part of their curriculum. Group 2 (N = 16, 'PE option students') involved a third-year cohort who decided that PE would be part of their studies. Group 3 (N = 91; 'teachers') were secondary physical educators joining a residential in-service course. Each group entailed both male and female, and data was obtained through a questionnaire administered in a quiet classroom environment.

The questionnaire consisted of two sets of questions. In the first set, participants were asked, 'how much weight would you give the following if assigning grades in physical education. There were eight options (shown in table 4), and for each specific grading procedure, participants were required to select from a seven-point scale ranging from 'Very little' to 'Very much.' Then, the participants were asked to place their responses throughout the items and scale scores to ensure that participants did not rate the items as to importance.

The second group of sets focused on the participant's likings towards the students. They were given five pupils with unique characteristics, and each was rated on a seven-point scale grounded by 'I wouldn't prefer to work with this pupil' (1), and 'I would very much prefer to work with this pupil' (7). Overall, pre-service teachers and secondary physical educators favored

pupil progress and effort. Furthermore, physical fitness test performance comparisons were the least desirable grading approaches. Results in Table 4 entail the grading preferences for primary students and in-service secondary PE teachers.

Table 4

Grading preferences for primary students and in-service secondary PE teachers

<b>Grading Procedures</b>	<b>Primary</b>	<b>PE Option</b>	<b>Teachers</b>
How the pupil's performance compares to other pupils in the class	1.9	2.2	3.2
How hard the pupil tries	6.2	6.3	5.9
How much progress the pupil has made	6.2	5.8	6.1
How many skills the pupils has mastered	4.8	4.2	4.9
How the student behaves in class	4.3	4.1	4.4
Test scores on physical conditioning (fitness) tests	2.7	2.7	3.5
Scores on motor/sport skills tests	3.3	3.2	3.7

*Note.* From Biddle and Goudas (1997), "Grading preferences for primary students and in-service secondary PE teachers"

Table 5 consists of the results of five types of pupils with a synopsis of their effort, ability, and outcome. Overall, teachers in Table 5 favored pupils 3, 4, and 5 but did not prefer 1 and 2. Overall, effort and behavior were the primary grading areas in this investigation.

Table 5

Preferences in relation to pupils, expressed by primary students and in-service secondary PE teachers

<b>Teacher preference</b>	<b>Effort</b>	<b>Ability</b>	<b>Outcome</b>	<b>Primary</b>	<b>PE Option</b>	<b>Teachers</b>
Pupil 1: A pupil who does well in PE because s/he is good at sports although does not work hard	×	✓	✓	3.3	3.4	3.4
Pupil 2: A pupil who does not work hard and is not good at sports, so s/he does not do well in PE	×	×	×	2.3	3.1	2.4
Pupil 3: A pupil who works hard but s/he does do well in PE	✓	×	×	5.4	5.6	5.9
Pupil 4: A pupil who works hard and is good at sports, so s/he does well in PE	✓	✓	✓	5.8	6.0	6.7
Pupil 5: A pupil who is not good at sports but does well in PE because s/her hard	✓	×	✓	6.4	6.3	6.7

*Note.* High Scores indicate stronger preference.

(From: Preferences in relation to pupils, expressed by primary students and in-service secondary PE teachers; Biddle and Goudas, 1997)

**Chatzopoulos, et al., (2006) Research on Secondary Physical Educators Grading**

Chatzopoulos, et al.'s, (2006) study sought to determine the consistency among physical educators' espoused theories versus their actual practices concerning pupils. The study consisted of fifty-one physical educators who volunteered to participate. Every teacher was teaching 5th-6th-grade students (11-12 years old) in Greece for 5-23 years (10.41 ±4.02). Each participant was guaranteed confidentiality, and consent forms were obtained. As a special note, the students with the best grades participated in the national parade as flag-bearers, which in Greece is considered a significant accomplishment.

Chatzopoulos and Mouratidou (2004) findings of primary physical educators utilizing pupil's performance, effort, and behavior in the official grading criteria grounded this study. Pupil's performance entailed an assessment where the pupil was ranked concerning normative data (scores on a test). The pupil's effort consisted of subjective beliefs concerning how hard the pupil tried to better their performance. Effort, improvement, and participation were placed in the same category since each factor relates to each other. The pupil's behavior consisted of managerial elements like proper attire, punctuality, and following instruction. To detect espoused theories, teachers were asked to give a written report regarding the percentage (weight) that made up their grading criteria (Table 6).

Table 6  
Questionnaire for teachers' reports regarding the weight of the criteria

Grading Criteria	Percentage %
Performance	
Effort	
Behavior	
Total	100

*Note.* From Chatzopoulos et. al. (2006) "Questionnaire for teachers' reports regarding the weight of the criteria"

Test-retest reliability was determined by administering the survey on two occasions separated by 3-months for 18 physical education teachers. The intraclass correlation for pupil's performance, effort, and behavior and performance were .89, .83. and .92, respectively. To identify the actual grading practices of teachers, the researchers developed an instrument that comprises the eight pupils' scores regarding the grading criteria. The teachers were required to identify eight of their pupils matching the references in Table 7, and to provide grades for these individuals following the teaching period (trimester).

Table 7

Performance, effort, and behavior characteristics of pupils

Pupil	Grading Criteria			Mark
	Performance	Effort	Behavior	
1	80	Great	Good	
2	80	Great	Bad	
3	80	Little	Good	
4	80	Little	Bad	
5	20	Great	Good	
6	20	Great	Bad	
7	20	Little	Good	
8	20	Little	Bad	

*Note.* From Chatzopoulos et. al. (2006) "Performance, effort, and behavior characteristics of pupils"

The researchers calculated the weights of the criteria given in the total grade, utilizing the following operations: first summing up the grades of those pupils with good performance ( $P1 + P2 + P3 + P4 = PG$ , Performance Good) and subtracted the sum of marks, the poor performers received ( $P5 + P6 + P7 + P8 = PB$ , Performance Bad). The difference between PB and PG resulted in the Performance Weight ( $PW = PG - PB$ ).

The weight of effort and behavior were calculated similarly. For effort, the researchers summed up the grades of the pupils with great effort:  $P1 + P2 + P5 + P6 = \text{Effort Great (EG)}$  and summed marks of the pupils with little effort:  $P3 + P4 + P7 + P8 = \text{Effort Little (EL)}$ . Then  $EG - EL$  determined the weight effort.

Lastly, good behavior:  $P1 + P3 + P5 + P7 = \text{BG (Behavior Good)}$  and bad behavior:  $P2 + P4 + P6 + P8 = \text{BB (Behaviour Bad)}$ . Then subtracting the difference  $BG - BB$  to determine the weight. The criteria, thus, can be ranked according to the weight they possess.

The largest number of Performance Weight (PW), Effort Weight (EW), and Behavior Weight (BW) determined the criterion most important in grading. Test-retest reliability for 17 physical educators was established by administering the survey on two occasions a trimester apart. The intraclass reliability coefficients for performance, effort, and behavior weight were .90, .91, and .88, respectively.

Overall the results of the study suggest effort was the most pertinent grading criterion, ensued by class behavior and skill performance. However, according to the teachers' grading records, the performance was the heaviest weighted criterion, then effort and class behavior. These findings indicated that the teachers did not compute grades, as they reported (Table 8). Chatzopoulos et al. (2006) urged researchers to be caveat of solely using teachers' grade reports as the primary data source since they might not coincide with their actual practices.

Table 8

Weight of Criteria. Teachers written and grading practices.

Grading Criteria	Written Reports - Espoused Theories	Grading Practice - Theories-in-use
	<i>M ± SD</i>	<i>M ± SD</i>
Performance	25.10 ± 16.98	4.72 ± 1.89
Effort	45.49 ± 14.04	3.31 ± 1.44
Behavior	29.41 ± 10.98	3.19 ± 1.09

*Note.* From Chatzopoulos et. al. (2006) “Weight of Criteria. Teachers written and grading practices”

### **Svennberg et al., (2014) Research on Secondary Physical Educators Grading**

Svennberg et al.’s, (2014) study sought to explore the criteria physical education consider when grading. Their exploration sheds light on the verbalized criteria teachers consider essential when grading as opposed to the value they are given. Svennberg et al. (2014) called this situation a ‘gut feeling,’ within which the teacher internalizes the grading criteria but fail to verbalize the criteria. They utilized George Kelly’s Repertory Grid Technique, Kelly (1955) posited that one’s behavior could be comprehended in terms of personally constructed accounts of how the world operates, believing that: ‘Man looks at his world through transparent patterns or templates which he creates and then attempts to fit over the realities of which the world is composed’ (p. 8-9). As a result, these patterns provide one with the opportunity to predict their surroundings and proceed with their desired actions. Svennberg et al. (2014) cited Björklund’s (2008a) belief that these constructs are known as intuition or ‘gut feeling’ that serves as a standpoint to guide our actions.

Björklund (2008b) suggested that acquiring tacit knowledge of grading criteria is possible utilizing the repertory grading techniques. Svennberg et al. (2014) noted that this method helps map and find consistencies individually. This approach provides the respondents with the vocabulary necessary to formulate their constructs, without the interviewer intervening.

The study consisted of four Year 9 (the year when the final grades are awarded in compulsory school) physical education teachers, with two being male and female. One of each gender had extensive experience of grading, while the others had a few years of experience. The researchers required that all grades should be shown in the class they were instructing. Each

participant was informed of the research and was given pseudonyms as participation was voluntary. The repertory grid interview for each participant lasted for about 90 minutes and the meeting took place in a secluded area of their choice. The repertory grid technique consisted of the three steps, generating elements, comparing elements, and making constructs, and rating elements.

The first step involved teachers selecting eight of their students, two students who obtained the maximum grade possible (PSD), three students with a PD, and three students with a PE. The students were associated with their number, grade, and gender. For example, PSD1 denoted 'passed with special distinction, number one, female.' The researchers required the teachers not to pick students who were in the 'gray area' between two grades. This ensures that the teachers knew the students well, and they could unconsciously compare them to other students. The students would be placed into the columns in the grid.

The second step consisted of the interviewer assigning three students to the teacher; and, requested the teacher to highlight the similarities among two of the students and differences for the third concerning their grade. The narratives that entailed the similarities among the two students made up of one construct, and the narratives entailing the differences for the one student-led to the other construct. Svennberg et al. (2014) detailed an example of how these constructs would be organized in the grid: 'if two students were considered to strive to develop in contrast to the third who only does what she has to do, the construct is striving to develop - only does what she has to do' (p. 204). The individual constructs were inserted into a separate row into the grid, and the eight students were presented in various triads. The first triad consisted of all likely groupings until the teacher could not create any additional constructs.

In the final step, the teachers were required to rate the students on a five-point Likert-type scale for each construct they created in the grid. With one residing at the negative pole (doesn't care), and five residing at the positive pole (takes responsibility).

The data were analyzed by two researchers; they generated 86 constructs, with only two differing. After consulting the teachers, the two constructs were later categorized. Those constructs were later organized into four themes, motivation, knowledge and skills, self-confidence, and interaction with others. The data was analyzed quantitatively utilizing Web Grid 5, version 1.0, a software program developed a repertory Grid technique interview. Following the meeting, the teachers were asked to rate the importance of their own generated construct utilizing a five-point Likert-type scale. Then they linked it with the Pin Grid map. Lastly, the teachers were asked to provide the criteria they use for grading the class. The constructs were analyzed to determine any relationships. The researchers' followed up with the teachers six months later to discuss the analyses.

The results of the study indicate that the factors that the teachers consider relevant when grading has little impact on grades. The themes: motivation, self-confidence, and interaction with others are associated with non-achievement factors and were not present in the grading criteria. Knowledge and skills were associated closest to the grading criteria. Overall, these constructs do not reflect the learning outcomes in the grading criteria. Svennberg et al. (2014) investigation confirm the findings of Brookhart (1994) and Stiggins et al., (1986), that teachers grading reflects classroom realities that are not addressed in the grading criteria. For example, the classroom environment emphasizes that regardless of skill level, students are expected to display appropriate behavior. This could be the reason why teachers give a cooperation value in grading even if it is not present in the official grading criteria.

## **ECOLOGICAL SYSTEMS THEORY**

Urie Bronfenbrenner's Ecological Systems framework (Bronfenbrenner, 1977, 1979) underlines the intricacy of the individual's socio-cultural world and the many influences that affect one's growth and development. The Ecological Systems framework (1979) started with Bronfenbrenner labeling his evolving theory as an ecological approach to human development (1974, 1975, 1977a). Then an ecological model of human development (1976, 1978, 1979b), later denoting it as a science (1977c) and later a theoretical standpoint (1979b). In Bronfenbrenner's (1979b) framework he defined human development as: 'the process through which the growing person acquires a more extended differentiated, and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content (p. 27).' Bronfenbrenner's framework was a response to the limitations in lab-based research (1973, 1974, 1975, 1976, 1977c, 1979a, 1979b), and the difficulties in public policies pertinent to children, and their families (1973, 1974, 1975, 1977a, 1979a, 1979b). He posited that research should be carried out in the environment that is most natural to the child (e.g., home, school, neighborhood) as well as individuals familiar with the child (1973, 1977c, 1979b). However, lab-based research is typically carried out in a different background with a researcher external to the child (1973, 1977a), and Bronfenbrenner challenged the validity of these results (1973, 1979b). During situations when research takes place in settings in which children reside, Bronfenbrenner believed that there was too much emphasis on the subject rather than the context (1975, 1977a, 1979b).

Bronfenbrenner (1977c) theorized that the ecology of human development is the developing, communal adaptations among the individual and the altering environment.

Moreover, Bronfenbrenner (1977c) noted that the myriad of influences stems from proximal and distal settings. Bronfenbrenner adapted Brim's (1975) terminology of the ecological environment as "conceived topologically as a nested arrangement of structures, each contained within the next" (Bronfenbrenner 1977c, p.514). It considers the individual as situated within a complex system of relationships among four nested environments (microsystem, mesosystem, exosystem, and macrosystem).

### **Microsystem**

Bronfenbrenner (1977c) defined the microsystem "the complex of relations between the developing person and the environment in an immediate setting containing that person (e.g., home, school, workplace, etc.)" (p. 514). Bronfenbrenner suggested that the critical term of the microsystem is *experienced*, which entails how an individual perceives the objective properties of an environment. Moreover, the factors of *activity*, *role*, and *interpersonal relation* constitute the elements, or building blocks, of the microsystem (1979c).

Bronfenbrenner (1977c) developed four propositions to consider when investigating interactions among the individual and the organism. Proposition 1: "In contrast to the traditional unidirectional research model typically employed in the laboratory, an ecological experiment must allow for the reciprocal processes; that is, not only the effect of A on B, but also the effect of B on A. This is the requirement of reciprocity (p. 519)." He established that the relations within one's microsystem are multi-directional and reciprocal, and one should view the negotiations among the stimulus and response.

Proposition 2: "An ecological experiment requires recognition of the social system actually operative in the research setting. This system will typically involve all of the participants present, not excluding the experimenter. This is the requirement of recognizing the totality of the

functional social system in the setting (p. 520).” Bronfenbrenner (1977c) posited that researchers that consider the activities of more than two persons in differing roles, the behavior of each is typically analyzed independently. Bronfenbrenner alluded to the Case Western Reserve University experiments, which reflect the limited two-person paradigm of research (Experimenter and Researcher). Nevertheless, proposition two urged researchers to consider multiple systems within the immediate environment, including the experimenter.

Proposition 3: ‘In contrast to the conventional dyadic research model, which is limited to assessing the direct effect of two agents on each other, the design of an ecological experiment must take into account the existence in the settings that include more than two persons ( $N + 2$  systems). Such larger systems must be analyzed in all possible subsystems (i.e., dyads, triads, etc.) and the potential second and higher-order effects associated with them (p. 520).’ This proposition serves as an extension from proposition 2, and as one moves beyond the dyad, subsequent structures may offer opportunities for greater stability, mutual assistance, and complementarity. Such structures raise discussions concerning the optimal size and form of systems fostering human development (Bronfenbrenner, 1977c). He cited (Lewin, 1935) conceptual to support this proposition, within which a mother’s behavior influences the interaction between a father and a child. Bronfenbrenner (1977c) would refer to this indirect influence as a second-order effect.

Proposition 4: ‘Ecological experiments must take into account aspects of the physical environment as possible indirect influences on social processes taking place within the setting (p. 523). Bronfenbrenner noted that the environmental impacts on development are not just limited to human beings, and it is imperative to consider the possibility of higher effects operating indirectly on the organism (Bronfenbrenner, 1977c). He cited Cohen, Glass, and Singer’s (1973)

ecological study of the influence of apartment noise on human development. The investigation yielded that children living on the lower floors of 32-story buildings near noisy traffic showed greater impairment of auditory discrimination and reading achievement than a similar sample residing in higher level apartments. Bronfenbrenner discovered from Cohen et al. (1973) investigation that no data are present to demonstrate or disconfirm the existence of such a second-order effect; yet, pertinent information was readily available had the other participants in setting been included in the research design.

Moreover, Bronfenbrenner alluded to Maccoby's (1951) study concerning the impact television has on family social life. The study found that 78% of respondents indicated no conversation took place during viewing, except at specified times like commercials, and that 60% reported that no activity was engaged while watching. From Maccoby's (1951) study, Bronfenbrenner questioned how the resulting change in family patterns impact the behavior and development of children (i.e., the second-order effect) remains unexplored.

**Mesosystem.** The mesosystem is the "interrelations among major settings containing the developing person at a particular point in his or her life" (Bronfenbrenner 1977c, p.515). Bronfenbrenner (2005) recommended that there must be linkage and processes occurring between two or more settings within which the individual is separate from one context. Bronfenbrenner (1977c) developed three propositions to consider when investigating relations between environments.

Proposition 5: 'In the traditional research model, behavior and development are investigated in one setting at a time without regard to possible interdependencies between settings. An ecological approach invites consideration of the joint impact of two or more settings or their elements. This is the requirement, wherever possible, of analyzing interactions between

settings (p. 523).’ The first proposition advised researchers to devote their attention to the importance of investigating joint effects and interactions between settings (e.g., home and school, family and children’s peer group, the peer group and the school, etc.) and thereby highlights the possibility that events in one milieu may influence the subjects behavior and development in another (Bronfenbrenner, 1977c). Bronfenbrenner cited Scarr-Salapatek and William’s (1973) investigation of babies born prematurely from severely deprived socioeconomic backgrounds. Bronfenbrenner mentioned how Scarr-Salapatek adheres to the traditional method of research, and how that the study did not consider the participants in four different roles: The *infant* appears in both settings, the *nurse* only at the hospital, and the *mother* and *social worker* primarily at home. Hence, no systematic data were collected about the infants’ immediate response to the stimulus, nor about the participants’ interactions with and perceptions of each other (Bronfenbrenner, 1977c).

Proposition 6: The design of the ecological experiment involving the same person in more than one setting should take into account the possible subsystems, and associated higher order effects, that or could exist, across settings (p. 525). Bronfenbrenner emphasized the role of ecological transitions in guiding and cultivating the course of human development. He again referred to Scarr-Salapatek and William’s (1973) study that shows the subject matriculating through successive shifts in role and setting throughout one’s lifespan. For instance, a mother is presented with her newborn infant for the first time (Klaus et al., 1970), the baby returns home from the hospital (Scarr-Salapatek & Williams, 1973), or the child is promoted to the next grade in school (Seaver, 1973). Bronfenbrenner (1977a) provided a scenario to illustrate his claim: ‘It is not difficult to think of other situations along the same line: the arrival of a sibling; entering a day care center; the move from preschool to school; getting a new teacher; going to camp,

graduations; “dropping out”; finding one’s first job, changing jobs; losing a job, marriage; becoming pregnant; having relatives move in (and out again); buying one’s first family TV set. car or home, vacations; travel; moving; divorce; re-marriage; changing careers; emigrating; or, to return to the more universal, becoming sick; going to the hospital; getting well again; returning to the work; and the final experience to which there are *no exceptions - death*’ (p. 525).

Proposition 7: ‘A fruitful context for developmental context research is provided by the ecological transitions that periodically occur in a person’s life. These transitions include changes in role and setting as a function of the persons maturation, or of the events in the life cycle of others responsible for his or her care and development. Such Shifts are to be conceived and analyzed as changes in ecological systems rather than solely within individuals. These transitions are not limited to the early years but recur, in various forms, throughout the life of the person. Hence, the ecology of human development must incorporate a lifespan perspective if it is to do justice to the phenomena within its purview’ (p. 526). Bronfenbrenner (1977c) noted that the ecological transitions occurring within one’s, and surrounding others within an environment remains unexplored. Bronfenbrenner cited Thomas and Znaniecki (1927), *The Polish Peasant in Europe and America*, analysis for one to consider the cultural transitions influencing an individual along with others in the environment. Additionally, he cited Elder’s (1974) longitudinal research on *Children of the Great Depression*, which presents implications on beings transitioning through varying degrees of financial stress.

**Exosystem.** The exosystem is, “an extension of the mesosystem embracing other specific social structures, both formal and informal, that do not themselves contain the developing person, but impinge upon or encompass the immediate settings in which that person is found, and thereby influence, delimit, or even determine what goes on there” (Bronfenbrenner 1977,

p.515). The social structures consist of the major institutions of the society and are both consciously arranged and consistently evolving and function at a distinct local level (Bronfenbrenner, 1979b). These structures comprise the world of work, the neighborhood, the mass media, agencies of government (local, state, and national), distribution of goods and services, communication and transportation facilities, and informal social networks. Bronfenbrenner (1977c) found, there have been minimal investigations of exosystem effects on developmental, and scholars are indeed on terra incognita so far on systematic research. Bronfenbrenner (1977c) developed one proposition to consider when investigating relations between settings.

Proposition 8: 'Research on the ecology of human development requires investigations that go beyond the immediate setting containing person to examine the larger contexts, both formal and informal, that affects events within the immediate setting' (p. 527). Bronfenbrenner cited several research examples that adhere to other principles.

First, the study of Giovannoni and Billingsley (1970) pursued to classify the environmental conditions linked with the parents' behavior toward the child. The presence of inadequate housing and the absence of a telephone influence the existence of a functional kinship network, as well as church attendance. Giovannoni and Billingsley (1970) concluded that 'among low-income people, neglect would seem to be a social problem that is as much manifestation as it is of any individual's parent's pathology' (p. 204).

Garbarino (1976) followed up with their 1970 study by providing correlational data of child-abuse reports and socioeconomic and demographic investigation for the 58 counties of New York State. Garbarino stated, 'A substantial proportion of the variance rates of child abuse/maltreatment among New York State counties (three samples) was found to be associated

with the degree to which mothers do not possess adequate support systems for parenting and are subjected to economic stress' (p. 185).

**Macrosystem.** Bronfenbrenner alluded to Scarr-Salapatek and Williams's (1973) investigation when inquiring about the long-range effects of their intervention. Williams and Scarr-Salapatek report yielded that, "A long term follow-up of infant development in the E group would be very desirable to see if the initial gains were maintained through the second year. Unfortunately, the shortage of federal funds has closed the High-Risk Clinic so that pediatric care and psychometric evaluations are no longer available to the low birth weight group" (p. 100). The conclusion of this investigation led Bronfenbrenner to develop the macrosystem level, which examines institutions and associated ideologies that infiltrate society. The macrosystem is "the overarching in- situational patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which micro-, meso-, and exosystem are the concrete manifestations" (Bronfenbrenner, 1979 p.515). The macrosystem does not involve direct contexts influencing the life of an individual, but to general prototypes existing in the culture or subculture (Bronfenbrenner, 1979). The macrosystem is the national and cultural decrees, laws, and rules of society.

Bronfenbrenner (1977c) noted that there are two considerations for investigating the overarching institutional and ideological patterns of the culture or subculture as they affect human development. First, one must compare different cultures on the same psychological variable to determine how individuals within cultures differ on psychological variables of interests. This approach is also known as a cross-cultural study and is the most common form of this investigation. A limitation of this approach is that much of this research specifically focuses on the characteristics of the individual as opposed to the social contexts they reside. As a result,

little emphasis will be placed on the process of accommodation between the person and the environment.

The second consideration in investigating the impact of the macrosystem is provided by the secular changes that primarily alter the nature of society. However, such naturalistic studies possess the disadvantage of being restricted in macrosystems that presently or have occurred in the past. Bronfenbrenner quoted Professor A. N. Leontiev of the University of Moscow, “It seems to me that American researchers are constantly seeking to explain how the child came to be what he is; we in the USSR are striving not how the child came to be what he is, but how he can become what he not yet is” (p.528). Bronfenbrenner posited that Leontiev’s statement is reminiscent of Dearborn’s injunction (“If you want to understand something try to change it”). Likewise, Leontiev’s view is known as the ‘transforming experiment’, within which the experimenter radically restructures the environment, so that the individual produces a new configuration that reveals unrealized behavioral potentials. However, Bronfenbrenner (1977c) stated that “transforming experiments in the real world are equally rare in American research on human development... Thus, we study social-class differences in development, ethnic differences, rural and urban differences or, at the next level down, children from one versus two parent homes, large versus small families - as if the nature of these structures, and their developmental consequences, were eternally fixed and unalterable, except, perhaps, by violent revolution. We loathe to experiment with new social forms as contexts for realizing human potential. After all, we say, you can’t change human nature. This precept underlies our national stance on social policy and much of our science in human development as well” (p. 528). Bronfenbrenner developed his final and most demanding proposition defining the nature and scope of ecological experiments.

Proposition 9: ‘Research on the ecology of human development should include experiments involving the innovative restructuring of prevailing ecological systems in ways that depart from existing institutional ideologies and structures by redefining roles, and activities, and providing interconnections between systems previously isolated from each other’ (p. 528). Bronfenbrenner noted the investigations of Klaus et al. and Williams and Scar-Salapatek are a standpoint of investigators utilizing unorthodox innovations. The former dishonored hospital practice by permitting mothers to have direct and prolonged contact with their newborn infants. The latter, in effect, assumed to treat premature infants from disadvantaged low-income families as if they were full-term offspring from middle-class homes. Furthermore, he alluded to Skeels’ (1966), and Sherif et al. (1961) investigations as examples of ‘transforming’s.’ Skeels’ study, removed children diagnosed as mentally retarded from an orphanage and placed them in the care of mentally disabled adult females in a hospital ward. As a result, children displayed increases in their IQ and were eventually adopted. They soon led productive lives as workers and family members. Sherif’s et al. (1961) study altered the structure of activities and social organizations among 11-year-old boys, which first evoked high levels of aggression and subsequently transformed the same boys into friendly, cooperative, altruistic citizens. Although transforming experiments are scarce, Bronfenbrenner (1977) posed four recommendations that could be carried out within the framework of systematic research design:

1. Introduce a “curriculum for caring” in the schools, from the elementary level on, in which students, under supervision, provide substitute care for children of working mothers, assist families in emergencies, visit the old, the sick and the lonely, etc. Existing curriculum variations could provide ready-made controls (p.529).

2. Facilitate the transition of children from home to school by acquainting family members and school personnel with each other and by engaging them in joint activities in both school and home settings, as well as on “neutral ground,” a year or more before the child enters school (p. 529).

3. Expand contemporary experiments on income maintenance (e.g., Morrill, 1974) to include assessment not only of the family’s economic behavior but parent-child activities and relations as well (p. 529).

4. Induce a business enterprise to introduce flexible work schedules for families with children, enabling the parents to be at home when youngsters return from school, fall ill, etc. (p. 529).

### **ECOLOGICAL SYSTEMS FRAMEWORK AS A LENS**

Bronfenbrenner’s Ecological Systems framework could be utilized as a lens to examine how the relations within an educator’s context influences their grading practices. The ecological systems framework examines the entire context the individual resides in and the myriad of influences that inspires an individual’s behavior. There has been a growing body of literature within education that applied the Ecological Systems framework to illuminate educator’s behaviors and experiences and how they are situated and profoundly impacted by several environments. Such as Cross and Hong’s (2012) research on how core subject area teachers’ internal psychological characteristics negotiate with external environments to produce emotions. Sean Smith et al. (2017) analysis’ on how math educator creates and react to opportunities to lead. Rose and Rogers (2012) investigation on student teachers’ perspectives on final teaching practice in early childhood classrooms, and Hannaway et al. (2014) study on exosystemic factors on black student teachers’ perceptions and experience of early childhood education. Cross and

Hong (2012) posited that Bronfenbrenner Ecological Systems to be a useful framework for examining the immediate and distal environments in which teachers reside. The Ecological Systems Theory (EST) is a scientific study of the altering properties of the ecological environment as well as the associations between them that inspires an individual cognitive process. Bronfenbrenner stated, “the conception of the environment implicit in the preceding definition is considerably broader and more differentiated than that found in psychology in general and developmental psychology in particular” (Bronfenbrenner, 1977 p.514).

Bronfenbrenner (1977, 1979) suggested that culture and society offer expectations for how social settings are structured. It considers the individual as situated within a complex system of relationships among four nested environments (microsystem, mesosystem, exosystem, macrosystem) located on a continuum from near to far distances relative to the individual.

### **Directional Hypothesis**

There are two possible occurrences in this investigation:

- 1.) The total school environment will encourage physical educators to grade objectively.
- 2.) The total school environment will discourage physical educators to grade objectively.

## CHAPTER III: METHODS

In this chapter I will introduce the participants, data collection instruments, and data analysis in which I answered both research questions for this study. The research questions were: (1) What are physical educators' uses of grading? (2) How does the total school environment influence grading outcomes in physical education?

### **Human Subjects Approval**

Approval was requested from Auburn University Institutional Review Board for Research Involving Human Subjects (IRB) prior to recruitment for this study. The expedited research protocol submission (20-137 EP 2003) was approved for use from 03/10/2020 to --/--/-- as per the regulations and protocol outlined by the IRB (Appendix A).

### **Participants**

To investigate the extent of how the total school environment influences physical educator's grading outcomes, the participants for this study include state-licensed secondary physical educators that currently teach or have taught secondary physical education within the last five years. The exclusion criteria for this study are non-certified instructional personnel, temporary or substitute physical education teachers, as well as primary physical education teachers. All survey participants hailed from the United States, regardless of location. Those that only participated in the interview were from the South East, South West, and North East United States. Secondary physical education teachers ( $N = 15$ ) correctly completed the survey, with ( $N = 7$ ) participants interviewing. Following the conclusion of the member checking process, participants provided pseudonyms to ensure their confidentiality. Given (2008) stated that a pseudonym is a fictional name given to provide anonymity to a person, group, or place. Furthermore, many ethical codes outline the significance of privacy and discretion, and

researchers regularly employ pseudonyms to achieve this goal. The recruitment of participants consisted of emailing prospective physical educators across the country. Emails were accessed via school district websites or requested via the PE Central physical education groups on Facebook. The participants who were interested in participating provided their email. Then an invitation was sent to them along with the link of the IRB statement.

### **Data Collection**

The study employed a mixed-methods research design that quantitatively reported the grading procedures from the survey participants. Then qualitatively addressed how the total school environment influenced those procedures for a select group of individuals. The mixed-method design combines the qualitative and quantitative approaches to collect and analyze data (Creswell & Tashakkori, 2007). According to Teddlie and Tashakkori (2009), there are four types of mixed method research designs: 1) triangulation, 2) embedded, 3) explanatory, and 4) exploratory. The explanatory mixed-method design was selected to help the researcher answer their research questions. The use of the explanatory model involves gathering quantitative findings succeeded by qualitative data collection. The objective of this method is that the qualitative findings illuminate or further detail the quantitative results (Creswell, Plano Clark, et al., 2003). Morse (1991) suggested that this design may bode well within which a researcher necessitates qualitative data to extrapolate significant or non-significant results, outlier results, or surprising results. The survey data would highlight the grading procedures, and the qualitative findings would illuminate the role the total school environment plays in the formulation of a physical educators' official grading criteria. The procedure begins with the collection and analysis of quantitative data. Then, the first phase is followed by the subsequent collection and analysis of the qualitative data so that it succeeds or connects to the quantitative phase results.

The objective of this method is to obtain a clearer picture from the quantitative data, and then utilize the qualitative findings illuminate the study in question.

Creswell and Clark (2006) proposed that there are two variants of the explanatory design: the follow-up explanations model and the participant selection model. Although both approaches begin with quantitative research followed by a qualitative analysis, one focuses more on the results and the other homes in on appropriate participant selection. The follow-up explanation model was implemented to prevent the researcher from imparting any bias from the literature. The researcher wanted to remain partial to the possibility of any outlier data. Aldridge et al. 's (1999) investigation of classroom environments is an example of an explanatory design. They started with a quantitative survey study and then conducted a qualitative study to describe why the results took place.

The investigation utilized Matanin and Tannehill's (1994) Percentages and Ranges of Student Grades open-ended survey to address question one. The survey sought to understand the grading practices of physical educators. Matanin and Tannehill's (1994) survey presented information concerning the numerous outcomes physical educators' may consider when grading their students, thus providing the investigation with the appropriate variables. The survey elements were Knowledge, Skill Performance, Fitness Level, Attendance, Active Participation, Appropriate Attire, Effort, Behavior, and Other. The participants selected the outcomes they used in their most recent grading period summing to 100 percent. The end of the survey included questions concerning their professional profile (education, years of experience, subjects taught, certification) and personal demographics about the participant (age, sex, race, location). The survey was administered electronically via Auburn University Qualtrics database.

Following the administration of the survey, the primary investigator conducted semi-structured interviews to address research question two. The selection of interview participants took place through convenience sampling. The primary investigator data collection timeline was as follows: Mid Spring 2020 semester - Participants complete surveys and participate in interviews; Summer 2020 - All data (survey, interviews) were analyzed. The survey was analyzed quantitatively while the interview data were analyzed qualitatively. Due to the participant recruitment and data collection timeline lasting only six weeks, the researcher selected interview participants on a first come first serve basis. Interview questions consisted of prior ecological examination findings from educators and students; as well as, selected physical education literature that postulated how specific stakeholders within a school environment influences grades. The microsystem questions were Cross and Hong's (2012) findings that deal with how students, parents, colleagues, and administrators influence educators. Johnson (2008) also believed that similar microsystem elements impact a physical educator's grading practice. The mesosystem is merely linking among one's microsystem. Next Cross and Hong's (2012) research cited, Parent-Teacher organizations, parents places of work, school board, governmental agencies as essential elements influencing the work of teacher's; as well as finance (Hannaway, 2013); school location (Paat, 2013); school administration, and district administration (Smith et al., 2016). The macrosystem questions emphasized the cultural background and sociocultural context (Cross & Hong, 2012). Lastly, perspectives of policy and pe programming (Kiley & Robinson, 2016). The qualitative aspect provided insight concerning how the total school environment influenced participants grading outcomes. Interviews occurred upon completion of the Qualtrics survey, and participants willing to participate were self-identified. Each interview took place in room 154 of the Kinesiology Building via Zoom. Overall, the interviews lasted

between 30-75 minutes, and all interviews on a recording device not connected to the internet. See Appendix for the interview guide.

### **Data Analysis**

The survey data analysis entailed the mean percentages and ranges. Each interview was audio-recorded and transcribed verbatim. The qualitative data were analyzed deductively by the primary investigator by reducing the extensive text into core themes. The themes derived from instances where the participants cited an element within their ecological environment that influences their grading outcomes. To augment the trustworthiness of the data sources, a member checking analysis was conducted. The researchers sent participants individual summaries of their specific findings to ensure their narratives were consistent with the themes developed deductively to authorize their viewpoints of the data analysis.

## CHAPTER IV FINDINGS

The purposes of this study were (1) to discover the espoused grading outcomes of physical educators, and (2) examine how the external environment influences their grading outcomes. In this chapter, the reported outcomes are presented within a mean percentage and range table. Lastly, the influence of the total school environment on physical educators grading outcomes are presented through a qualitative interview analysis.

### **RQ 1.** What are physical educators' uses of grading?

Teachers reported an average of 27% of students' grades come from active participation. Like Matanin and Tannehill's (1994) investigation of 11 physical educators in a specified district, active participation also boasted their highest average. Only 2% of grades were determined by student fitness levels. Table 9 shows the mean percentage and range for all teachers' responses.

Table 9

Percentages and Ranges of Student Grades derived From Each Grading Category

Category	Mean %	Range
Active Participation	27	0 - 100
Skill Performance	15	0 - 80
Attendance	15	0 - 50
Appropriate Attire	13	0 - 75
Knowledge	8	0 - 20
Effort	8	0 - 20
Behavior	5	0 - 25
Fitness Level	2	0 - 10
Other	7	0 - 100

## **RQ 2. How does the total school environment influence grading outcomes in physical education?**

### *Microsystem*

Two of our participant grading outcomes were influenced by the interaction with two groups (students and school administration). Joshua almost has sole autonomy, with his interactions from both student's and administration collectively influencing his official grading criteria. Naomi has sole authority to grade where she sees fit, and the support of her school's administration plays a role in her official grading criteria.

**Joshua Teacher-Student Interaction.** Joshua a ninth-year physical education teacher currently teaches at a school in the North East United States. Eighty percent of his grading outcomes are a result of the negotiations individually with the perceived expectations of students.

The way that we have in our school is we grade the kids based off of their participation. So, we have 40% for participation. We try to base 40% on preparation. So, coming to class, then phys ed attire, we have a school shirt, and then sweatpants, you know, shorts sneakers, we don't want kids coming in crocks, boots, uggs, things like that.

Joshua addressed his desire for students to be appropriately dressed in his class. Appropriate dress served as motivation to hold his students accountable to wear the appropriate attire. When it comes to student participation, Joshua catered his expectations to the reality of his student attendance being a significant issue. He desired to create an environment that allows students to enjoy physical activity. Joshua believed his students want to have fun, and students "cutting" class suggested that his students are not interested in his physical education program. He believed his student behaviors are also prominent in other core subject areas like 'math.' He utilized his physical education class to adhere to what he believes the students' needs are.

Furthermore, Joshua emphasized that participation would encourage student motivation. On the contrary, Joshua perceived that emphasizing objective measures in the psychomotor and cognitive domains of learning would discourage student motivation. He believed those objectives would inspire students to 'cut' or skip his class.

Sadly, we have a very hard time with attendance. We have these issues year in year out it doesn't matter where you are (school district). I can be hard on cognitive work and make the kids learn about what's a basketball, baseball, or throwing, catching. But at the end of the day, those kids are gonna do exactly the same in my class, they will math class, they're gonna cut. I can do the same thing when it comes to psychomotor, we can you work on the skills, improve the skills, those kids, if they're not looking to improve, they're very tough because they could care less. It is all about enjoyment. So, if I make it so that the kids want to come to my class because they know that they're safe, they're having a good time, and, feel comfortable in the environment. At the end of the day, I have them, they're going to learn one way or another, just being there is half the battle.

However, Joshua was aware of the recommended practices concerning assessment and grading, yet he preferred to keep it realistic within his setting. In the past, Mathew has made a concerted effort to better himself and is mindful of the ongoing trends in physical education.

I've tried for years you know, to better myself. I've done some professional development. Yeah. So, work again. At the end of the day, every professional development is open choose. So, some of them are great. Some of them are realistic some you know, oh, my administration is perfect. Okay, I'm glad oh my population of students are perfect they do everything I say. That's great. I would love that. That's not for me.

Joshua understood the nature of student behaviors in his work environment. His emphasis on appropriate attire and attendance encouraged him not to grade student objectively. The relations between Joshua, and his students influenced 80 percent of his official grading criteria.

**Joshua Teacher - Administration Interaction.** Nevertheless, his administration instructed their teachers to utilize their state standards to document student learning. The administration felt the need to reflect the standards set by the state. Ultimately, he followed orders from administration, while still having room to navigate his preferences concerning

student achievement. Overall, Joshua's grading outcomes are a result of his student classroom situation and expectations from the state standards enforced by his administration.

We created them with our admin... our principals and two assistant principals. It's usually 50/50 they'll approach you with this is what we need this is what we want to see this it is what we're expecting... Then we will approach it with this kind of scenario, as you know, you're working as a team, but at the same time you're doing that you're told.

Through these relations, he discussed the shifting of their outcomes since his inception at his school. The administration required Joshua to utilize 20 percent of his official grading criteria (effort, cognitive) in his official grading criteria. Joshua provided his perspective concerning the administration's stance towards the grading protocol.

So, we originally had 50% participation 50% preparation, and they told us they would like at least 10% 20% other areas. So, we included 10 percent for effort and 10 percent for cognitive. So, this kind of scenario, as you know, you're working as a team, but at the same time you're doing that you're told. So, they're all about viewing it from the state standards. So, they just want our grading policies to align state standards. So, when we follow the state standards, they they're fine with it.

However, Joshua responded, that their standards do mesh with the realities of his classroom. "That's great. That's a little pie in the sky. This is what's more realistic."

Joshua deemed those expectations as lofty and unattainable despite the administration's stance on reflecting grading outcomes prescribed by the state. Furthermore, the standards given to him are not conducive to Physical Education as they were initially intended for English. Still trying to follow orders, he integrated cognitive measures within his lesson within the sport's nature to get the job done. However, his administration ordered him to follow the guidelines in its exact language and provide evidence that students are achieving those measures.

I mean, for example, I mean, they're not impossible, but it's just that they are a little ridiculous. Our standards were designed for English for writing standards... They just have to self-assess themselves and talk to their friends at the end of the period

of how well you did. They want to have us to the kids written assessments if they aren't prepared. Whereas the way I was always using sports picking kids to use them as a score keeper. You involve them in other ways. And this way, they're saying no, don't involve them. Instead, we're going to use this as give them room work. When the kids are already stressed out enough that they're working every single class.

Joshua desired his outcomes to be conducive to student expectations of physical education. Ultimately, he is concerned that implementing the standards enforced by the administration within his official grading criteria will discourage student motivation. He preferred to allocate as much time for students to participate as possible, believing it would better serve the students. However, the administration directed Joshua to follow the state's guidelines.

So, when the teachers say like sit down, we're going to go to the rules. They're like, ah, damn it. We try to make cognitive as much as we can, but, you know, we tell the kids we're stressed out just as much they are when we have to spend two or three periods in a week going over have properly rotate in a volleyball game...They'll (administration) be like, no, what you should do is stop the class, reassess. Talk to him about the question that the one you had and directed towards that and then move on. And I'm like, that's great. But you know, the kids only have 30 minutes of gameplay that's taken away from our game...It takes away from the kids because then the kids will really want play.

Joshua and the school's administration's interactions influenced the remaining 20% of his official grading criteria. The school's administration negotiated with Joshua to incorporate their state guidelines in his official grading criteria.

***Naomi Teacher-Administration Interaction.*** Naomi a third-year secondary physical education teacher in the South East United States beliefs concerning participation being an outcome in student learning were inspired by her childhood experiences in physical education. Being labeled as a 'try-hard' inspired her, and she believed that participation was a motivator to inspire her students to be physical active.

I value participation more than anything... I'm just saying, I value participation more than anything just because I mean our job is to give them physical activity and if I don't do it, then I'm not really doing my job... Honestly, I feel like that's

kind of how you have to grade these kids...When I was a kid I enjoyed participating...I was never that kid that just sat there and did nothing, like I enjoyed PE...I was what the kids call a try hard...Getting outside and playing with these kids now is a little more difficult. Like I have to be like, hey, Let's go walk like participate...So, like I grade based off of participation.

Her administration only required documentation of lesson plans completed a week and a half in advance. Otherwise, they granted Naomi autonomy to operate her class within her best interests. Naomi felt that her administrators agreed with her beliefs concerning participation. Along with the support from administration they work together to encourage student participation. "They want us to have like, I guess week to a week and a half like lesson plan... In regard to participation, sometimes they come in and play with the kids... Yeah, they're pretty supportive... As long as we're doing a weeklong lesson, we feed off of each other."

Naomi possessed the authority to grade students where she saw fit. Furthermore, she perceived that the administration supports her vision by actively engaging with the students in her class. Those interactions influenced her official grading criteria.

### **Mesosystem**

The mesosystem connects two or more microsystems. The relationship between colleagues (microsystem) and administrators (microsystem) constituted the mesosystem for Rachel which influenced her grading criterion.

**Rachel Administration-Colleagues Interaction.** Rachel taught one year of physical education in the last five years. Also, she participated in her school's mentorship initiated by the school's administration. Administration required teachers with experience to mentor incoming teachers. Rachel's mentor was her work colleague, who taught physical education for 31 years in the school. Rachel discussed how that program influenced her grading outcomes.

They had a mentorship program... He was the gentleman (mentor) that I taught with and he was in his 31st year of teaching went during my first, so there was a big

difference. So, he was the one relaying the procedure to me. He said it came from the administration. I don't know maybe it came from him, but administration wanted us to be on the same page.

Despite Rachel not knowing who decided the grading outcomes, the administration did require both teachers to practice the same grading procedures. Rachel's mentor claimed that these expectations came from the school's administration; however, she took that assertion with a grain of salt. Ultimately the common denominator in this situation is that both Rachel and her colleague had to be on the same page. Rachel's staff told her that her opportunity would come upon the retirement of her colleague. Therefore, Rachel's mentor was the next person in the chain of command, followed by the administration.

He was more of like the middleman I would say between admin and me sometimes...There were times where I did talk to my admin about like, hey, I want to implement new things. Is that something that you would support? And I was essentially told that my co teacher was retiring in about five years and that maybe wait until then to implement some new things.

These relations led to her official grading criteria. "I grade my students on a five-point grade... So, dressing appropriately was the grade. Attendance, so being there. They got they got points for their participation, behavior and then one point for skill." At the time Rachel did not challenge nor support those outcomes. However, she acknowledged that she did not have any sort of approach when it came to evaluating students in physical education.

And at that point I didn't really I didn't really question it. The only thing I questioned that I did not like that was kind of sent down from my administration." I didn't really have a philosophy teaching physical education in general. You know, I came, I was a first-year teacher and I was excited and had all these fresh new ideas.

Her stance changed while furthering her education at a Southeastern Kinesiology Doctoral Program. Rachel later developed the knowledge necessary to employ objective

measures of grading to appropriately document student learning. She attributed her lack of knowledge at the time did not give her reason to challenge the expectations given.

That assessment course was really a that was a game changer for me like some of the readings we did when it comes to grading. But now looking back after what I've learned in my Doctoral program and how my perceptions of assessments of physical education have changed. Had I come in with the knowledge I have now I think I would have pushed back a little bit.

Both the school administration and Rachel's co-teacher worked together through the school's mentorship program. Through those relations, Rachel was given an official criterion to grade students. At the time, Rachel did not think much about it; later, she disagreed with the numerous non-achievement factors in the weighted outcomes.

### **Exosystem**

The exosystem consisted of formal structures and organizations in which Esther, Ruth, and Moses do not participate but which affect them, nonetheless. The primary features of their exosystem are the school district, school location, departmental policy, and neighboring high school influence. Esther, Ruth, and Moses each described the indirect influences that led to their grading outcomes.

**Esther Location - Teacher Interaction.** Esther a ninth-year physical education teacher in the North East United States believed that grades serve as an inspiration to achieve certain outcomes. Overall, students desired to achieve good grades, however students fail to identify their regulation regarding their skill level. Through her experiences teaching, she recognized that students entering high school are physically illiterate. Nevertheless, students are earning high marks on the subjective and objective measures of effort and skill respectively. As a result, the outcomes they seem to achieve on paper, do not reflect their actual performance in the classroom. Furthermore, Esther perceived that the expectations of the stakeholders do not

coincide with what she feels is important in the classroom. When given the authority Esther has successfully implemented a grading system that accurately denoted the appropriate mark students earn. Yet, there were instances within which Esther did not have the authority, and guidelines were given to her. The times she received expectations did not align with what she believed as an appropriate measure of student performance.

I think grades are essentially a motivator. If I've noticed anything, kids want good grades for the most part, and they expect good grades, and those things often don't align. So, I think grading in physical education is hard because kids have grown up especially at the secondary level, I see that kids have gotten A's, who really shouldn't have an A based on effort and skill. Especially if you look at skill. So, are they actually physically literate by the time they're in high school, maybe one out of 10 has physical literacy? So, when you're talking about grading, it's really hard to make a grading system that is accepted by students, community, school, and all the stakeholders. So, in terms of my attitude regarding grading, I do it, but I've never been able to. Only in one instance have I been able to create it the way I want it and feel that it's actually grading how it should be. All the times I've been provided a graded system, I follow it, but it is not adequate in assessing students' abilities or needs.

In Esther's current situation, she noted that the grading outcomes are administered by the district. The district does a one size fits all approach for both schools in the area to follow. The rubric consisted of a complex system that encouraged students to adhere to the managerial aspects of performance rather than skill or physical activity.

So, this is where it's interesting in this district, because our department has a department head that does not work in our building. She works in the other high school...So, they're making so they made up, their department had designed the rubric and the grading system. And both of the high schools have to use the same grading rubric and grading system...Our rubric every single day the kids receive 10 points. They receive a 10 if they're in their uniform, which is supposed to be a gray shirt and black shorts... If they are missing it what we're supposed to do if they're missing the gray shirt or the black shorts, they're supposed to lose two points automatically. So even if they went hard, all class did exactly what they were supposed to do, they would get an 80. And then if they were missing both of those, then they would get a 70 for the day. And if they were in non-physical activity, clothing, so jeans, they would get a zero, they can still participate, but they would get a zero... If you participate 90% of the time, you're supposed to get a nine out of

10. But then if you didn't have all the correct uniform, you would get minus three. So, you would get a six out of 10, even though you participated for 90% of the lesson.

The location of the school students was a reason to alter the outcomes. Esther described the other high school in the area as a less diverse and wealthier student population. Esther is currently teaching in a diverse population where many students stem from low-socioeconomic backgrounds. She noted how the supervisor who mandated those outcomes place of work resides at the other high school.

Currently, I'm in the most diverse school I've ever been in. The student population in our district is about 50-50. minority and white students. But there's two high schools and I am in my diverse High School. A quarter of the students are Caucasian, the rest are all minorities. About 30% of our school is ESL students. 60% of our ESL students are Nepalese refugees. They're also 100%, free or reduced lunch the entire school population, so we're much lower income.... In this district, our department has a department head that does not work in our building. She works in the other high school. So, the other high school is predominantly white and, and so they're like 75%, white, 25% minority...Only their minority makes up their free or reduced lunch. So, their department had designed the rubric and the grading system, and both of the high schools have to use the same grading rubric and grading system.

Esther believed those outcomes were only created considering the needs of the students at the other high school. She perceived that the other high school students will not face as much financial resistance when purchasing the appropriate attire for class. She experienced how often her students struggle with expectations of dressing appropriately.

No, it didn't match their profile.... I think the only way like this factor and wealth and poverty affect my grading is that I'm accommodating. If I know that you have 17 pairs of sneakers or yeezy's then you better be wearing one to class. If I know a student probably didn't have their clothes clean this week, and they're wearing jeans to class, I'm still probably going to give them points for changing as long as they participate.

She recognized that those outcomes are only beneficial to the other high school, because their school does not boast a diverse population. Ultimately the district implemented a one-size fits all approach.

**Ruth Teacher - District Interaction.** Ruth taught physical education for twenty years and secondary physical education in the last five years. Her school is in a small-town rural community in the South West United States. Ruth believed that achievement is based on student learning via real-life applications through the sport. However, when it comes to her grading, the district required her to utilize one-hundred participation as her outcome. Furthermore, student grades are not weighted in students' Grade Point Averages (GPAs). Ruth posited that the location and age of the district may inspire them to mandate such outcomes. Ruth did not agree with students being solely measured on participation. At the same time, she believed that students are not intrinsically motivated to achieve quality grades in physical education. Ultimately, she did not concern herself with aspects of work she cannot control. Ruth's perception of physical education being at the 'bottom of the barrel' at her school, inspired her not to spend any energy on defending the school's physical education program. Ultimately, she found her peace by only emphasizing what she feels is essential in sport or activity.

PE is not included in the core GPA...In my grading, because we're a small, old school district, we're still grading 100% just for participating. I don't agree with that. But at the same time, in my coaching I find that I'm okay with that. There's no way for a kid to engage in that unless it's personal... Because there is no reward for the kid to achieve a higher grade...Our administration explicitly states that it is just PE. For example, they're not having the specials (PE, computers, and music) do anything right now while we are in E learning...I have to bite my tongue numerous times after hearing other teachers tell me "It is just PE". PE teachers get a better example of the real world in our classes compared to other teachers. In my classrooms are examples of the real world. You get all the emotions, all the baggage, and all the loves and hates while in that classroom... Because they are

pushing grades so hard on everything else, I backed off on the grades and focused more on moral values like integrity.

Like Esther, Ruth outcomes were expectations given by the district. She chooses not to challenge it and decided to emphasize on moral values in her class.

**Moses Teacher - Departmental Policy Interaction.** Moses a twenty-fifth-year physical education teacher in the North East United States preferred a simplistic approach to student grades, as he believed utilizing a more objective approach takes time away from student physical activity.

I put enough in to justify should I ever have to argue or disagree with somebody. But I don't fill out a rubric for every student every period by any means. I have colleagues that do. Not in my district, but in other districts. For example, people may have a folder for gym class. Their head is down in the book and they're not watching. I don't see it as practical.

At Moses' school's there is a department policy in place concerning participation and effort. Moses deemed that students are achieving physical activity whether it is through participation or role playing in team sports. The departmental policy is conducive to Moses and allowed him to devote more time to observing student's physical activity. "I can get more done if I'm just teaching the class and not looking to the book. This is especially the case with younger kids". Overall, the school's department policy influenced half of the allotted percentage for student grades.

50% is broken down between participation and effort. Questions to consider for participation and effort include: Did you participate? How much effort are you giving when you participate? It is a department rule to play the game for at least one round. If they do not want to play the second round, they must assist with scorekeeping or timekeeping. Modifications are implemented upon request.

Those requirements gave Moses room to keep it simple, so his students could devote more time to play.

**Moses Teacher - Neighboring High School Interaction.** The other half of Moses' grading outcomes involved students dressing out. Moses noted the neighboring high school mandated the other half of his grading outcomes. However, he did consider the uncomfortable nature of dressing out for some middle schoolers.

Now the other 98% of the student population gets graded on wearing adequate gym attire. If we are going outside, they are responsible getting the weather report for proper outside attire. And if they do not, they're either responsible for having an agenda book with them, or some type of way for me to notify their parent...The only reason that we try to get every kid doing it in middle school is because our high school does it. And I would also say in middle school we are working out a lot more. They're definitely sweating. Changing isn't as big of a deal as somebody having on the right gear for me. And if a kid comes up to me says, "Hey, I forgot this. Am I okay?". If he is close to the requirement, I will say, "You're good today, since you typically don't forget them. Just don't make a habit of this. There are times where kids go through periods where they're uncomfortable getting changed, and they may not come out and say that to me. It especially occurs with fifth or sixth grade girls who may be having her period.

Ultimately, Moses did not challenge this stance. He adhered to it to ensure that almost all his students are effective in dressing out.

### **Macrosystem**

Lyra discussed how her perspectives of PE Policy influenced her official grading criteria. Like Naomi, Lyra exercised her authority to implement grading outcomes that represent her beliefs concerning student achievement.

**Lyra Teacher-Perspectives of PE Policy.** Lyra a first-year physical educator from the South Eastern U.S. espoused theories as well as theories in practice concerning student outcomes coordinated with each other. Lyra school environment primarily consisted of students coming from lower socio-economic backgrounds. Moreover, she displayed resilience in holding on to her objective values of student achievement that she learned from her professor in college despite, students struggling in the managerial aspects of performance. Ultimately, she drew the line

between what are achievement and non-achievement factors. She still believed hygiene and dressing out are essential to student health but recognized that it has nothing to do with academic achievement.

Umm...I come from like a really lower socio-economic school and community. So, like a lot of kids do not even have outfits to wear that they can change in to. Hygiene is kind of like a thing I really stress to the kids a lot. I mostly just grade using rubrics and checklists. I grade using a lot of rubrics and checklists just to use something objective to students so that way I am not grading them on dressing out are you in your tennis shoes?... I always give them like feedback on like hey make sure you pick this, do this a little bit different, or hey you are doing a really good job of that, it really pushes them...One of my professors that I had in college like really instilled in me.

Despite being situated in a unique environment, Lyra possessed the freedom to utilize objective outcomes of student grades in her physical education class. This is evident in differences in practices between her work colleagues. Lyra noted the hardships she faced when one of her colleagues confronted her pertaining to how she operated her physical education classes. Their work relationship provided insight pertaining to the autonomy each physical education teacher had to exercise their beliefs concerning student achievement in the classroom.

I got a lot I guess backlash from the older PE teacher because he said why you wouldn't focus on just getting the kids in, and you know just letting them play, and do their own thing. And I'm like but it's physical education and not gym class...So, he, I guess you should like in that older mindset just you know I'm just going to sit back and throw the ball out on the kid...He just grades on participation out there sometimes...The other teacher did checklist on how you do skills however he didn't mind grading that hinges on participation.

To understand the nature of this autonomy, the school's administration, more specifically the principal supports Lyra. Lyra received buy-in from her principal despite the criticisms she received from her other colleagues. However, this autonomy does come with a condition, regardless of her expectation of student achievement, she must give them every opportunity to pass. Lyra utilized the policy to her advantage to scale student grades in her class on an A and B

marker. “I grade like if you do what I expect it’s A, B. If you go above and beyond expectations, then you get an A.”

Lyra believed that utilizing rubrics and checklist would really push them. By her scaling the objective measures from Gen Z roles and responsibilities into an A or B outcome on the rubric or checklist, it provided students the motivation necessary to achieve those outcomes.

I actually showed my principal like, the rubrics and stuff that I was using, and I actually did. I do Gen Z roles and responsibilities. It gives each student like on their own teams and a role on each team, like a, like responsibility on them...She thought it was, like really different and interesting that she’d never heard of that kind of stuff before...It’d be weird like if I didn’t grade using that...I like holding them to an expectation because I feel like sometimes everybody has such lower expectations of some of these students...That kind of surprised my principal when I told her that...Our school is policy is you have to give kids every opportunity to make up their grade.

Lyra possessed the authority to best serve her students as she sees fit. Furthermore, Lyra also cited national associations like her state’s association for physical education, SHAPE, and NASPE playing a role in the formulation of her grade level outcomes.

Yes. So, I’m a member of AHPERD (Her South East State, Association for Health, Physical Education, Recreation and Dance) I’m in SHAPE now. I’m a member of NASPE too... Oh, yes, I use a lot of grade level outcomes as far as what am I working for with students? Just because like some of the performance indicators that we have for standards in our state are not like descriptive so they, but in (her state) the SHAPE president actually pushes a lot of stuff for SHAPE.

Lyra pinned her ear to the guidelines recommended by Gen Z roles and responsibilities, AHPERD, SHAPE, and NASPE. Given the autonomy, Lyra keeps in mind the recommendations set by the head officials in the physical education field. Her grading outcomes are influenced by their recommendations within her rubrics and checklists. Lyra successfully exercised her belief system in her work environment. The principal supported her vision and

does not seem to be hands on when it comes to how teachers grade their students on the condition that every student could pass.

The findings showed that several teachers possessed the authority to grade where they see fit, and some of the teachers utilized methods that were prescribed or predetermined. When given either sole or partial authority, three teachers provided the specific transactions in their school environment that influenced their official grading criteria. Those influences were mainly in their immediate work setting. For the most part, those relations encouraged them to grade utilizing non-achievement factors. Only (Lyra) cited an external influence that inspired her to objectively grade students. The remaining participants that were given outcomes followed orders from influences that were in their distal work environment. Ultimately, the outcomes that were prescribed reflected either subjective or non-achievement factors.

## CHAPTER V DISCUSSION

The purpose of this mixed methods study was to discover relations between a physical educator and their external environment, and understand how such links influence their grading outcomes. This chapter includes a discussion of the major findings related to the literature on physical education. The chapter concludes with a discussion of the limitations of the study, areas for future research, and a brief summary.

The chapter contains discussion and future research possibilities to help answer the research questions: (1) What are physical educators' uses of grading? (2) How does the total school environment influence grading outcomes in physical education?

The 15 respondents from the survey revealed their official outcomes in their grading period. The survey showed that active participation was heavily favored collectively, like Matanin and Tannehill's (1994) findings. Skill and performance were second, followed by attire, effort, behavior, and fitness level. The survey revealed that, collectively, among 15 physical educators, non-achievement factors make up over half of the students' grades in physical education. Through a semi-structured interview, the researcher interviewed 7 participants from the survey to discover how their total school environment influenced their outcomes.

The seven respondents discussed how their workplace environment led to the formulation of their official grading criteria. Utilizing Bronfenbrenner's EST as a lens, shown that, for the most part, the total school environment discouraged physical educators from grading objectively. The semi-structured interviews revealed whether teachers had the autonomy to grade or were held accountable by predetermined standards. The EST framework allowed the researcher to pinpoint the specific transactions that influenced one's official grading criteria within their total

school environment. The ecological model detailed the specific interactions in the total school environment that led to the formulation of a physical educator official grading criteria. Overall, both proximal and distal influences inspired grading outcomes that physical educators utilize. When educators had sole or partial autonomy to construct their official grading criteria, much of their influences were proximal, except for one participant. On the other hand, for the teachers who were given a prescribed outcome to grade students, the framework provided insight on the distal influences.

### **Interpretation of the Findings**

Only Lyra and Naomi had complete authority to grade students, and they both employed what best fitted their belief system. Joshua had partial authority, with the remaining 20 percent of his official grading criteria reflecting the expectations from his administration. The remaining four participants having no authority over their outcomes. Collectively, the environmental influences that played a role for Lyra, Naomi, and Joshua grading criteria were either in their micro or macrosystem. They all believed that their outcomes, for the most part, served their students well. However, the students did not play a large role in the formulation of Lyra's and Naomi's grading outcomes. Only Joshua considered what he thought his student's expectations were. On the contrary, Lyra and Naomi did not believe that their students influenced how they graded. Lyra tailored her belief system to national policies surrounding physical education and Naomi's perceptions were reinforced by her administration. There is reason to believe if physical educators possess certain values regarding academic achievement, then they would not allow students' opinions or behaviors concerning physical activity to alter their expectations. Hansen (1994, 1995) noted as teachers who understand their career as a vocation are more likely to have

a strong sense of resilience and commitment as they are enacting attributes that are reflective of their identity.

Furthermore, administrators supported their work, with only Joshua having slight resistance but favorable support. Therefore, the support, or perceived lack of may not be beneficial either way. For Naomi, the support from her administration allowed her to continually utilize active participation as a part of student outcomes. In Lyra's case the lack of involvement gave her the freedom to utilize objective forms of grading recommended by national physical education associations. Additionally, Lyra was the only participant in this study to utilize what is considered by NASPE (2004) and SHAPE (2014) recommendations of grading students. In all three scenarios it can be inferred that administrators may lack the knowledge of the recommended practices within physical education. Overall, they seem to reinforce subjective measures of grading. For Joshua, he still had room to convince his administration that their state standards were not ideal for his classroom due to the behaviors of the students. Moreover, with 80% of his grading criteria reflecting non-achievement factors it looks like he had the upper hand during those negotiations. In Naomi's case, she felt that administration was heavily vested in students attaining desirable levels of active participation. Lastly, Lyra mentioned that her principal lacked the awareness of what's recommended in the field, and she noted the diversity of practices among her work colleagues.

Additionally, such autonomy may not bode well for physical education programs. When Naomi had the authority to exercise her personal belief systems, the school's administration encouraged her to continually use active participation as an outcome. For Joshua, his authority to utilize objective measures was undermined by his student's response to physical education. Despite having autonomy, they are situated in environments that did not challenge them to grade

objectively. As a result, Joshua and Naomi's physical education programs did not evaluate students on any affective, psychomotor, and cognitive domains. Joshua and Naomi indicated their goal of physical education is to provide students with a variety of enjoyable activities in a relaxed atmosphere and without the threat associated with objective assessment. Their situation coincided with Stiggins' et. al. (1986) belief that educators do not possess the knowledge or skill respectively to employ recommended grading practices. Naomi cited her expectations student achievement came from her years as an adolescent and being labeled a "try-hard". Moreover, Joshua noted that while he possessed knowledge of recommended grading practices, his narratives revealed that he does not have the skill to employ such practices in diverse classroom environments. Yet, Lyra's official criteria were influenced by her knowledge of physical education policy. Furthermore, she displayed resilience, knowledge, and skill to continue to employ the recommended grading practices in her profession. These findings place considerations for the education or training teachers received. If physical educators receive the appropriate training, then they may utilize an objective-based grading system regardless of the setting.

The remaining participants discussed the negotiations residing within their meso and exosystem that influenced their weighted outcomes. The indirect influences where the teachers did not have an immediate role in led to the formulation of the non-achievement factors almost entirely present in their grading outcomes. All the outcomes that were provided to them, consisted of non-achievement factors such as appropriate, dress, or active participation. Therefore, it can be inferred that the indirect stakeholders are not aware of the recommended practices by scholars in the field. Also, those provided outcomes may reinforce the perception that physical education is meaningless. Utilizing such outcomes in the calculation of student

grades factors present objectivity, reliability, and validity issues (Dunham, 1994; Lund & Kirk, 2002; Morrow et al., 2005).

Like, Naomi, and Joshua, for Rachel, Moses, Esther and Ruth, their programs reminisce structured recreation. Rachel was the only case within which two individuals directly played a role in the formulation of her official grading criteria. Moreover, Rachel's narratives suggested that first-year teachers may not be equipped to utilize objective forms of grading. Jacalyn Lund alluded to Hans van der Mars at the 2018 AIESEP conference stating that many physical educators enter the profession with limited assessment skills, with less than 5% belonging to shape. Rachel's situation is an example of how ill-prepared teachers may be when entering an environment that does not hold them accountable to grade objectively, thus enabling them not to push back. Moses' indirect influences are the neighboring high school as well as his school departmental policy. His department expectations reinforced physical activity as an outcome but do not address the extent nor measure of physical activity. Both Ruth and Esther received expectations from the local school district. The outcomes that Ruth was given were only based on student participation. Ruth believed that her physical education program served no importance in her school. It could be very well that her colleague's perception inspired her not to challenge the outcomes given by the students. Moreover, her student's grades are not calculated in a student's Grade Point Average. Ruth's situation is in line with Young (2011) conceptual that some school districts exclude physical education grades from the calculation of students' overall GPA, and some colleges do not consider physical education grades in formulas for admission. Only, Esther partially utilized the outcomes given to her. Despite having no room to incorporate more objective measures in those outcomes, she slightly altered the outcomes so many of her

student's grades did not hinge on dressing out. Esther's disposition towards the school location played a role in the re-formulation of her official grading criteria.

Moreover, pass or fail marks that hinge on subjective factors provided by external influences could be more detrimental than beneficial when assessing student performance. In Esther's case, the fact that many students stemmed from low-income areas, posed as a challenge for them to adhere to the managerial aspects of performance. Districts requiring physical educators to utilize subjective or non-achievement factors may present an uneven playing field for students to achieve 'quality' physical education. Also, the subjective one-size fits all approach does not fit the learning needs of all students. Today at least, 43 states now require objective measures of student achievement to be included in teacher evaluations, and student growth is the preeminent criterion in teacher evaluations in 16 states (National Council on Teacher Quality, 2015). The physical educators in this investigation are either in the seven states not listed, or educational officials are not holding them accountable. Once again, this is evident by the consistent reports of non-achievement factors provided to physical educators. Such stakeholders, as well as administrator, did not seem to hold physical educators accountable for grading objectively. The question remains, how can you hold physical educators objectivity accountable if they are tasked to subjectively evaluate student performance? Therefore, they may lack the knowledge of what is recommended in the field.

Today systematic evaluation, formal assessment, and objective grading (based on assessment and evaluation) are infrequent in physical education (Hensley, Lambert, Baumgartner, & Stillwell, 1987; Imwold et al., 1982; Morrow, 1978). In line with Young's (2011) conceptual, it can be implied that still today non-achievement factors in some cases make up over half of a student's grades. However, this investigation provides insight into the role the

total school environment plays in the formulation of student grades, as recommended by Svennberg et al. (2014). Unlike Matanin and Tannehill (1994) and Svennberg et al. (2014) research that examined physical educators grading practices within a specified region or district, this research illustrated physical educators' grading outcomes from diverse locations within the United States. Whether teacher's possessed sole authority or not we see in almost all the instances where the total school environment encouraged physical educator's not to utilize NASPE (2004), SHAPE (2014), or any other achievement factors in their official grading criteria. Thus, such trends are still present within the U.S. This is evident by non-achievement factors making up over half of a student's grades in both the survey as well as almost all the interviews.

This research considered more than just the individual and sought to understand the workplace environment physical educators situated in. In most of our cases in this investigation, we found within a physical educator's workplace environment, that there are numerous influences that inspired or encouraged physical educators to utilize nonachievement factors in their official criterion. Johnson (2011) recommended immediate influences such as students, parents, and administrators playing role in student grades. This research conveys that there are also influences outside the immediate workplace of a physical educator. Furthermore, the indirect influences that mandated predetermined outcomes reinforced classroom management but not physical literacy. These results should be considered when communicating the recommended practices of grading to stakeholders. While previous research homed in more of the individual, and their beliefs, this research examined physical educator's perception of their workplace environment, and how that influenced their official grading criteria.

## **Limitations**

Since the research only considered the perceptions of physical educators there is a need to observe the classroom realities that physical educators are situated in. The participants were diverse in terms of location; therefore, it was not conducive for the researcher to conduct in class observations to examine the interactions with their colleagues. The COVID-19 pandemic also eradicated the possibility of doing in class observations, thus eliminating the idea of implementing such methods. The in-class observations could have been beneficial for garnering insight on the relations among physical educators and their stakeholders that heavily influenced their official grading criteria. To alleviate those concerns, the researcher selected literature from various educational fields that highlights environmental influences impacting teachers' grading practices. Furthermore, a member checking process was administered to ensure all perceived interactions were accurate.

## **Recommendations**

A couple of the participants (Joshua and Naomi) did not have either the knowledge or skill to grade objectively. Even in Rachel's case, she entered the profession having no knowledge or skill to appropriately grade students. Teachers who possess the authority to grade objectively may simply lack the ability to execute such measures. Furthermore, being situated in a work environment that does not inspire autonomous physical educators to grade objectively does not help either. Therefore, there is a need to further examine the extent to which teachers are formally aware of the recommended grading practices in physical education. It could be possible that physical educators are ill-prepared when entering the profession. Furthermore, they could succumb to the expectations of their stakeholders in their work environment.

The national or state-level recommendations seem to be absent from many of the participants' classrooms at the district, or school level. At the 2018 AIESEP conference, Hans van der Mars noted that national guidelines are not communicated at local levels. Only Joshua's administration cited his state's guidelines as something that he should incorporate into his grading. Besides Lyra, none of the participants adhere to the standards recommended either on the National or State Level. It can be inferred that the utilization and adherence of using national or state policies may be at the discretion of the physical educator if given the authority to grade. Nearly all the outcomes prescribed by the stakeholders in this study contradict NASPE (2004) statement concerning how students should be graded. Ann McPhail addressed this issue at the 2018 AIESEP conference concerning this issue concerning accountability and assessment begin with the interdependence of curriculum, instruction, and assessment, and when one construct is underdeveloped, all systems are affected. Moreover, she noted that the curriculum, instruction, and assessment triad need to operate in an effective, cohesive manner. Hays and Penney 'Assessment in Physical Education' book stated, "we endeavored to demonstrate that the establishment of valid assessment in physical education (...) requires concerted attention to the intersections and integrations of curriculum, pedagogy, and assessment to ensure that the values being communicated through assessment are readily accessible and consistent with the official and intended curricula in which students are engaged" (p. 68). MacPhail noted that utilizing a backward design approach bodes well with constructivism in the classroom. MacPhail posed a solution coined, 'the backward design method' which starts with the end in mind (the objectives, outcomes), then assessment (evidence), then teaching. Metaphorically a three-legged stool, the first leg is what students will learn, the second leg is to teach to the test (assessment are responsive to individual students and school contexts) not add on, and the third leg is to utilize

instruction to facilitate learning (intentionally, thoughtfully, creatively, and in a motivational way). This investigation has shown that such standards and guidelines are non-existent within the classroom. Therefore, it is impossible to utilize a backward approach to authentically gauge student or assess student learning. The end in mind for many of the participants in the study are merely managerial aspects of performance. There is a need to investigate how national or state physical education policies are communicated to first the district, then administration, and lastly the classroom.

The research only considers the perceptions of physical educators, and not the stakeholders. Despite being mentioned as a delimitation, there is a need to examine the expectations of stakeholders, to answer why they prescribe non-achievement factors in the make-up for most of a student's grades. The stakeholders in this investigation did not seem to be aware of the recommended grading practices in physical education, however, this cannot be concluded since that was outside the scope the study. Gathering insight from administrators and district officials may provide insight into why they reinforce subjective methods of grading. Furthermore, one would understand the resistance they might face when it comes to formulating a grading criterion to serve the perceived needs of students. Also, there is a need to investigate the extent of their knowledge concerning physical education, and how they evaluate teaching effectiveness within the classroom. Lastly, to garner insight on the role student's physical education grades play in their GPA calculation and identify the importance of students' grades in college admission requirements.

## CONCLUSION

Grades should reflect authentic learning (i.e., learning that is relevant to students and the real world) and authentic assessment experience (i.e., an accurate demonstration of what students know, can do and value) Young (2011). Also, grades should embody achievement, based on a set of predetermined educational outcomes, benchmarks, or objectives, and measurement of performance on those predetermined outcomes is systematic, criteria-based, and comprehensive. However, the total school environment deters physical educator's from incorporating reliable measures of objective grading. Physical educators are either not supported or held accountable in their workplace environment when it comes to how they grade. The stakeholders who devise expectations regarding how physical educators grade, must be informed on objective grading within physical education. They must work together to hold each other accountable according to what's recommended within the profession.

Additionally, physical educators, as well as stakeholders, must recognize subjective or non-achievement outcomes provide no indication of what students can learn. Typically, non-achievement or subjective factors such as attendance, being dressed in a physical education uniform, effort, and active participation are used for the determination of student grades. Grading on those outcomes could lead to confusion as well as lawsuits (Zirkel, 2007). Students and parents may push back and deem those outcomes unfair in the event students receive negative marks due to extenuating circumstances. Moreover, physical educators or administrators would struggle to defend the validity and reliability of student's grades in the classroom. For instance, they would struggle to academically discern the difference between an A or B student. Emphasizing managerial aspects of performance may discourage students from wanting to learn

the physical content. When grades don't relate to student learning, then this could be harmful to the profession, student, physical educator, school, and all other stakeholders.

Furthermore, physical educators and stakeholders need to be aware how grading objectively impacts students' physical literacy. Since much of the school environment deters physical educator's from utilizing an objective approach to grading, then students may falsely identify their regulation. As a result, they will earn high marks on managerial aspects of play as opposed to physical literacy. Grading on achievement factors ought to be an integral part of defending and evaluating student achievement in an educational program. If students are to demonstrate physical wellbeing, motor skills, and knowledge concerning physical activity. Then it is important to document those outcomes through objective grading as well as assessment to verify if these goals are being met. Lund and Shanklin (2011) studied the impact of grading accountability across the unit. All students in the study displayed improvement as documented by an increase in skill performance with students in the treatment class, presenting greater success than the control class. The study found that students of all ability levels can improve when they are informed in advance about the teacher's expectations and then held accountable for meeting these. There must be a shift towards, a valid, reliable, and consistent use of grading techniques to accurately portray student achievement (Matanin & Tannehill, 1994). Dawn Penney noted at the 2018 AIESEP conference that accountability ensures all physical education programs spark learning, achieve outcomes, and demonstrate evidence of learning. To ensure this outcome, every student must receive feedback, and educators must inspire them to continue to follow through. The importance of authentic learning and authentic assessment informs students of their progress and prepares students for all aspects of work.

Also, physical educators as well as stakeholders must work together to push objective grading. The ability to obtain information about the needs and progress of learners is a required teaching competency, furthermore, measuring the quality of learning through assessment and grading practices determines the needs and the progress of learners (Andrews & Barnes, 1990). Therefore, all stakeholders must be aware of such expectations that hold both teachers and students accountable. Matanin and Tannehill (1994) believed if students are held accountable, they will put forth more effort to see through each task. Furthermore, having a sound accountability system determines a large part in what students learn, and regular monitoring of student progress often results in higher achievement (Tousignant & Siedentop, 1983). Programs that do not provide objective, accountable assessment procedures do not lead to student achievement and cannot be clearly justified as an educational program. The school environment and teacher together must ensure the integrity of one's physical education program. Additionally, physical educators must possess the skill and knowledge necessary to utilize objective measures within the classrooms. When both parties work together, then it is more likely that physical education will be an essential part of the school curriculum.

Lastly, together they have a responsibility to uphold and ensure the integrity of their profession, and, both parties ought to adhere to fulfill that responsibility. Physical education should not reminisce recess or recreational play. Teacher evaluations must emphasize the approaches and techniques physical educators utilize to grade their students in line with the national expectations. Even at the state or district level, guidelines and policies must be reformed to adhere to the appropriate practices recommended by scholars. The profession has the potential to provide evidence that learning outcomes are being met in the affective, psychomotor, and

cognitive domains of learning. Yet the weighing of nonachievement or subjective factors, like dress, participation, and effort in students' grades sells the profession short.

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## APPENDICES

### APPENDIX A: INFORMED CONSENT

#### **INFORMATION LETTER**

#### **for a Research Study entitled**

#### **“Secondary Physical Educator’s Perceptions of Grading and the Influence of the Environment”**

**You are invited to participate in a research study** that examines the grading perceptions of physical educators and the role the total-school environment plays in influencing those perceptions. You are invited to participate because you are a state licensed physical educator that currently teaches or has taught in secondary physical education settings within the past five years. This research study is voluntary, meaning you do not have to take part in it. The procedures, risks, and benefits are fully described in the consents form. The study is being conducted by Michael Morris, Jr. a, Doctoral Student under the direction of Dr. Jared Russell, Professor in the Auburn University School of Kinesiology.

**The purpose of this study** is to explore how the environment influences the grading perceptions of physical educators.

**What will be involved if you participate?** If you decide to participate in this research study, you will complete one online survey that should take approximately 10 minutes and an interview that will last between 60 and 90 minutes.

**You will be asked to** complete a survey with questions about how you grade students, and demographic information. You will then be asked to participate in an interview that explores how your total-school environment influence your perception of grading.

**Are there any risks or discomforts?** The risks associated with participating in this study are breach of confidentiality. To minimize these risks, all data will be coded, then destroyed after three years. There will be NO job-related consequences whatsoever for denying consent in this study. Another potential risk is identifiable data associated with the interview audio recordings. The data will be recorded on a recording device that is not connected to the internet and will be transcribed immediately. Once transcribed, the anonymous data will be uploaded to Michael Morris' password protected encrypted computer and the audio recordings will be deleted.

**Are there any benefits to yourself or others?** Participants will benefit by being able to share their experiences concerning the use of their grading procedures. The findings of the study may serve multiple stakeholders such as administrators, teacher-parent organizations, school board officials, teacher education programs and most of all physical educators.

**Will you receive compensation for participating?** You will not be compensated for participating.

**Are there any costs?** There are no direct costs associated with your participation.

**If you change your mind about participating,** you can withdraw at any time by ending the survey before completion. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Once you've submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether to participate or to stop participating will not jeopardize your future relations with Auburn University, School of Kinesiology, or Michael Morris. Any data obtained in connection with this study will remain confidential.

**Any data obtained in connection with this study will remain anonymous.** We will protect your privacy and the data you provide by not requesting a name nor signature. Information

collected through your participation may be (examples: used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting, etc.

**If you have questions about this study**, please contact Michael Morris at mam0222@auburn.edu.

**If you have questions about your rights as a research participant**, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334) 844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. SELECTING “YES TO ONLINE SURVEY AND WILLINGNESS TO CONTACTED FOR INTERVIEWS”.

TO PARTICIPATE IN THE QUALTRICS SURVEY AND INTERVIEWS. SELECTING “YES, JUST SURVEY” AND TYPING YOUR NAME IN THE SPACE BELOW INDICATES YOUR WILLINGNESS TO PARTICIPATE IN JUST THE SURVEY.

Yes to online survey and willingness to be contacted for interviews (provide email below)

---

Yes to online survey only

No, I do not want to participate

THE AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD HAS APPROVED THIS DOCUMENT 3/10/2020 to -----, PROTOCOL # 20-137 EP 2003

APPENDIX B:

E-MAIL INVITATION FOR ON-LINE SURVEY

Dear \_\_\_\_\_, (state licensed physical educator)

I am a doctoral student in the School of Kinesiology at Auburn University. I would like to invite you to participate in my research study that examines the grading perceptions of physical educators and how the environment influences those perceptions. You may participate (or may not participate) if you are/were a physical educator that has taught in secondary settings.

Participants will be asked to complete an online survey, which will take approximately 10 minutes, and participate in an interview that will last between 60 and 90 minutes.

One potential risk being involved with this study is confidentiality. To minimize this risk, all survey, interview, and programmatic score data will be collected by Michael Morris and your name will be replaced with a unique identifier. Another potential risk is identifiable data associated with the interview audio recordings. The data will be recorded on a recording device that is not connected to the internet and will be transcribed immediately. Once transcribed, the data will be uploaded to Michael Morris' password protected encrypted computer.

If you agree with above, and decide to participate after reading the letter, you can access the survey from a link in the letter. If you would like to know more information about this study, an information letter can be obtained by contacting me via email at mam0222@auburn.edu.

If you have any questions, please contact me at mam@auburn.edu or my advisor, Dr. Jared Russell, at russej@auburn.edu.

Thank you for your consideration,

Michael Morris

THE AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD HAS APPROVED THIS DOCUMENT 3/10/2020 to ----- . PROTOCOL # 20-137 EP 2003

## APPENDIX C

### Secondary Physical Educators' Grading Outcomes and the Influence of the Environment

#### Percentages and Ranges of Student Grades Derived from Each Grading Category

1. If you are a **currently** teaching, please enter the **percentage weight** for each category reflected in your grade book in **this present** grading period (summing to 100 percent).

If you are **not presently teaching**, please enter the **percentage weight** from your grade book from your **most recent** grading period (summing to 100 percent).

Knowledge: \_\_\_\_

Skill Performance: \_\_\_\_

Fitness Level: \_\_\_\_

Attendance: \_\_\_\_

Active Participation: \_\_\_\_

Appropriate Attire: \_\_\_\_

Effort: \_\_\_\_

Behavior: \_\_\_\_

Other (Please Specify) \_\_\_\_\_: \_\_\_\_

2. How many years of teaching experience do you have? \_\_\_\_

3. What states have you taught in (etc. Florida, Georgia)? \_\_\_\_

4. Are you currently licensed or certified to teach?

Yes

No

5. Do you currently teach secondary physical education?

Yes

No

6. Are you currently teaching secondary physical education, if not have you taught secondary physical education within the last five years?

Yes, currently teaching secondary physical education

Not presently teaching, but did teach secondary physical education within the last five years

Neither

**Demographics**

7. How old are you \_\_\_\_

8. Sex (Leave blank if you prefer not to answer): \_\_\_\_

9. Race:

American Indian or Alaskan Native

Asian

Black or African American

Hispanic or Latino

Native Hawaiian or Pacific Islander

White

Mixed

Other, please specify: \_\_\_\_

Prefer not to answer

Thank You for your Time 😊

THE AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD HAS APPROVED THIS

DOCUMENT 3/10/2020 to ----- . PROTOCOL # 20-137 EP 2003

## APPENDIX D

### Interview Guide

#### 1. Beginning Questions

- (a.) Hey, how is it going?
- (d.) Describe your experience becoming a pe teacher?
- (c.) Describe your teaching philosophy.

#### 2. Teaching Identity

- (a.) Describe your attitude and fundamental beliefs concerning grades.

#### 3. Students

- (a.) Describe your students.
- (b.) Describe the relationships you have with your students.
- (d.) Do students express interest or concern for their grades?
- (e.) Describe students' reactions when they receive a bad grade?
- (f.) How do the students in your class influence your grading?

#### 4. Parents

- (a.) Describe the parents of your students.
- (b.) Describe your relationships with the parents.
- (c.) Do parents express interest or concern for their grades?
- (e.) How do the parents influence your grading?

#### 5. Colleagues

- (a.) Describe your colleagues.
- (d.) How do your colleagues behaviors/reactions influence your grading?

#### 6. Administrators

- (a.) Describe your administrators.
- (c.) How do they communicate their expectations with you?
- (d.) How does your school administration influence your grading?

#### 7. School Resources

- (c.) How do your school resources influence your grading? (salary, equipment, space, PD)

8. Parent - Teacher Organizations

(c.) Describe the PTA's influence on your grading?

9. High Stakes Testing

(c.) How does the states yearly standardized testing influence your grading

10. Culture

(b.) How does culture's perspective of influence your grading?

11. Perspectives of PE Policy and Programming

(a.) Describe your perspective of the national and state guidelines/policies recommended by SHAPE and NASPE.

(b.) How does culture's perspective of influence your grading?

12. Cultural Background of Students

(a.) Describe how the cultural backgrounds of your students influence your grading.

THE AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD HAS APPROVED THIS

DOCUMENT 3/10/2020 to -----, PROTOCOL # 20-137 EP 2003

**AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS  
RESEARCH PROTOCOL REVIEW FORM  
FULL BOARD or EXPEDITED**

For information or help contact **THE OFFICE OF RESEARCH COMPLIANCE (ORC)**, 115 Ramsay Hall, Auburn University  
**Phone:** 334-844-5966 **e-mail:** IRBAdmin@auburn.edu **Web Address:** <http://www.auburn.edu/research/vpr/ohs/index.htm>

Revised 2.1.2014

Submit completed form to [IRBsubmit@auburn.edu](mailto:IRBsubmit@auburn.edu) or 115 Ramsay Hall, Auburn University 36849.

Form must be populated using Adobe Acrobat / Pro 9 or greater standalone program (do not fill out in browser). Hand written forms will not be accepted.

1. PROPOSED START DATE of STUDY: \_\_\_\_\_

PROPOSED REVIEW CATEGORY (Check one):  FULL BOARD  EXPEDITED

SUBMISSION STATUS (Check one):  NEW  REVISIONS (to address IRB Review Comments)

2. PROJECT TITLE: \_\_\_\_\_

3. \_\_\_\_\_  
 PRINCIPAL INVESTIGATOR TITLE DEPT AU E-MAIL

\_\_\_\_\_ PHONE ALTERNATE E-MAIL  
 MAILING ADDRESS

4. FUNDING SUPPORT:  N/A  Internal  External Agency: \_\_\_\_\_  Pending  Received

For federal funding, list agency and grant number (if available). \_\_\_\_\_

5a. List any contractors, sub-contractors, other entities associated with this project:

\_\_\_\_\_

b. List any other IRBs associated with this project (including Reviewed, Deferred, Determination, etc.):

\_\_\_\_\_

**PROTOCOL PACKET CHECKLIST**

All protocols must include the following items:

- Research Protocol Review Form (All signatures included and all sections completed)  
 (Examples of appended documents are found on the OHSR website: <http://www.auburn.edu/research/vpr/ohs/sample.htm>)
- CITI Training Certificates for all Key Personnel.
- Consent Form or Information Letter and any Releases (audio, video or photo) that the participant will sign.
- Appendix A, "Reference List"
- Appendix B if e-mails, flyers, advertisements, generalized announcements or scripts, etc., are used to recruit participants.
- Appendix C if data collection sheets, surveys, tests, other recording instruments, interview scripts, etc. will be used for data collection. Be sure to attach them in the order in which they are listed in # 13c.
- Appendix D if you will be using a debriefing form or include emergency plans/procedures and medical referral lists (A referral list may be attached to the consent document).
- Appendix E if research is being conducted at sites other than Auburn University or in cooperation with other entities. A permission letter from the site / program director must be included indicating their cooperation or involvement in the project. NOTE: If the proposed research is a multi-site project, involving investigators or participants at other academic institutions, hospitals or private research organizations, a letter of IRB approval from each entity is required prior to initiating the project.
- Appendix F - Written evidence of acceptance by the host country if research is conducted outside the United States.

**FOR ORC OFFICE USE ONLY**

DATE RECEIVED IN ORC: \_\_\_\_\_ by \_\_\_\_\_ PROTOCOL # \_\_\_\_\_  
 DATE OF IRB REVIEW: \_\_\_\_\_ by \_\_\_\_\_ APPROVAL CATEGORY: \_\_\_\_\_  
 DATE OF IRB APPROVAL: \_\_\_\_\_ by \_\_\_\_\_ INTERVAL FOR CONTINUING \_\_\_\_\_  
 COMMENTS: \_\_\_\_\_

The Auburn University Institutional  
 Review Board has approved this  
 Document for use from  
 03/10/2020 to \_\_\_\_\_  
 Protocol # 20-137 EP 2003

## 6A. Research Methodology

Please check all descriptors that best apply to the research methodology.

Data Source(s):  New Data  Existing Data

Will recorded data directly or indirectly identify participants?

Yes  No

Data collection will involve the use of:

Educational Tests (cognitive diagnostic, aptitude, etc.)

Interview

Observation

Location or Tracking Measures

Physical / Physiological Measures or Specimens (see Section 6E.)

Surveys / Questionnaires

Other: \_\_\_\_\_

Internet / Electronic

Audio

Video

Photos

Digital images

Private records or files

## 6B. Participant Information

Please check all descriptors that apply to the target population.

Males  Females  AU students

**Vulnerable Populations**

Pregnant Women/Fetuses  Prisoners  Institutionalized

Children and/or Adolescents (under age 19 in AL)

**Persons with:**

Economic Disadvantages  Physical Disabilities

Educational Disadvantages  Intellectual Disabilities

Do you plan to compensate your participants?  Yes  No

## 6C. Risks to Participants

Please identify all risks that participants might encounter in this research.

Breach of Confidentiality\*  Coercion

Deception  Physical

Psychological  Social

None

Other: \_\_\_\_\_

\*Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

## 6D. Corresponding Approval/Oversight

- Do you need IBC Approval for this study?

Yes  No

If yes, BUA # \_\_\_\_\_ Expiration date \_\_\_\_\_

- Do you need IACUC Approval for this study?

Yes  No

If yes, PRN # \_\_\_\_\_ Expiration date \_\_\_\_\_

- Does this study involve the Auburn University MRI Center?

Yes  No

Which MRI(s) will be used for this project? (Check all that apply)

3T  7T

Does any portion of this project require review by the MRI Safety Advisory Council?

Yes  No

Signature of MRI Center Representative: \_\_\_\_\_

*Required for all projects involving the AU MRI Center*

Appropriate MRI Center Representatives:

Dr. Thomas S. Denney, Director AU MRI Center

Dr. Ron Beyers, MR Safety Officer

7. PROJECT ASSURANCES Secondary Physical Educators Perceptions of Grading and the Influence of the Environment

**A. PRINCIPAL INVESTIGATOR'S ASSURANCES**

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
  - a. Conducting the project by qualified personnel according to the approved protocol
  - b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Research Compliance
  - c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
  - d. Promptly reporting significant adverse events and/or effects to the Office of Research Compliance in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has been named as co-investigator in this application, or I will advise ORC, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Research Compliance before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates that I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Michael Morris, Jr.

Printed name of Principal Investigator

Principal Investigator's Signature

3/5/2020  
Date

**B. FACULTY ADVISOR/SPONSOR'S ASSURANCES**

1. I have read the protocol submitted for this project for content, clarity, and methodology.
2. By my signature as faculty advisor/sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
3. I agree to meet with the investigator on a regular basis to monitor study progress. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
4. I assure that the investigator will promptly report significant incidents and/or adverse events and/or effects to the ORC in writing within 5 working days of the occurrence.
5. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the ORC by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.

Dr. Jared Russell

Printed name of Faculty Advisor / Sponsor

Faculty Advisor's Signature

3/5/2020  
Date

**C. DEPARTMENT HEAD'S ASSURANCE**

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department.

Dr. Mary Rudisill

Printed name of Department Head

Department Head's Signature

3/5/2020  
Date

- 8. PROJECT OVERVIEW: Prepare an abstract that includes:**  
(350 word maximum, in language understandable to someone who is not familiar with your area of study):
- a) **A summary of relevant research findings leading to this research proposal:**  
(Cite sources; include a "Reference List" as **Appendix A.**)
  - b) **A brief description of the methodology, including design, population, and variables of interest**

- 9. PURPOSE.**
- a. **Clearly state the purpose of this project and all research questions, or aims.**

- b. **How will the results of this project be used? (e.g., Presentation? Publication? Thesis? Dissertation?)**

10. **KEY PERSONNEL.** Describe responsibilities. Include information on research training or certifications related to this project. **CITI is required.** Be as specific as possible. (Include additional personnel in an attachment.) *All key personnel must **attach CITI certificates of completion.***

Principle Investigator \_\_\_\_\_ Title: \_\_\_\_\_ E-mail address \_\_\_\_\_

Dept / Affiliation: \_\_\_\_\_

*Roles / Responsibilities:*

Individual: \_\_\_\_\_ Title: \_\_\_\_\_ E-mail address \_\_\_\_\_

Dept / Affiliation: \_\_\_\_\_

*Roles / Responsibilities:*

Individual: \_\_\_\_\_ Title: \_\_\_\_\_ E-mail address \_\_\_\_\_

Dept / Affiliation: \_\_\_\_\_

*Roles / Responsibilities:*

Individual: \_\_\_\_\_ Title: \_\_\_\_\_ E-mail address \_\_\_\_\_

Dept / Affiliation: \_\_\_\_\_

*Roles / Responsibilities:*

Individual: \_\_\_\_\_ Title: \_\_\_\_\_ E-mail address \_\_\_\_\_

Dept / Affiliation: \_\_\_\_\_

*Roles / Responsibilities:*

Individual: \_\_\_\_\_ Title: \_\_\_\_\_ E-mail address \_\_\_\_\_

Dept / Affiliation: \_\_\_\_\_

*Roles / Responsibilities:*

11. **LOCATION OF RESEARCH.** List all locations where data collection will take place. (School systems, organizations, businesses, buildings and room numbers, servers for web surveys, etc.) Be as specific as possible. Attach permission letters in **Appendix E.**

(See sample letters at <http://www.auburn.edu/research/vpr/ohs/sample.htm>)

12. PARTICIPANTS.

- a. Describe the participant population you have chosen for this project including inclusion or exclusion criteria for participant selection.

Check here if using existing data, describe the population from whom data was collected, & include the # of data files.

- b. Describe, step-by-step, in layman's terms, all procedures you will use to recruit participants. Include in [Appendix B](#) a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate. (See sample documents at <http://www.auburn.edu/research/vpr/ohs/sample.htm>.)

- c. What is the minimum number of participants you need to validate the study? \_\_\_\_\_

How many participants do you expect to recruit? \_\_\_\_\_

Is there a limit on the number of participants you will include in the study?  No  Yes - the # is \_\_\_\_\_

- d. Describe the type, amount and method of compensation and/or incentives for participants.

(If no compensation will be given, check here: )

Select the type of compensation:  Monetary  Incentives

Raffle or Drawing incentive (Include the chances of winning.)

Extra Credit (State the value)

Other

Description:

13. PROJECT DESIGN & METHODS.

a. Describe, step-by-step, all procedures and methods that will be used to consent participants. If a waiver is being requested, check each waiver you are requesting, describe how the project meets the criteria for the waiver.

- Waiver of Consent (including using existing data)
- Waiver of Documentation of Consent (use of Information Letter)
- Waiver of Parental Permission (for college students)

b. Describe the research design and methods you will use to address your purpose. Include a clear description of when, where and how you will collect all data for this project. Include specific information about the participants' time and effort commitment. (NOTE: Use language that would be understandable to someone who is not familiar with your area of study. Without a complete description of all procedures, the Auburn University IRB will not be able to review this protocol. *If additional space is needed for this section, save the information as a .PDF file and insert after page 7 of this form.*)

13. PROJECT DESIGN & METHODS. *Continued*

- c. List all data collection instruments used in this project, in the order they appear in [Appendix C](#). (e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

- d. Data analysis: Explain how the data will be analyzed.

14. RISKS & DISCOMFORTS: List and describe all of the risks that participants might encounter in this research. *If you are using deception in this study, please justify the use of deception and be sure to attach a copy of the debriefing form you plan to use in [Appendix D](#).* (Examples of possible risks are in section #6D on page 2)

15. **PRECAUTIONS.** Identify and describe all precautions you have taken to eliminate or reduce risks as listed in #14. If the participants can be classified as a "vulnerable" population, please describe additional safeguards that you will use to assure the ethical treatment of these individuals. Provide a copy of any emergency plans/procedures and medical referral lists in Appendix D. (Samples can be found online at <http://www.auburn.edu/research/vpr/ohs/sample.htm#precautions>)

If using the Internet or other electronic means to collect data, what confidentiality or security precautions are in place to protect (or not collect) identifiable data? Include protections used during both the collection and transfer of data.

16. **BENEFITS.**

- a. List all realistic direct benefits participants can expect by participating in this specific study.  
(Do not include "compensation" listed in #12d.) Check here if there are no direct benefits to participants.

- b. List all realistic benefits for the general population that may be generated from this study.

17. PROTECTION OF DATA.

a. Data are collected:

- Anonymously with no direct or indirect coding, link, or awareness of who participated in the study (Skip to e)
- Confidentially, but without a link of participant's data to any identifying information (collected as "confidential" but recorded and analyzed as "anonymous") (Skip to e)
- Confidentially with collection and protection of linkages to identifiable information

b. If data are collected with identifiers or as coded or linked to identifying information, describe the identifiers collected and how they are linked to the participant's data.

c. Justify your need to code participants' data or link the data with identifying information.

d. Describe how and where identifying data and/or code lists will be stored. (Building, room number?) Describe how the location where data is stored will be secured in your absence. For electronic data, describe security. If applicable, state specifically where any IRB-approved and participant-signed consent documents will be kept on campus for 3 years after the study ends.

e. Describe how and where the data will be stored (e.g., hard copy, audio cassette, electronic data, etc.), and how the location where data is stored is separated from identifying data and will be secured in your absence. For electronic data, describe security

f. Who will have access to participants' data?

*(The faculty advisor should have full access and be able to produce the data in the case of a federal or institutional audit.)*

g. When is the latest date that identifying information or links will be retained and how will that information or links be destroyed? (Check here if only anonymous data will be retained )

# Appendix A

## References

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**INFORMATION LETTER**  
**for a Research Study entitled**  
**“Secondary Physical Educator’s Perceptions of Grading and the Influence of the Environment”**

**You are invited to participate in a research study** that examines the grading perceptions of physical educators and the role the total-school environment plays in influencing those perceptions. You are invited to participate because you are a state licensed physical educator that currently teaches or has taught in secondary physical education settings within the past five years. This research study is voluntary, meaning you do not have to take part in it. The procedures, risks, and benefits are fully described in the consents form. The study is being conducted by Michael Morris, Jr. a, Doctoral Student under the direction of Dr. Jared Russell, Professor in the Auburn University School of Kinesiology.

**The purpose of this study** is to explore how the environment influences the grading perceptions of physical educators.

**What will be involved if you participate?** If you decide to participate in this research study, you will complete one online survey that should take approximately 10 minutes and an interview that will last between 60 and 90 minutes.

**You will be asked to** complete a survey with questions about how you grade students, and demographic information. You will then be asked to participate in an interview that explores how your total-school environment influence your perception of grading.

**Are there any risks or discomforts?** The risks associated with participating in this study are breach of confidentiality. To minimize these risks, all data will be coded, then destroyed after three years. There will be NO job-related consequences whatsoever for denying consent in this study. Another potential risk is identifiable data associated with the interview audio recordings. The data will be recorded on a recording device that is not connected to the internet and will be transcribed immediately. Once transcribed, the anonymous data will be will be deleted.

**Are there any benefits to yourself or others?** Participants will benefit by being able to share their experiences concerning the use of their grading procedures. The findings of the study may serve multiple stakeholders such as administrators, teacher-parent organizations, school board officials, teacher education programs and most of all physical educators.

**Will you receive compensation for participating?** You will not be compensated for participating.



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**Are there any costs?** There are no direct costs associated with your participation.

**If you change your mind about participating,** you can withdraw at any time by ending the survey before completion. If you choose to withdraw, your data can be withdrawn as long as it is identifiable.

be unidentifiable. Your decision about whether to participate or to stop participating will not jeopardize your future relations with Auburn University, School of Kinesiology, or Michael Morris. Any data obtained in connection with this study will remain confidential.

**Any data obtained in connection with this study will remain anonymous.** We will protect your privacy and the data you provide by not requesting a name nor signature. Information collected through your participation may be (examples: used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting, etc.

**If you have questions about this study,** please contact Michael Morris at (904) 887-4950 or [mam0222@auburn.edu](mailto:mam0222@auburn.edu).

**If you have questions about your rights as a research participant,** you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334) 844-5966 or e-mail at [IRBadmin@auburn.edu](mailto:IRBadmin@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER  
OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. SELECTING  
TED FOR

TO PARTICIPATE IN THE QUALTRICS SURVEY AND INTERVIEWS. SELECTING  
"YES, JUST SURVEY" AND TYPING YOUR NAME IN THE SPACE BELOW INDICATES  
YOUR WILLINGNESS TO PARTICIPATE IN JUST THE SURVEY.

Yes to online survey and willingness to be contacted for interviews (provide email below)

---

Yes to online survey only

No, I do not want to participate

## **E-MAIL INVITATION FOR ON-LINE SURVEY**

Dear \_\_\_\_\_, (state licensed physical educator)

I am a doctoral student in the School of Kinesiology at Auburn University. I would like to invite you to participate in my research study that examines the grading perceptions of physical educators and how the environment influences those perceptions. You may participate (or may not participate) if you are/were a physical educator that has taught in secondary settings.

Participants will be asked to complete an online survey, which will take approximately 10 minutes, and participate in an interview that will last between 60 and 90 minutes.

One potential risk being involved with this study is confidentiality. To minimize this risk, all survey, interview, and programmatic score data will be collected by Michael Morris and your name will be replaced with a unique identifier. Another potential risk is identifiable data associated with the interview audio recordings. The data will be recorded on a recording device that is not connected to the internet and will be transcribed immediately. Once transcribed, the data will be uploaded to Michael Morris' password protected encrypted computer.

If you agree with above, and decide to participate after reading the letter, you can access the survey from a link in the letter. If you would like to know more information about this study, an information letter can be obtained by contacting me via email at [mam0222@auburn.edu](mailto:mam0222@auburn.edu).

If you have any questions, please contact me at [mam@auburn.edu](mailto:mam@auburn.edu) or my advisor, Dr. Jared Russell, at [russej@auburn.edu](mailto:russej@auburn.edu).

Thank you for your consideration,

Michael Morris

# Appendix C

## Teachers' Perceptions on the Role of Grading in Secondary Physical Education

### Percentages and Ranges of Student Grades Derived from Each Grading Category

1. If you are a *currently* teaching, please enter the *percentage weight* for each category reflected in your grade book in *this present* grading period.

If you are *not presently teaching*, please enter the *percentage weight* from your grade book from your *most recent* grading period.

Knowledge: \_\_\_\_

Skill Performance: \_\_\_\_

Fitness Level: \_\_\_\_

Attendance: \_\_\_\_

Active Participation: \_\_\_\_

Appropriate Attire: \_\_\_\_

Effort: \_\_\_\_

Behavior: \_\_\_\_

Other (Please Specify) \_\_\_\_\_: \_\_\_\_

2. How many years of teaching experience do you have? \_\_\_\_

3. What states have you taught in? \_\_\_\_

4. Are you currently licensed or certified to teach?

Yes

No

5. Do you currently teach secondary physical education?

Yes

No

6. Are you currently teaching secondary physical education, if not have you taught secondary physical education within the last five years?

Yes, currently teaching secondary physical education

Not presently teaching, but did teach secondary physical education within the last five years

Neither

**Demographics**

7. How old are you \_\_\_\_

8. Sex (Leave blank if you prefer not to answer): \_\_\_\_

9. Race:

American Indian or Alaskan Native

Asian

Black or African American

Hispanic or Latino

Native Hawaiian or Pacific Islander

White

Mixed

Other, please specify: \_\_\_\_

Prefer not to answer

Thank You for your Time

## Interview Guide

### 1. Beginning Questions

- (a.) Hey, how is it going?
- (d.) Describe your experience becoming a pe teacher?
- (c.) Describe your teaching philosophy.

### 2. Teaching Identity

- (a.) Describe your attitude and fundamental beliefs concerning grades.

### 3. Students

- (a.) Describe your students.
- (b.) Describe the relationships you have with your students.
- (d.) Do students express interest or concern for their grades?
- (e.) Describe students' reactions when they receive a bad grade?
- (f.) How do the students in your class influence your perceptions toward grading?

### 4. Parents

- (a.) Describe the parents of your students.
- (b.) Describe your relationships with the parents.
- (c.) Do parents express interest or concern for their grades?
- (e.) How do the parents influence your perceptions toward grading?

### 5. Colleagues

- (a.) Describe your colleagues.
- (d.) How do your colleagues behaviors/reactions influence your perceptions toward grading?

### 6. Administrators

- (a.) Describe your administrators.
- (c.) How do they communicate their expectations with you?
- (d.) How does your school administration influence your perceptions toward grading?

### 7. School Resources

- (c.) How do your school resources influence your perception of grading? (salary, equipment, space, PD)

### 8. Parent – Teacher Organizations

(c.) Describe the PTA's influence on your perception of grading?

#### 9. High Stakes Testing

(c.) How does the states yearly standardized testing influence your perception of grading

#### 10. Culture

(b.) How does culture's perspective of influence your perception of grading?

#### 11. Perspectives of PE Policy and Programming

(a.) Describe your perspective of the national and state guidelines/policies recommended by SHAPE and NASPE.

(b.) How does culture's perspective of influence your perception of grading?

#### 12. Cultural Background of Students

(a.) Describe how the cultural backgrounds of your students influence your perception of grading.

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## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

\* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Michael Morris (ID: 6450297)
- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Avoiding Group Harms - International Research Perspectives
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366816
- **Completion Date:** 07-Sep-2017
- **Expiration Date:** 06-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	07-Sep-2017	3/3 (100%)

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- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Avoiding Group Harms - International Research Perspectives
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366816
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	07-Sep-2017	3/3 (100%)

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- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Avoiding Group Harms - U.S. Research Perspectives
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366815
- **Completion Date:** 07-Sep-2017
- **Expiration Date:** 06-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	07-Sep-2017	3/3 (100%)

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- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Avoiding Group Harms - U.S. Research Perspectives
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366815
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	07-Sep-2017	3/3 (100%)

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- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Conflicts of Interest in Research Involving Human Subjects
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366814
- **Completion Date:** 07-Sep-2017
- **Expiration Date:** 06-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	07-Sep-2017	5/5 (100%)

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## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Conflicts of Interest in Research Involving Human Subjects
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366814
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	07-Sep-2017	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

\* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Michael Morris (ID: 6450297)
- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Cultural Competence in Research
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366818
- **Completion Date:** 07-Sep-2017
- **Expiration Date:** 06-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 80

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Cultural Competence in Research (ID: 15166)	07-Sep-2017	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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Collaborative Institutional Training Initiative (CITI Program)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

\*\* NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Michael Morris (ID: 6450297)
- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Cultural Competence in Research
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366818
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 80

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Cultural Competence in Research (ID: 15166)	07-Sep-2017	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Defining Research with Human Subjects - SBE
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366820
- **Completion Date:** 07-Sep-2017
- **Expiration Date:** 06-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 80

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Defining Research with Human Subjects - SBE (ID: 491)	07-Sep-2017	4/5 (80%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Defining Research with Human Subjects - SBE
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366820
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 80

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Defining Research with Human Subjects - SBE (ID: 491)	07-Sep-2017	4/5 (80%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** Good Laboratory Practice (GLP)
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - GLP
  
- **Record ID:** 24366813
- **Completion Date:** 14-Sep-2017
- **Expiration Date:** 13-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 83

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
CITI GLP Course: Overview (ID: 16778)	13-Sep-2017	No Quiz
History of the Good Laboratory Practices: A Breach of Trust (ID: 16696)	13-Sep-2017	5/5 (100%)
Here & There: U.S. and Global Regulatory Agencies (ID: 16697)	13-Sep-2017	4/5 (80%)
Let's Be Clear: Words Matter in GLP (ID: 16698)	13-Sep-2017	4/5 (80%)
Components of Compliance (ID: 16701)	13-Sep-2017	4/5 (80%)
GLP Requirements of Personnel (ID: 16699)	13-Sep-2017	4/5 (80%)
The Responsible Use of Laboratory Animals (LA) – Part 1 (ID: 16703)	13-Sep-2017	4/5 (80%)
The Responsible Use of Laboratory Animals (LA) – Part 2 (ID: 16704)	13-Sep-2017	4/5 (80%)
Standard Operating Procedures (SOPs) and Equipment Operation (ID: 16702)	13-Sep-2017	4/5 (80%)
Understanding Raw Data and Reconstruction (ID: 16700)	13-Sep-2017	4/5 (80%)
Required Reading: Study Protocols (ID: 16705)	13-Sep-2017	5/5 (100%)
Archiving Study Data and Specimens (ID: 16708)	14-Sep-2017	5/5 (100%)
The Quality Assurance Unit (QAU) (ID: 16707)	14-Sep-2017	4/5 (80%)
Chemicals, Test Articles and Solutions (ID: 16706)	14-Sep-2017	4/5 (80%)
Reporting of Study Results and Regulatory Decisions on Study Disqualification (ID: 16709)	14-Sep-2017	3/5 (60%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483

- **Curriculum Group:** Good Laboratory Practice (GLP)
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - GLP

- **Record ID:** 24366813
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 83

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
CITI GLP Course: Overview (ID: 16778)	13-Sep-2017	No Quiz
History of the Good Laboratory Practices: A Breach of Trust (ID: 16696)	13-Sep-2017	5/5 (100%)
Here & There: U.S. and Global Regulatory Agencies (ID: 16697)	13-Sep-2017	4/5 (80%)
Let's Be Clear: Words Matter in GLP (ID: 16698)	13-Sep-2017	4/5 (80%)
GLP Requirements of Personnel (ID: 16699)	13-Sep-2017	4/5 (80%)
Understanding Raw Data and Reconstruction (ID: 16700)	13-Sep-2017	4/5 (80%)
Components of Compliance (ID: 16701)	13-Sep-2017	4/5 (80%)
Standard Operating Procedures (SOPs) and Equipment Operation (ID: 16702)	13-Sep-2017	4/5 (80%)
The Responsible Use of Laboratory Animals (LA) – Part 1 (ID: 16703)	13-Sep-2017	4/5 (80%)
The Responsible Use of Laboratory Animals (LA) – Part 2 (ID: 16704)	13-Sep-2017	4/5 (80%)
Required Reading: Study Protocols (ID: 16705)	13-Sep-2017	5/5 (100%)
Chemicals, Test Articles and Solutions (ID: 16706)	14-Sep-2017	4/5 (80%)
The Quality Assurance Unit (QAU) (ID: 16707)	14-Sep-2017	4/5 (80%)
Archiving Study Data and Specimens (ID: 16708)	14-Sep-2017	5/5 (100%)
Reporting of Study Results and Regulatory Decisions on Study Disqualification (ID: 16709)	14-Sep-2017	3/5 (60%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** History and Ethical Principles - SBE
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366819
- **Completion Date:** 14-Sep-2017
- **Expiration Date:** 13-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 80

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
History and Ethical Principles - SBE (ID: 490)	14-Sep-2017	4/5 (80%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** History and Ethical Principles - SBE
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366819
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 80

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
History and Ethical Principles - SBE (ID: 490)	14-Sep-2017	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Name:** Michael Morris (ID: 6450297)
- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** History and Ethics of Human Subjects Research
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366817
- **Completion Date:** 14-Sep-2017
- **Expiration Date:** 13-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 86

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
History and Ethics of Human Subjects Research (ID: 498)	14-Sep-2017	6/7 (86%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** History and Ethics of Human Subjects Research
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366817
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 86

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
History and Ethics of Human Subjects Research (ID: 498)	14-Sep-2017	6/7 (86%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483

- **Curriculum Group:** IRB # 2 Social and Behavioral Emphasis - AU Personnel - Basic/Refresher
- **Course Learner Group:** IRB # 2 Social and Behavioral Emphasis - AU Personnel
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Key Personnel (including AU Faculty, Staff and Students) and Faculty Advisors involved primarily in Social/Behavioral Research with human subjects.

- **Record ID:** 24366812
- **Completion Date:** 14-Sep-2017
- **Expiration Date:** 13-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 80

### REQUIRED AND ELECTIVE MODULES ONLY

	DATE COMPLETED	SCORE
The Federal Regulations - SBE (ID: 502)	14-Sep-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	14-Sep-2017	4/5 (80%)
Informed Consent - SBE (ID: 504)	14-Sep-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	14-Sep-2017	5/5 (100%)
Students in Research (ID: 1321)	14-Sep-2017	4/5 (80%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	14-Sep-2017	1/5 (20%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483

- **Curriculum Group:** IRB # 2 Social and Behavioral Emphasis - AU Personnel - Basic/Refresher
- **Course Learner Group:** IRB # 2 Social and Behavioral Emphasis - AU Personnel
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Key Personnel (including AU Faculty, Staff and Students) and Faculty Advisors involved primarily in Social/Behavioral Research with human subjects.

- **Record ID:** 24366812
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 80

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Students in Research (ID: 1321)	14-Sep-2017	4/5 (80%)
The Federal Regulations - SBE (ID: 502)	14-Sep-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	14-Sep-2017	4/5 (80%)
Informed Consent - SBE (ID: 504)	14-Sep-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	14-Sep-2017	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	14-Sep-2017	1/5 (20%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483

- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Records-Based Research
- **Stage:** Stage 1 - Basic Course

- **Record ID:** 24366808
- **Completion Date:** 14-Sep-2017
- **Expiration Date:** 13-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Records-Based Research (ID: 5)	14-Sep-2017	3/3 (100%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

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- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Records-Based Research
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366808
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Records-Based Research (ID: 5)	14-Sep-2017	3/3 (100%)

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# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS\*

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- **Name:** Michael Morris (ID: 6450297)
- **Institution Affiliation:** Auburn University (ID: 964)
- **Institution Email:** mam0222@auburn.edu
- **Institution Unit:** Kinesiology
- **Phone:** (334)844-4483
  
- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Workers as Research Subjects - A Vulnerable Population
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366811
- **Completion Date:** 14-Sep-2017
- **Expiration Date:** 13-Sep-2020
- **Minimum Passing:** 80
- **Reported Score\*:** 100

### REQUIRED AND ELECTIVE MODULES ONLY

### DATE COMPLETED

### SCORE

Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)

14-Sep-2017

4/4 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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#### Collaborative Institutional Training Initiative (CITI Program)

Email: [support@citiprogram.org](mailto:support@citiprogram.org)

Phone: 888-529-5929

Web: <https://www.citiprogram.org>

# COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

## COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

\*\* NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Michael Morris (ID: 6450297)
- **Institution Affiliation:** Auburn University (ID: 964)
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- **Curriculum Group:** IRB Additional Modules
- **Course Learner Group:** Workers as Research Subjects - A Vulnerable Population
- **Stage:** Stage 1 - Basic Course
  
- **Record ID:** 24366811
- **Report Date:** 04-Dec-2017
- **Current Score\*\*:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	14-Sep-2017	4/4 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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Completion Date 01-Aug-2017  
Expiration Date 31-Jul-2020  
Record ID 20020375

This is to certify that:

**Jared Russell**

Has completed the following CITI Program course:

<b>IRB Additional Modules</b>	(Curriculum Group)
<b>Social, Behavioral and Education Sciences</b>	(Course Learner Group)
<b>1 - Basic Course</b>	(Stage)

Under requirements set by:

**Auburn University**



Verify at [www.citiprogram.org/verify/?w6dbce566-1596-444d-bf7b-e7959927d7e0-20020375](http://www.citiprogram.org/verify/?w6dbce566-1596-444d-bf7b-e7959927d7e0-20020375)



Completion Date 01-Aug-2017  
Expiration Date 31-Jul-2020  
Record ID 19282062

This is to certify that:

**Jared Russell**

Has completed the following CITI Program course:

<b>IRB Additional Modules</b>	(Curriculum Group)
<b>Research in Public Elementary and Secondary Schools</b>	(Course Learner Group)
<b>1 - Basic Course</b>	(Stage)

Under requirements set by:

**Auburn University**



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