EXTRACURRICULAR PARTICIPATION AND SELF-CONCEPT IN RURAL ELEMENTARY STUDENTS: A CAUSAL-COMPARATIVE STUDY

by

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Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Liberty University
2017
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2017

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ABSTRACT

The purpose of this ex post facto, causal comparative study was to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development by investigating the overarching research question, Is there a statistically significant difference between mean scores for self-concept (academic, social, and overall) based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation) in rural elementary students? The relationship of extracurricular participation to positive outcomes in adolescents has been established in prior research. This study is significant because it ameliorates the paucity of research on such variables with rural elementary students. A convenience sample from three North Georgia elementary schools was used. Students completed the Piers-Harris Children’s Self-Concept Scale, Second Edition. Scores were compared to students’ extracurricular portfolios for the previous 6 months. Data were collected over a period of 3 weeks at the schools and extracurricular facilities. An ANOVA using SPSS was conducted for each null hypothesis to obtain results indicating a significant relationship between extracurricular portfolio and self-concept scores.

Keywords: extracurricular participation, self-concept, elementary, rural
Acknowledgements

First, I acknowledge my Lord and Savior, Jesus Christ, for making this dissertation possible. Without Him, I can do nothing.

Second, I could not have gotten this far without my husband, Ben, who provided much encouragement and support. Without him, I can do little.

Third, I acknowledge the members of my committee, Dr. Roger Stiles, Dr. Scott Ramsey, and Dr. Glenna Dunn. They have made this dissertation better and the process smoother. I do not think I could have asked for a better chair than Dr. Stiles. I thank the committee members from the bottom of my heart, and I hope my work is worthy of their investment in me.

Fourth, I acknowledge those who facilitated my completion of the study by filling out surveys or providing access to information. From students and parents to school personnel and community members, people were kind enough to assist me with this project. I thank them from the bottom of my heart as well.

Finally, I thank my family and friends who have encouraged me along the way, some of whom prevented me from giving up without even knowing they were doing so.
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List of Abbreviations

Analysis of Variance (ANOVA)

Extracurricular Participation Portfolio (EPP)

National Center for Education Statistics (NCES)

No Child Left Behind (NCLB)

Positive Youth Development (PYD)

Socioeconomic Status (SES)
CHAPTER ONE: INTRODUCTION

Overview

The purpose of this causal comparative study was to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development by investigating the overarching research question, Is there a statistically significant difference between mean scores for self-concept (academic, social, and overall) based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation) in rural elementary students? Self-concept was measured with the Piers-Harris 2, while extracurricular portfolio was assessed using rosters from activity sponsors. After presenting relevant background information, this chapter discusses the problem and purpose statements in which the research was grounded, as well as the study’s significance. Research questions and null hypotheses are then delineated, along with definitions of pertinent terms.

Background

To see a demonstration of the significance of extracurricular activities, one only need attend a Friday night high school football game. From the players, cheerleaders, pep squad, band members, and concession stand workers, to the coaches, fans, and family members, entire communities may be involved in such an event. Largely because of this prominence of extracurricular activities for high school students, a great deal of literature exists on extracurricular participation and its relationships with various outcomes for adolescents. One such outcome is self-concept, shown through decades of research to be significant in numerous areas of human functioning (Harter, 2012; Marsh, 1990; Scott & Santos de Barona, 2011). However, comparatively little research examines these variables in elementary students, particularly those from rural areas (Denault & Déry, 2014; Metsälä & Pulkkinen, 2014).
Questions remain as to whether extracurricular activities are helpful to younger students. Historical, social, and theoretical factors build a case for additional research to answer these questions.

Extracurricular activities have historically been a part of the American landscape for adolescents. Before 1900, school-based extracurricular activities were criticized and discouraged by educators as distractors from academics (Marsh & Kleitman, 2002). This changed, with educators later arguing in favor of extracurricular activities as helpful with life skills and academics. Educators changed their views because of extracurricular activities’ structured schedules, adult support of participants, potentially positive peer groups, opportunities to build skills not covered in the classroom, and chances to work on tasks that students perceived as practical and meaningful (Fredricks, 2012; Marsh & Kleitman, 2002). Since the 1980s, a large body of research has accumulated on such school- or community-sponsored activities demonstrating connections between extracurricular involvement and positive developmental outcomes (Fredricks, 2011; Fredricks & Eccles, 2006; Fredricks & Simpkins, 2013; Guèvremont, Findlay, & Kohen, 2014; Ludden, 2011; Marsh & Kleitman, 2002; Metsäpelto & Pulkkinen, 2014). Most research has been conducted with adolescents, who average five hours per week of extracurricular participation (Fredricks, 2012).

More recently, extracurricular activities have been available to students of middle and elementary school age. National statistics indicate that over 80% of students in kindergarten through grade 12 participate in extracurricular activities (Fredricks, 2012; Mahoney, Harris, & Eccles, 2006). As larger numbers of elementary students participate, these activities are becoming a more significant part of their social context, life experience, and developmental process (Denault & Déry, 2014; Metsäpelto & Pulkkinen, 2014). In addition, researchers have long known that elementary students differ from adolescents in terms of their worries, abilities,
social relationships, and emotional or behavior problems (Mash & Barkley, 2014). Researchers have studied extracurricular involvement among younger students (Adachi-Meija, Chambers, Li, & Sargent, 2014; Bohnert, Aikins, & Arola, 2013; Covay & Carbonaro, 2010; Dimech & Seiler, 2011; Fredricks & Simpkins, 2013; Lagacé-Séguin & Case, 2010; Poulin, McGovern-Murphy, Chan, & Capuano, 2012; Simoncini & Caltabiano, 2012; Super, Hermens, Verkooijen, & Koelen, 2014), but there is a paucity of research as compared to research on adolescents (Denault & Déry, 2014; Metsäpelto & Pulkkinen, 2014). This lack of research on elementary students leaves unanswered questions about how extracurricular participation may affect them.

Similar questions remain about rural students, since little research has been done with regard to their extracurricular involvement as well (Ferris, Oosterhoff, & Metzger, 2013). This lack of research could be problematic. Inadequate funding in rural areas may limit what extracurricular activities schools and communities offer, when leisure time options for youth in rural areas are already limited in comparison to urban areas (Edwards, Kanter, & Bocarro, 2011). Rural youth may not have the option of making up for a lack of such offerings on their own, since poverty rates are high in many rural communities (Strange, 2011). There is evidence that specific types of extracurricular activities contribute to positive educational and developmental outcomes for rural students (Ferris et al., 2013). However, without further research on types of extracurricular participation among rural youth, decision makers could unknowingly cut the most beneficial extracurricular programs due to funding problems (Kronholz, 2012).

One positive outcome associated with extracurricular involvement is self-concept (Blomfield & Barber, 2009, 2011; Bohnert, Fredricks, & Randall, 2010). Self-concept, one’s perception of oneself (Shavelson, Hubner, & Stanton, 1976), or “the cognitive representation an individual has of him- or herself” (Taylor, Davis-Kean, & Malanchuk, 2007, p. 131), is
significant both to psychology and education and has a history that has evolved alongside that of extracurricular activities (Pajares & Schunk, 2002). Psychologists have come to see a positive self-concept as a key to good psychological health (Pajares & Schunk, 2002; Shavelson et al., 1976). In spite of this, little to no time has been devoted to self-concept in the classroom environment during the 21st century due to a primary focus on standardized testing (Styron & Styron, 2011).

This lack of emphasis on self-concept may have affected society in terms of children’s development. To understand how children deal with “life’s tasks and challenges” (Pajares & Schunk, 2002, p. 4), one must first understand children’s views of self, because self-beliefs affect children’s choices (Pajares & Schunk, 2002). Some have looked to extracurricular activities as possible self-concept builders instead of the classroom, but limited extracurricular options for many rural students may make participation inaccessible to them (Edwards et al., 2011). In adolescents, positive self-concept is already associated with extracurricular participation (Blomfield & Barber, 2009, 2011), but building a good self-concept early in life may mean a better chance of having a good self-concept throughout the lifespan (Pajares & Schunk, 2002; Schmidt, 2006). Because of these factors, more knowledge about the relationship of extracurricular participation and self-concept in younger, rural students is needed.

There are several theories that point to the potential of extracurricular activities to affect students’ lives in a positive way. One of these is self-concept theory. This theory posits that one’s perception of oneself is shaped by interactions with environment, other people, and with one’s own learning (Keyes & Ryff, 2000; Kinch, 1963). Participating in extracurricular activities brings one into different situations and interactions, thereby becoming a possible self-concept shaper. Another related theory is Gibson’s theory of ecological development. This theory also looks at self and environment with emphasis placed on environmental affordances, or
opportunities presented by the environment for growth and learning (Miller, 2011). The Positive Youth Development (PYD) approach has grown out of Gibson’s theory. Proponents of PYD believe that youth can be influenced to lead productive, positive lives through their immersion in environments with affordances that foster good choices and goal setting, such as extracurricular activities (Blomfield & Barber, 2010; Ferris et al., 2013; Metsäpelto & Pulkkinen, 2014). In line with these views, results of prior research support theories that extracurricular activities are a positive context for adolescents (Balaguer, Atienza, & Duda, 2012; Blomfield & Barber, 2009, 2011; Bohnert et al., 2013). Ferris, Oosterhoff, and Metzger (2013) added that such a context may be particularly important for rural youth, who may benefit from extracurricular involvement in ways unique to them. A third related theory is Erikson’s theory of psychosocial development. This approach explains that children may react differently from adolescents to situations due to their unique developmental stage (Soeker, 2014). Within the middle childhood stage, industry versus inferiority, children tend to “evaluate themselves based on . . . standards set by others” and have a strong desire to please adults (Muro, Stulmaker, & Rose, 2012, p. 12). These traits could mean that pressure to participate or perform to a certain standard in extracurricular activities could cause children to suffer mentally and emotionally (Isabella & Diener, 2010). Therefore, questions remain as to whether extracurricular participation is helpful or harmful to children (Denault & Déry, 2014; Metsäpelto & Pulkkinen, 2014).

**Problem Statement**

The relationships between extracurricular participation and numerous positive attributes, such as achievement and aspects of social development, among adolescents are well researched (Blomfield & Barber, 2009, 2011; Ferris et al., 2013; Fredricks, 2012). However, few studies explore the extracurricular involvement of elementary students, even with the larger part these activities now play in their lives. A few scholars have studied this topic. For example, Covay
and Carbonaro (2010) explored relationships of extracurricular participation to noncognitive skills for elementary students. Lagacé-Séguin and Case (2010) found that extracurricular participation, along with parental expectations, predicted higher levels of well-being for elementary school children. Poulin, McGovern-Murphy, Chan, and Capuano (2012) found that participation in organized activities during kindergarten was associated with greater social competence in first grade. In spite of such studies, scholars cite the lack of research on extracurricular participation among elementary students and rural students, recommending further research on these populations (Denault & Déry, 2014; Ferris et al., 2013; Metsäpelto & Pulkkinen, 2014). This means that the literature has not adequately dealt with the issue of whether extracurricular participation is helpful or harmful to children. Therefore, the problem is an imbalance in extracurricular activity research that needs to be corrected in the area of rural elementary students.

**Purpose Statement**

In light of the need for more research on rural elementary students’ extracurricular involvement and related variables, the purpose of this causal-comparative study was to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development. This was accomplished by comparing self-concept scores (academic, social, and overall) on the Piers-Harris Children’s Self-Concept Scale, Second Edition (Piers-Harris 2) of rural North Georgia elementary students (Piers & Herzberg, 2002). These were compared based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation). The independent variable, extracurricular portfolio, was operationally defined as whether sponsors identified a participant as having participated in activities classified as sports only, non-sports only, both activity types (mixed activity types), or as having participated in no extracurricular activities
during the past six months (Denault & Déry, 2014; Denault & Poulin, 2009). These portfolios comprised the four levels of the independent variable. An extracurricular activity was defined as taking place before or after school hours, being sponsored by school or community agencies, having an adult in charge, holding regular meetings, having specific goals or objectives, and having a structure in place that facilitates the meeting of these goals (Covay & Carbonaro, 2010; Fawcett, Garton, & Dandy, 2009). The dependent variables, academic self-concept, social self-concept, and overall self-worth, were defined as the score from the Piers-Harris 2 for these aspects of self-concept, with higher scores indicating higher self-concept (Piers & Herzberg, 2002). Three rural schools in a north Georgia school district with children in grades three through five participated in the study. Research with adolescents opened the possibility that self-concept may be influenced by extracurricular activity types (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011), but research was necessary to determine whether this was the case for rural elementary students.

Significance of the Study

In helping to fill the identified literature gap, this study has potential significance to the field of education in terms of both theory and practice. First, gaps in Gibson’s ecological theory of perceptual development and self-concept theory lend themselves to testing the interaction of the two theories (Gorrell, 1990; Harter, 2012; Vogl & Preckel, 2014; Wouters, Colpin, Van Damme, De Laet, & Verschueren, 2013). Erikson’s theory makes the conceptual framework complete in its inclusion of a child’s developmental phase (Muro et al., 2012). The results of this study provided a reasonable explanation for the development of self-concept apart from reciprocal determinism, to which some object (Pajares & Schunk, 2002), thus contributing to the knowledge base on these theories. Second, this study contributed to educational research via its investigation of extracurricular participation among rural elementary students, an understudied
group. Third, since this study was based on similar studies with adolescents (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011), there was a context within which to place the results.

Finally, the results of this study could be utilized by educational practitioners. Due mainly to economic factors, difficult decisions must sometimes be made with regard to whether extracurricular programs are worth the investment, and if so, which programs should be prioritized (Edwards, Bocarro, & Kanters, 2013). This is particularly the case in rural areas where there is a high level of poverty (Kronholz, 2012; Strange, 2011). Such decisions currently may be made with little or no data as support. With research results in place, creators of policies and procedures for extracurricular activities in schools and communities could make better-informed decisions that would more likely be in the best interest of the participating children.

Research Questions

Research questions for this study were as follows:

**RQ1:** Is academic self-concept different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**RQ2:** Is social self-concept different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**RQ3:** Is overall self-worth different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

Null Hypotheses

Null hypotheses for this study were as follows:
**H₀₁:** There is no statistically significant difference in academic self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**H₀₂:** There is no statistically significant difference in social self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**H₀₃:** There is no statistically significant difference in overall self-worth as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**Definitions**

Definitions of terms pertinent to this study were as follows:

1. *Academic self-concept* - “a person’s perception of him or herself as a learner in an academic or school environment” (Joshi & Srivastava, 2014, p. 78).

2. *Extracurricular activity* - an enterprise that takes place before or after school hours, is sponsored by school or community agencies, has an adult in charge, holds regular meetings, has specific goals or objectives, and has a structure in place that facilitates the meeting of these goals (Covay & Carbonaro, 2010; Fawcett et al., 2009).

3. *Overall self-worth* - a “self-evaluation . . . by the individual of his or her value as a person . . . that is, the global sense of oneself [as distinct from merely] the sum of [domain-specific areas of self-concept] targeted in a questionnaire” (Balaguer et al., 2012, p. 625).

4. *Participation* - being listed as an active member of an extracurricular activity on the official roster within the last six months (Denault & Déry, 2014; Denault & Poulin, 2009).
5. *Portfolio* - the type(s) of extracurricular activities, as identified by parents and sponsors, in which a student has participated during the previous six months (Denault & Déry, 2014; Denault & Poulin, 2009), with identified portfolio categories being sports only, non-sports only, both activity types (mixed activity types), or no participation (no extracurricular activities) (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011).

6. *Positive Youth Development (PYD)* – the perspective that emphasizes “the importance of organized activities in providing assets during times of relative plasticity” (Ferris et al., 2013, p. 1); assets are intended to direct young people toward increasing “positive behaviors such as school commitment and achievement, and reducing negative behaviors such as drug and alcohol use” (Blomfield & Barber, 2010, p. 108); PYD approach “specifies the broad goal of extracurricular activities as promoting positive development for children” (Metsäpelto & Pulkkinen, 2014).

7. *Rural* – in reference to general populations or areas, “all population, housing, and territory not included within an urban area” (United States Census Bureau, 2015), or in reference to school districts, a school district designated as rural according to National Center for Education Statistics (NCES) locale codes (Governor’s Office of Student Achievement, n.d.).

8. *Self-concept* - one’s perception of oneself (Shavelson et al., 1976), or “the cognitive representation an individual has of him- or herself” (Taylor et al., 2007, p. 131).


10. *Social self-concept* - one’s perception of his or her general social competence (Harter, 2012).
11. *Socioeconomic status (SES)* – indicative of whether a student is living in poverty; within educational research, may be measured in students by free or reduced price lunch status, which has been found to correlate significantly with numerous other community SES indicators (Nicholson, Slater, Chriqui, & Chaloupka, 2014).

12. *Urban* – in reference to general populations or areas, “densely settled cores of census blocks with adjacent densely settled surrounding areas. When the core contains a population of 50,000 or more it is designated as an *urbanized area*. Core areas with populations between 25,000 and 50,000 are classified as *urban clusters*” (National Center for Education Statistics, n.d.), or in reference to school districts, a school district within the city, suburb, or town categories according to National Center for Education Statistics (NCES) locale codes (Governor’s Office of Student Achievement, n.d.).
CHAPTER TWO: LITERATURE REVIEW

Overview

Both extracurricular participation and self-concept play significant roles in the lives of children. Within this chapter, the groundwork is laid for research on these factors in rural elementary students. Such study is based on the conceptual framework of an interaction among self-concept theory, Gibson’s ecological theory of perceptual development, and Erikson’s theory of psychosocial development. It is also grounded in the literature on both extracurricular involvement and self-concept. Extracurricular participation research has largely focused on urban and suburban adolescents. Self-concept is often studied in the field of psychology or the classroom, but less often in relationship to extracurricular involvement. This means that studies on extracurricular participation and self-concept in rural elementary students are essential to fill a gap in the literature on this understudied population. Also, such research is necessary for the practical purpose of providing data to decision-makers on extracurricular activities in rural schools and communities.

Theoretical Framework and Conceptual Model

Further research on extracurricular participation and self-concept in rural elementary students is grounded firmly in theory. Since research on extracurricular participation has often used an ecological approach (Farb & Matjasko, 2012), a conceptual framework that includes self-concept theory, Gibson’s ecological theory of perceptual development, and Erikson’s theory of psychosocial development provides a more complete picture of how self and environment interact.

Self-Concept Theory

Self-concept theory posits that people’s perceptions of themselves are shaped by their interactions with situations, social feedback, perceptions, and behaviors (Keyes & Ryff, 2000;
The theory stems from the work of psychologists such as William James, whose theory of self included self-worth (Shapiro, Moffett, Lieberman, & Dummer, 2008). Within self-concept theory, the construct of self-concept is defined as “the cognitive representation an individual has of him- or herself” (Taylor et al., 2007, p. 131). As varying contexts are encountered, these representations can change (Kinch, 1963). Even the group to which one compares oneself can play a role in self-concept (Wouters et al., 2013).

Because people may think of themselves differently in different contexts, theorists often use a multidimensional model in describing self-concept (Scott & Santos de Barona, 2011). This in part accounts for the theory’s inclusion of distinct aspects of self-concept along with the separate construct of overall self-worth. Within the multidimensional model, a hierarchical structure for self-concept includes overall self-worth at the top, with self-concept becoming “increasingly differentiated” at the bottom (Scott & Santos de Barona, 2011). This hierarchical structure is shown in more detail in Figure 1.

![Hierarchical Structure of Self-Concept](chart.png)

*Figure 1. Chart of hierarchical structure of self-concept. Overall self-worth, the general opinion of the self, is at the top. Domains of life, such as academic and social, are next categories. Specific subcategories under domains are listed at the bottom. Self-concept ranges from general opinion of self to opinion of self in more specific contexts. Adapted from “Self-Concept: Validation of Construct Interpretations,” by R.J. Shavelson, J. J. Hubner, and G. C. Stanton, 1976, *Review of Educational Research, 46*(3), 407-441. Copyright 1976 by Richard J. Shavelson. Adapted with permission (see Appendix E).*
The hierarchical structure of self-concept has been validated through research into academic, social, emotional, and physical areas of functioning (Harter, 2012; Marsh, 1990; Scott & Santos de Barona, 2011). Because the consequences of high or low self-concept may affect students for good or ill (Kenny & McEachern, 2009), educational researchers have investigated how best to build self-concept in students (McInerney, Cheng, Mok, & Lam, 2012). Scott and Santos de Barona (2011) considered how best to structure schools so that self-concept would remain stable during the transition from elementary to middle school. They found that not having a separate middle school or junior high transition at the end of fifth grade actually led to a higher, more stable self-concept over that period of time (Scott & Santos de Barona, 2011). These researchers aligned with Preckel, Niepel, Schneider, and Brunner (2013), who believed that “fostering . . . self-concepts [is a] central educational goal” (p. 1165).

One reason that self-concept is so critical is its possible influence on behavior (Kinch, 1963). Students with higher self-concepts may be more willing than others to take risks and try new activities, which could bolster their self-concepts even further. Conversely, students with lower self-concepts might be afraid to try a new activity in the first place. This could lead those students to feel even worse about themselves. Thus, one’s self-concept may impact one’s behavior, which may impact self-concept. This may continue in a cyclical fashion. However, a conceptual framework that involves only self-concept and behavior is incomplete. Hence, the inclusion of Gibson’s ecological theory of perceptual development.

**Ecological Theory of Perceptual Development**

Gibson’s ecological theory of perceptual development states that children learn based on their interactions with affordances, or opportunities for learning in a child’s environment (Gibson, 2003; Miller, 2011). This theory examines what children learn, how they learn it, how these factors are impacted by a child’s environment, and how children’s learning impacts their
thoughts and perceptions. In this sense, it is similar to self-concept theory due to the constant interactions among people, environment, and behaviors (Keyes & Ryff, 2000; Kinch, 1963). The difference is Gibson’s emphasis on affordances (Miller, 2011). To take advantage of affordances, children must be able to process information from the environment in such a way that they recognize them (Gibson, 2003). Understanding what constitutes an affordance occurs as children explore new places and situations (Gibson, 2003).

What a child perceives as an affordance varies with whether he believes he can act effectively. Developmental stage, learned skills, physical and emotional states, recent experiences, and even intentions can affect this belief (Witt & Riley, 2014). For example, a child not yet walking cannot use an affordance that would require running (Gibson, 2003). A child who is hungry, tired, or discouraged may perceive him- or herself less capable of acting than at another time (Witt & Riley, 2014). One study found that participants who had just thrown a heavy ball perceived a target as further away if intending to throw again (Witt & Riley, 2014).

Gibson’s theory also includes differentiation, or the narrowing of attention to information pertinent to finding an affordance (Gibson, 2003). This requires selective attention, which influences what affordances a child perceives (Witt & Riley, 2014). How a child responds to affordances then determines what is learned, or new perceptions (Gibson, 2003). This means that the same environment or situation is capable of offering different affordances to different people or at different times.

The positive youth development (PYD) approach stems from Gibson’s theory. Proponents of PYD hope to influence the development of adolescents by placing them in environments conducive to producing positive outcomes by taking the perceptual learning phenomenon, or the “education of attention” (Witt & Riley, 2014, p. 1363), in a positive direction. The underlying philosophy is that the more positive the environment, the more
positive learning and perceptions result. Supporting the idea that children’s behaviors are shaped by their environments was a study by Morgante (2013), in which materials and surfaces provided for play helped to determine the types of play in which children engaged. There are also numerous studies specifically on extracurricular programs providing an environment for positive youth development (Fredricks & Simpkins, 2013; Guèvremont et al., 2014; Ramey & Rose-Krasnor, 2012; Tsang, Hui, & Law, 2012).

**Erikson’s Theory of Psychosocial Development**

Erikson’s theory of psychosocial development is a theory that describes human development as a series of stages (Myers, 2014). In each stage, a unique conflict emerges. For example, during the first stage of life, infants struggle with the conflict of trust versus mistrust. If their needs are met consistently by their parents, infants usually gain a basic sense of trust that the world is a safe place. If not, mistrust, with accompanying anxiety, emerges (Myers, 2014). In the second stage, toddlers experience the conflict of autonomy versus shame and doubt while they learn self-sufficient behaviors such as problem solving, choosing clothing, and toilet training. If parents balance encouraging autonomous behavior with being appropriately protective of their offspring, their children will start to see themselves as capable of handling life’s problems. On the contrary, if parents are overly critical of their children’s attempts, then children develop a sense of shame and doubt, accompanied by a fear of trying new activities (Myers, 2014).

When children are in elementary school, Erikson posits that the conflict is industry versus inferiority (Soeker, 2014). Children at this stage begin to try more complex tasks that require skill, such as math or baseball. This is also the stage at which more people outside the family, such as different peer groups, teachers, or coaches, enter children’s lives (Isabella & Diener, 2010). Children may very much want to please those people while at the same time pursue more
varied interests (Muro et al., 2012). If they experience success in an area, they begin to develop a sense of competence that contributes to their self-confidence. They may also learn to cope successfully with limitations and losses at times. If they experience consistent failure or cannot live up to others’ expectations, they may feel inferior and lack confidence (Isabella & Diener, 2010; Soeker, 2014).

Erikson’s industry versus inferiority stage is therefore important in a study of elementary-aged children and how they may be affected by life experiences. It is distinct from the identity versus role confusion conflict experienced during adolescence, in which teenagers try to discover a sense of who they are and what they believe as individuals (Myers, 2014). If adolescents are successful in forging a strong sense of identity, this will be helpful in making life choices such as what career path to take. If not, teens may be confused about who they are and what they want, reluctant to commit to a course of action and uncertain even if they do. According to Erikson, various stages with their accompanying new conflicts continue throughout the lifespan (Myers, 2014).

**Conceptual Model**

The first two theories in the conceptual model, self-concept theory and Gibson’s theory, share commonalities but differ in emphasis. The former focuses on the individual and the latter on environment. One question remaining for researchers is how the two theories may interact. Illustrating how the theories relate could compensate for perceived deficits in self-concept theory, in particular. Gorrell (1990), for example, stated that “much of the problem” with self-concept theory is its neglect of environmental influences (p. 76). Also, the idea that context and reference group play a role in self-concept supports a conceptual model incorporating the two theories (Harter, 2012; Vogl & Preckel, 2014; Wouters et al., 2013). The interaction of self and environment within the two theories is depicted in Figure 2.
Another idea that lends credence to these theories interacting is that of self-standards as they relate to subjective change (Keyes & Ryff, 2000). An individual judges an environment or experience as good or bad based on whether he perceives himself to have declined or improved as a result (Keyes & Ryff, 2000). The decision as to whether decline or improvement has occurred is based on one’s self-standards. For example, when one loses the ability to walk as a result of an accident, one may perceive oneself as having declined in mobility; however, whether this is good or bad news will depend on whether one’s self-standards included walking as significant to quality of life. If they did, then the perception is that losing the ability to walk is bad, and negative emotions will result. These new perceptions could cause one to view situations and affordances differently than before. For example, climbing the stairs may no longer be an alternative to an elevator when one can no longer walk. This means that perceptions of self and environmental affordances change with context, then again affect responses. This continues in a cyclical fashion. The interaction of the first two theories provides a rationale for studying individuals in their contexts, such as school or extracurricular activities.

Figure 2. Schematic of self and environment interaction in terms of self-concept theory and Gibson’s ecological theory of perceptual development. Constant interplay among the individual, behavior, and environment mean that the theories have reciprocal effects. One’s environment provides affordances, leading to a response from the individual in the form of behaviors. These affect one’s worldview and self-concept. One’s perceptions in turn affect one’s environment and its resulting future affordances. This continues in a circular fashion.
The third theoretical component of this conceptual model is Erikson’s theory. It is included because the self and environment interact throughout the lifespan, and this interaction is interpreted differently at each stage of life. For example, the lens of adolescence, with its conflict of identity versus role confusion, is different from the lens of middle childhood. It cannot be assumed that life experiences will be interpreted the same way by these two groups. This provides a rationale for studying elementary students separately from adolescents in terms of how they may be affected by extracurricular activities (see Figure 3).

Some may note the similarity of this conceptual framework to Bandura’s reciprocal determinism, another theory that includes interactions among the person, behavior, and environment (Baird, 2010). However, reciprocal determinism indicates that one’s personality is entirely determined by these interactions (Baird, 2010), and this is insufficient to explain why people think or behave as they do. Reciprocal determinism posits that people will choose only
those particular behaviors that have been reinforced in the past, but people may sometimes choose a behavior that has not been reinforced in their past experiences or observances. It is possible that other elements besides those in the reciprocal determinism model affect people’s perceptions and actions. A model with more flexibility is warranted. This study’s conceptual framework focuses on the interaction of humans and environments in terms of self-concept, learning and developmental stage, but it does not propose to account for all thoughts and behaviors.

**Related Literature**

The academic literature on extracurricular participation and self-concept includes information about types and measurements of each, along with studied populations, related variables, and research designs and approaches. Such information places additional studies of these variables within the context of previous research. The literature also demonstrates the need for further investigation of extracurricular participation and self-concept with rural elementary students.

**Extracurricular Participation**

Due to the prevalence of extracurricular activities among youth, a large body of research exists on the topic. Such literature defines extracurricular activities as those sponsored by school or community agencies (Covay & Carbonaro, 2010; Fawcett et al., 2009). These activities have an adult in charge, regular meetings, specific goals or objectives, and a structure in place that facilitates the meeting of these goals (Covay & Carbonaro, 2010; Fawcett et al., 2009; Poulin et al., 2012; Rose-Krasnor, Busseri, Willoughby, & Chalmers, 2006). How participation is measured is only the first factor to consider in undertaking research on extracurricular involvement (Bohnert et al., 2010; Farb & Matjasko, 2012). Types of participation, sponsors of activities, and populations previously studied should also be taken into account.
**Measures.** Extracurricular participation researchers recommend various ways to keep track of it, but studies have generally included intensity, or amount of time spent, and/or breadth, or activity types (Bohnert et al., 2010). In testing the over-scheduling hypothesis, or the idea that too much time on extracurricular activities could have an adverse effect on academic performance, Fredricks (2012) measured intensity. Adachi and Willoughby (2014) chose to focus on intensity, investigating the relationships of sports participation frequency and enjoyment to adolescents’ self-esteem over time. In terms of breadth, Knifsend and Graham (2012) found that involvement in a moderate number of activities was related to positive school-related affect and academic outcomes. Denault and Poulion (2009) examined the relationships between breadth and intensity of extracurricular participation and the outcomes of “academic orientation, risky behaviors, internalizing problems, and civic development” in adolescents from seventh through eleventh grades (p. 1199). Studies have found different outcomes based on intensity, breadth, or both (Bohnert et al., 2010; Farb & Matjasko, 2012). Researchers recommend looking at one or both of these aspects of extracurricular participation to gain a more exact picture of participation than the simple participant versus non-participant categories of early research in this area (Bohnert et al., 2010; Farb & Matjasko, 2012).

One issue with previous research including intensity and/or breadth had to do with how they were measured. This was often accomplished via self-reported surveys for adolescents or parent surveys for younger children. Studies conducted by Covay and Carbonaro (2010), Denault and Poulion (2009), Lagacé-Séguin and Case (2010), and Simoncini and Caltabiono (2012) used surveys. Because of the self-reporting aspect of the surveys, it was not possible to gauge the accuracy of intensity or breadth of participation. Students or parents may not have been completely truthful or may not have accurately recalled the amount of time or number of activities in which a child had participated in the months preceding the surveys. Researchers
have attempted to control this problem through assisted recall techniques (Denault & Poulin, 2009), but it is not possible to prevent it completely. For this reason, a study that verifies students’ participation in extracurricular activities with actual rosters from those activities constitutes an improvement upon existing research on intensity and/or breadth of participation.

**Types.** In terms of activity types, Ferris et al. (2013) focused on breadth of participation and its relationship to grade point average and problem behavior. Blomfield and Barber (2009) also focused on the aspect of breadth in their research, examining its relationship to overall self-worth, academic self-concept, and social self-concept. A third study focusing on breadth by Kort-Butler and Hagewen (2011) looked at whether the types of adolescents’ extracurricular involvement influenced their self-esteem. Studies involving breadth often investigated whether physical activity or sports participation made a difference in the lives of students. Some looked at sports alone, while others examined sports compared to other activities or non-participation (Adachi & Willoughby, 2014; Blomfield & Barber, 2009, 2011; Edwards et al., 2011; Eime, Young, Harvey, Charity, & Payne, 2013; Guèvremont et al., 2014; Kort-Butler & Hagewen, 2011; Simpkins, Vest, & Becnel, 2010). This emphasis placed on sports could be due to the value that communities and families place on athletics participation; for example, Ashbourne and Andres (2015) found that athletics were encouraged by parents who viewed sports as an opportunity for their children to enhance their competition and networking skills.

With regard to student outcomes, studies on sports participation have garnered mixed results. For example, Guèvremont, Findlay, and Kohen (2014) found associations with different outcomes for students who participated in sports only versus non-sports or mixed activity types. Students who participated in sports only were more likely to have failed a recent course than were students who participated in other activity types (Guèvremont et al., 2014). Viau and Poulin (2014) found a positive association between participation in team sports during
adolescence and “problematic alcohol use” in early adulthood (p. 655). However, as Kotschwart and Stahler (2016) pointed out, “Participation in sports has long been shown to have measurable positive effects on other aspects of life” (p. 118), such as academic achievement, health, social networks, and people skills. In particular, these researchers specified advantages for females such as increased college enrollment and even “long-term economic benefits” associated with sports involvement (p. 117). Another positive outcome associated with sports participation was a greater sense of belonging at school for adolescents from immigrant families (Camacho & Fuligni, 2015). Such feelings may help students stay connected to their school experience, persisting to graduate high school rather than dropping out (Harris & Kiyama, 2015).

Researchers have recommended that more than one activity type be included in studies of students in middle childhood, approximately grades two through seven (Metsäpelto & Pulkkinen, 2012, 2014). Specific activities offered may vary by community (Ludden, 2011; Sharp, Tucker, Baril, Van Gundy, & Rebellon, 2015), so researchers have grouped extracurricular involvement of adolescents by portfolios of sports only; non-sports activities only; mixed activity types participation, including sports and other types of activities; and no participation (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011). Numerous researchers have found significant differences in outcomes based on activity portfolio (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011; Viau & Poulin, 2014). Few such studies looked at younger children, so “relatively little is known about what kind of activities children are involved with in middle childhood” (Metsäpelto & Pulkkinen, 2014, p. 22). Denault & Déry (2014) pointed out the lack of “sufficient attention” to activity participation in younger children (p. 8).

Sponsors. Studies have shown that both school- and community-sponsored extracurricular activities were connected with benefits for young people (Fredricks, 2011; Fredricks & Simpkins, 2013; Guèvremont et al., 2014; Ludden, 2011; Metsäpelto & Pulkkinen,
For example, adolescents who participated in school-based activities exhibited higher levels of healthy adjustment than non-participants (Simpkins, Vest, Delgado, & Price, 2012). Fredricks and Eccles (2006) stated that organized out-of-school activities were associated with higher academic achievement, less risk behavior, and greater psychological health. Research by Guèvremont et al. (2014) found that both in-school and out-of-school activities were associated with such socioemotional outcomes as lower emotional anxiety, higher pro-social behavior, and higher self-image, even after controlling for other variables. Both in-school and out-of-school activities were associated with better academic performance (Guèvremont et al., 2014). Such research indicates a need to include both kinds of extracurricular involvement in research on possible student outcomes (Fredricks, 2011).

**Populations studied.** A great deal of research on extracurricular involvement has targeted its potential effects on adolescents, but relatively little has focused on elementary or rural students.

**Adolescents.** The emphasis on studying extracurricular involvement in adolescents may be due to the emphasis placed on these activities in high school. Students may spend a lot of time in extracurricular activities and even earn scholarships for participating. The outcomes associated with extracurricular participation range from behavior and academic performance to cognitive and affective constructs. For example, in younger adolescents, participation in 4-H was correlated with better self-regulation (Mueller et al., 2011). In another example, Denault and Poulin (2009) found that higher levels of participation in seventh grade indicated higher levels of commitment to school and more positive societal values in eleventh grade (p. 1199). Fredricks (2012) found relationships between low to moderate amounts of extracurricular involvement and outcomes such as higher grade point averages, higher math achievement scores, greater educational expectations, and greater educational status. Ferris et al. (2013) found
relationships between extracurricular involvement and higher grade point average or less problem behavior, depending upon activity portfolio. Specifically, more church involvement was associated with higher grades and less problem behavior, while sports and school clubs were associated with higher grades only (Ferris et al., 2013). Blomfield and Barber (2009) found relationships between extracurricular activity participation portfolio type and higher overall self-worth, higher academic self-concept, and higher social self-concept. Likewise, Kort-Butler and Hagewen (2011) found that “changes in both the initial level of self-esteem and the growth of self-esteem over time were significantly influenced by the type of extracurricular activity portfolio” (p. 568). Still others have obtained mixed results with outcomes relating to risk-taking behaviors in adolescent samples (Adachi-Meija et al., 2014; Guèvremont et al., 2014; Ludden, 2011). The literature commonly regards extracurricular activities as “important contexts of development” for youth (Bohnert et al., 2013, p. 57).

**Elementary students.** Increased options for extracurricular participation have become available to elementary-aged students, so a few studies of extracurricular involvement have focused on them (Covay & Carbonaro, 2010; Dimech & Seiler, 2011; Lagacé-Séguin & Case, 2010; Poulin et al., 2012; Simoncini & Caltabiano, 2012). Covay and Carbonaro (2010) investigated the relationship of extracurricular participation in children in grades kindergarten through three to socioeconomic status and “noncognitive skills [such as ] . . . task persistence, independence, following instructions, working well within groups, dealing with authority figures, and fitting in with peers” (p. 21). These researchers found extracurricular participation to be significantly and positively related to socioeconomic status and noncognitive skills (Covay & Carbonaro, 2010). In another example, Simoncini and Caltabiano (2012) studied the relationship of extracurricular activity participation and behavior scores in children aged five to nine. They found that children who participated in “two or more” extracurricular activities exhibited better
behavior scores than non-participants (p. 35). Lagacé-Séguin and Case (2010) found that extracurricular participation and parental expectations predicted higher levels of well-being and academic competence in school children. Denault and Déry (2014) recently found a connection between participation in extracurricular activities and better social skills, which in turn predicted fewer behavior problems in elementary students. In children aged seven and eight, participation in sports was connected to reduced social anxiety (Dimech & Seiler, 2011). For kindergarteners, participation in organized activities was associated with greater social competence in first grade (Poulin et al., 2012). As students transitioned to middle school, extracurricular involvement was associated with school connectedness and academic achievement (Akos, 2006). In spite of these positive associations and their potential to affect children’s futures, there remains a paucity of research on the extracurricular participation of elementary students (Denault & Déry, 2014; Metsäpelto & Pulkkinen, 2014).

**Rural students.** As with elementary students, little research has focused on rural student populations in spite of their large numbers across the United States. Over nine million students attended a rural school in 2007 (National Center for Education Statistics, as cited in Strange, 2011, p. 9). Six million more attended schools in small towns that urban populations would likely consider to be rural (Strange, 2011, p. 9). This translated to about one-third of American children (Strange, 2011, p. 8). Rural communities may vary on amount and sources of income (Ferris et al., 2013), but if the high-poverty school districts in rural and small towns were combined into one district, it would be the “largest, poorest . . . in the nation” (Strange, 2011, p. 9). Azano and Stewart (2015) found that rural school systems suffered in their ability “to recruit and retain highly qualified teachers . . . due . . . to the lack of community amenities, . . . lower salaries, and higher poverty rates” (p. 1). These factors indicate that funding may be an issue for rural school systems, potentially limiting extracurricular programs (Edwards et al., 2013). Some
school systems have even cut extracurricular programs due to budgeting concerns, despite the fact that extracurricular involvement has been associated with graduating high school, going on to college, and good citizenship (Kronholz, 2012). Ferris et al. (2013) stated that future research is needed in order to “continue to examine organized activity involvement in rural communities” (p. 13), especially since rural students may benefit from extracurricular activities in different ways than urban students (Ferris et al., 2013). Due to the “continued inequities” between rural and nonrural schools documented in research (Azano & Stewart, 2015, p. 1), extracurricular activities may be even more valuable for students in poorer rural schools (Fredricks & Simpkins, 2013; Guèvremont et al., 2014; Ramey & Rose-Krasnor, 2012; Tsang et al., 2012). For all of these reasons, rural students need to be studied more in terms of their extracurricular involvement and associated outcomes.

There are a few studies focusing on rural students. For example, Ludden (2011) investigated involvement in civic extracurricular activities among rural adolescents and relationships with general well-being, problem behavior, and academic engagement, as well as religiosity and perceptions of peers and parents. Ludden’s results showed that those students involved in these activities “reported more religiosity, academic engagement, and positive perceptions of parents and peers than uninvolved youth” (p. 1254). Another study by Edwards, Kanters, and Bocarro (2011) found that schools in rural areas offered fewer extracurricular activity options than schools in urban areas, with most rural schools offering sports only. Ferris et al. (2013) looked at breadth of organized activity involvement among rural youth and its associations with gender, academic achievement, and problem behavior; the authors found differences between their results and those of prior, similar studies involving urban and suburban samples. Other than these prominent studies that target extracurricular involvement and rural students, there is little research in this area.
Self-Concept

Self-concept is an important construct in its own right (Cunningham & Farr, 2014; Kenny & McEachern, 2009; Eusanio, Thomson, & Jaque, 2014; Shapiro et al., 2008). Chawla and Wadsworth (2012) cited a positive self-concept as “central to adaptive functioning in children and adolescents” (p. 269). Other researchers have asserted that self-concept is an “understudied construct” in spite of its frequent association “with healthy children’s well-being” (Gavidia-Payne, Denny, Davis, Francis, & Jackson, 2015, p. 121). A positive self-concept may even be a mediator to other positive outcomes such as academic performance and happiness (Marsh & Martin, 2011).

Researchers have attempted to clarify self-concept as different from other self-related constructs, such as self-esteem. The similarity of these terms has historically been a source of confusion in research on these topics, as some researchers have used these terms interchangeably (Butler & Gasson, 2005). However, researchers have more recently differentiated between the two (Butler & Gasson, 2005). Self-concept is considered to be the broader of the two terms, taking into account cognition and behavior as well as emotion and self-appraisal (Fathi-Ashtiani, Ejei, Khodapanahi, & Tarkhorani, 2007). It is “multi-dimensional and hierarchically organized” (Agarwal, Dhillon, & Babbar, 2013, p. 125). Self-esteem is more limited in scope and refers only to the evaluative, or self-appraisal, component of self-concept (Fathi-Ashtiani, Ejei, Khodapanahi, & Tarkhorani, 2007).

Another self-related term that is sometimes confused with self-concept is self-efficacy, or one’s perceived ability to perform specific tasks. Kenny and McEachern (2009) pointed out that self-concept may influence self-efficacy in a given situation. They agreed with Lent, Brown, and Gore (1997), who demonstrated that self-concept and self-efficacy were “empirically distinguishable” from each other (p. 313). Researchers have highlighted the fact that self-
concept may be measured in terms of global self-worth as well as domain-specific areas, so higher self-concept in an area valued by an individual may compensate for lower self-concept in a less valued area when it comes to global self-worth (Harter, 2012; Shapiro et al., 2008). This provides another contrast with self-efficacy, as “there is no single all-purpose measure of self-efficacy with a single validity coefficient” (Bandura, 2012, p. 15), meaning that while self-efficacy can be measured in specific domains, it does not lend itself to a global measure as self-concept does.

Educational researchers have emphasized domain-specific areas, global self-worth, or both as important to child and adolescent development (Au, Lau, & Lee, 2009; Cunningham & Farr, 2014; Halder & Datta, 2011; Kenny & McEachern, 2009; Kuzucu, Bontempo, Hofer, Stallings, & Piccinin, 2014; Preckel, Niepel, Schneider, & Brunner, 2013; Shapiro et al., 2008). Prevalent areas of self-concept in terms of research on students are academic and social self-concept, along with overall self-worth (Cunningham & Farr, 2014; Kuzucu et al., 2014; Vogl & Preckel, 2014; Wouters et al., 2013).

**Academic self-concept.** The academic domain of self-concept may be defined as “a person’s perception of him or herself as a learner in an academic or school environment” (Joshi & Srivastava, 2014, p. 78). Researchers have noted for decades a close relationship between academic self-concept and student achievement (Guay, Marsh, & Boivin, 2003; Joshi & Srivastava, 2014; Marsh, 1990; Marsh & Martin, 2011; Marsh & Yeung, 1997; McInerney et al., 2012). Marsh (1990) found that academic self-concept influenced academic performance. Others have acknowledged that academic self-concept and academic achievement may have a significant effect upon each other, supporting a reciprocal-effects model (Guay et al., 2003; Marsh & Martin, 2011; Marsh & Yeung, 1997; McInerney et al., 2012). According to Wouters, Germeijis, Colpin, and Verschueren (2011), academic self-concept in high school contributed to
students’ success in higher education. Researchers have also measured academic self-concept in elementary students. For example, in a study by Huh (2015), elementary students from a small town and a large metropolitan area were compared in terms of stress associated with learning English and academic self-concept. His findings indicated lower academic self-concept and higher stress in students from the small town (Huh, 2015). However, research on academic self-concept has typically been conducted in relation to a classroom environment rather than in connection with extracurricular activities (Burnett, 1999; Huh, 2015).

**Social self-concept.** Social self-concept may be defined as one’s perception of his or her general social competence (Harter, 2012). It is important for several reasons. First, Elmore (2012) cited the concern that children were not developing socially as well as in prior generations. He posited the concept of artificial maturity, which he defined as a “dilemma” for America’s young people, who are suffering from “an overexposure to information (too early)” combined with “an underexposure to genuine experience (too late)” (p. 13). These elements have helped to create children who seem mature due to their knowledge of the world, but who actually may lack even basic social knowledge (Elmore, 2012). Elmore concluded that this means that “people skills and social savvy must be intentionally cultivated” in them (p. 11). Based on this conclusion, Elmore recommended that parents “plan face-to-face experience through which [their children] can interact” with others (p. 11). Second, others believe that schools are educating children academically but not preparing them for real-world situations in which social competence and confidence are key factors for success (Foster, 1998). Third, research has found social self-concept to be an important component related to mental health. For example, Au, Lau, and Lee (2009) found social self-concept to be a factor in reducing suicidal thoughts in children and adolescents. Other research by Spilt, van Lier, Leflot, Onghena, and Colpin (2014) connected impeded development of positive social self-concept in
second graders with peer rejection and unhealthy coping mechanisms. Spilt et al. (2014) posited that children with lower social self-concepts were at higher risk for psychopathology. During the first year of junior high or middle school, students reported a lower social self-concept when they had transitioned to a new school; researchers theorized that this shift was due to changing peer social networks and resulting feelings of insecurity in youth (Scott & Santos de Barona, 2011). Alternatively, children placed in gifted courses during this developmental time frame showed some aspects of increased social self-concept (Vogl & Preckel, 2014). Finally, while researchers have found that intervention can increase social self-concept (Chawla & Wadsworth, 2012), some have noted a decline in such interventions in schools (Hardy, 2014). This could mean that other social contexts such as extracurricular activities could play a greater role in children’s social self-concept than before.

**Overall self-worth.** Researchers have found that general self-concept, sometimes called global or overall self-worth (Harter, 2012; Haugen, Säfvenbom, & Ommundsen, 2011), to be significant for youngsters. Overall self-worth is indicative of whether one “likes oneself as a person, is happy with the way one is leading one’s life, is generally happy with the way one is, as a human being” (Harter, 2012, p. 3). It is a general idea of the self as opposed to domain-specific judgments in specific contexts. Overall self-worth may be defined as a “self-evaluation . . . by the individual of his or her value as a person . . . that is, the global sense of oneself [as distinct from merely] the sum of [domain-specific areas of self-concept] targeted in a questionnaire” (Balaguer et al., 2012, p. 625). Because of its general nature, overall self-worth is viewed by some researchers as similar to Rosenberg’s concept of self-esteem (Harter, 2012). Harter posited that overall self-concept was important for healthy functioning in young people, and a higher global self-worth has often been associated with positive lifestyle habits and overall well-being (Balaguer et al., 2012). It “is usually considered a central parameter in psychological
health and development” (Haugen et al., 2011, p. 49). For example, research by Horn, Newton, and Evers (2011) showed a statistically significant relationship between higher overall self-worth and better body image in teen girls. Haugen, Säfvenbom, and Ommundsen (2011) found high overall self-concept was related to increased physical activity in a sample of students aged 13 to 18. Such findings indicate that higher overall self-concept could be a mediator to healthy habits.

Conversely, Kenny and McEachern (2009) pointed out the large body of research showing that a consistently low self-concept was linked to undesirable outcomes such as adjustment problems, depression, eating disorders, and even suicide. Their statements were backed by more recent research by Kuzucu, Bontempo, Hofer, Stallings, and Piccinin (2014) showing that depressive symptoms were associated with a lower overall self-worth in adolescents. Additional recent research by Chawla and Wadsworth (2012) discussed associations between lower overall self-worth and outcomes like substance abuse and anti-social behaviors. Preckel et al. (2013) discussed decades of research showing that cultivation of positive self-concept in young people was not only possible, but important. Chawla and Wadsworth (2012) assessed a one-week intervention intended to increase the overall self-worth of children and teens from military families. They found a significant increase in overall self-worth post-intervention (Chawla & Wadsworth, 2012). Generalizability of results from such pilot studies as this is uncertain (Chawla & Wadsworth, 2012), but assessing self-concept in younger children separately from teens might yield information on how best to undergo self-worth interventions based on developmental stage.

Measuring self-concept. Although most researchers view self-report measures as the best way to measure self-concept, self-reports on self-concept have associated issues (Scott & Santos de Barona, 2011). For example, respondents may fall victim to the social desirability effect, wishing to cast their children or themselves in a positive light (Gall, Gall, & Borg, 2007;
Lindner-Müller, John, & Arnold, 2012). Researchers can try to prevent this by reminding participants of confidentiality rules and their anonymous status in surveys (Gall et al., 2007), but there is no way to be certain of success. Such precautions should still be taken, but they should be accompanied by the use of measures such as the Piers-Harris 2 (Piers & Herzberg, 2002), which has demonstrated measurable validity and reliability both for domain-specific areas and globally. This or similarly proven measures should be used to increase the credibility of any study involving self-concept.

**Self-Selection and Possible Associated Variables**

A challenge in extracurricular participation research is self-selection, the idea that people may make extracurricular choices based on pre-existing traits or demographics (Fredricks & Eccles, 2010; Fredricks & Simpkins, 2013). These other factors can make it difficult for researchers to tell whether outcome variables are truly related to extracurricular participation. This is because self-selection variables may help determine what activities youth may choose and the value they place on activities (Fredricks & Eccles, 2010; Fredricks & Simpkins, 2013). To account for self-selection, researchers have included self-selection variables as additional factors or controlled for them by design or through statistical adjustments (Farb & Matjasko, 2012; Fredricks & Simpkins, 2013). Four possible self-selection variables that have been included in extracurricular and self-concept research are sex, race/ethnicity, socioeconomic status, and grade level (Ryan, Shim, & Makara, 2013; Scott & Santos de Barona, 2011).

**Sex.** Sex is defined as whether an individual is physically male or female (American Psychological Association, 2012). The term has been used interchangeably with gender in previous studies when referring to one’s biological sex as a demographic classification (Blomfield & Barber, 2009; Bohnert, Fredricks, & Randall, 2010). Blomfield and Barber (2009) explained that extracurricular participation may have different value and meaning for girls and
boys, so associated outcomes could vary by sex. Some studies have found that patterns of extracurricular participation vary by sex in terms of activity types. Girls tended to choose a greater number and variety of activities, and boys were more likely to participate in organized sports exclusively (Eccles et al., 2003, as cited in Kort-Butler, 2012; Metsäpelto & Pulkkinen, 2014). Less is known about extracurricular participation patterns in younger children than in adolescents, so this may not hold true for children in middle childhood (Guèvremont, Findlay, & Kohen, 2008).

Researchers have handled the demographic category of sex as a variable in different ways. Some, such as Mahoney and Stattin (2000) and Linville and Huebner (2005), have considered sex by investigating the extracurricular involvement of each sex separately. Others have included sex as a factor or covariate in their design, including those by Adachi and Willoughby (2014), Blomfield and Barber (2009), Denault and Déry (2014), Denault and Poulin (2009), Fredricks (2012), Ferris et al. (2013), Kort-Butler and Hagewen (2011), Lagacé-Séguin and Case (2010), Ludden (2011), and Simoncini and Caltabiono (2012). Results in terms of sex have been mixed. Some studies have found differences in outcomes related to extracurricular involvement (Denault & Déry, 2014; Ferris et al., 2013). Others have not (Adachi & Willoughby, 2014; Kort-Butler & Hagewen, 2011; Simoncini & Caltabiono, 2012). Similar mixed results have resulted from research on self-concept and sex (Lee, Olszewski-Kubilius, & Thomson, 2012; Ryan et al., 2013). Such mixed results suggest that additional research is needed.

Race/ethnicity. Some research has found associations between race or ethnicity and participation patterns, associated outcomes, or both (Kort-Butler, 2012). However, results according to race or ethnicity have also been inconsistent. Some researchers have found differences in outcome variables by race or ethnicity (Scott & Santos de Barona, 2011), while
others have not (Kort-Butler & Hagewen, 2011; Welch, Himonides, Saunders, Papageorgi, & Sarazin, 2014). One reason could be that most studies on ethnic differences in terms of self-concept have focused only on comparing and contrasting “White and Black students” (Scott & Santos de Barona, 2011, p. 295). Another reason may be a focus on overall self-worth rather than separate domains of self-concept (Scott & Santos de Barona, 2011). Results may simply vary according to the make-up of specific samples. Meanwhile, “few studies have explored ethnic differences in self-concept of elementary school children” (Scott & Santos de Barona, 2011, p. 295).

**Socioeconomic status.** Socioeconomic status (SES) could play a role in extracurricular participation. Due to a lack of resources in some households or communities, researchers have found that children living in a lower income situation have lower participation rates compared to other children (Covay & Carbonaro, 2010; Dearing et al., 2009). One study by Edwards, Bocarro, and Kanters (2013) found that students in “socioeconomically deprived rural areas had fewer environmental resources for extracurricular physical activity” (p. 265). Others have shown that participation rates increased when low-income parents were provided with resources such as child and health care subsidies (Epps, Huston, & Bobbitt, 2013). Scholars theorize that children from low socioeconomic status homes may benefit more from extracurricular participation than children from more affluent homes (Covay & Carbonaro, 2010). Blomfield and Barber (2011) found that self-concept differences associated with extracurricular participation were greatest for adolescents from low SES schools. Other researchers, including Denault and Poulin (2009), Fredricks (2012), and Poulin et al. (2012) used an indicator of socioeconomic status in their analyses. Covay and Carbonaro (2010) found that extracurricular participation was significantly related to socioeconomic status. Data from younger students could provide evidence to confirm or refute such results.
**Grade level.** Multiple researchers have included grade level as a variable in their studies. Lagacé-Séguin and Case (2010) made grade level a factor in their study. Other researchers have compared extracurricular participation at one grade level with outcomes at another grade level (Poulin et al., 2012). Still others have examined extracurricular participation over various grade levels (Adachi & Willoughby, 2014; Kort-Butler & Hagewen, 2011). Grade level could be of significance when measuring the variable of self-concept. Harter (2012), a researcher of childhood self-concept, believes that third grade is the typical level at which children begin to develop a consistent self-concept. Previous research on other self-related constructs has shown them to vary by grade level. For example, Wheeler & Ladd (1982) found that social self-efficacy increases with grade level. These factors indicate a possibility that self-concept could vary with grade level during elementary school, but not enough studies have been done on the topic for researchers to say so with certainty.

**Research Designs and Approaches**

Much research on extracurricular participation and self-concept has been cross-sectional and/or correlational in design (Asma-Tuz-Zahra, Arif, & Yousuf, 2010; Bohnert et al., 2010; Farb & Matjasko, 2012; Ferris et al., 2013; Halder & Datta, 2011; Joshi & Srivastava, 2014; Ludden, 2011; Simoncini & Caltabiano, 2012). Fredricks (2012), Blomfield and Barber (2009), and Vogl and Preckel (2014) used an ex post facto, causal-comparative design. Ferris et al. (2013), Kort-Butler and Hagewen (2011), and Poulin et al. (2012) used a correlational design to analyze extracurricular involvement. One limitation of studies like these is that cause and effect relationships cannot be determined, but research has connected extracurricular involvement with socioemotional constructs in adolescents (Kort-Butler, 2012). Kort-Butler suggested that adolescents found their sense of identity partially in terms of their activities. Extracurricular activities provided a context in which youth tried different roles and built skill sets outside the
family and classroom environments. As the juveniles progress through adolescence, they may have become more committed to some activities. They may then have developed higher levels of skill in those activities, which may have become a source of an improved view of self (Kort-Butler, 2012). However, research has not produced a formula for what specific activity may best build self-concept. This is one reason that researchers have taken the activity portfolio approach, within which they study broader categories of extracurricular involvement types (Kort-Butler, 2012). Kort-Butler (2012) believes that “adolescents’ outcomes may differ according to their portfolios” (p. 14). For example, extracurricular activity portfolio was associated with changes in initial levels of self-esteem as well as growth of self-esteem in a study using data collected over a period of 12 years (Kort-Butler & Hagewen, 2011).

Much research investigating extracurricular participation and self-concept together took the approach that extracurricular involvement affected self-concept (Blomfield & Barber, 2009, 2011; Bohnert et al., 2010). In such studies, emphasis was placed on environment and affordances as potential sources of positive outcomes (Farb & Matjasko, 2012). As Fredricks and Simpkins (2013) stated, “Different types of organized activities offer different affordances” to participants (p. 161). The assumption was that opportunities for positive learning experiences would benefit extracurricular participants (Pence & Dymond, 2015; Harris & Kiyama, 2015).

Another reason that researchers have taken an environment-centered viewpoint may relate to the No Child Left Behind (NCLB) legislation. Passed in 2002, NCLB shaped education around academic achievement as measured through standardized testing (Styron & Styron, 2011, p. 1). Because educators became accountable for test scores, most focused on test scores to the exclusion of other matters. Styron and Styron (2011) found that Mississippi principals voted accountability as their top concern by far, both in 2003 and 2010 surveys (p. 6). In part due to this trend, noncognitive skills have not been emphasized in classrooms in several years.
Some researchers have looked to extracurricular activities to compensate for this lack of classroom emphasis on non-academics (Balaguer et al., 2012; Blomfield & Barber, 2009, 2011; Covay & Carbonaro, 2010; Haugen et al., 2011). Extracurricular activities may provide a context for building social self-concept. For example, extracurricular involvement could provide stable peer social networks during a transition from one school to another (Scott & Santos de Barona, 2011). Extracurricular activities are a source of the practice Elmore (2012) recommended to build social knowledge and confidence, potential sources of improved social self-concept. Super, Hermens, Verkooijen, and Koelen (2014) believe that socially vulnerable youth can be helped by extracurricular programs resulting from partnerships between their care agencies and community sports. Other studies have connected extracurricular participation with building noncognitive skills or self-concept (Balaguer et al., 2012; Blomfield & Barber, 2009, 2011; Covay & Carbonaro, 2010; Haugen et al., 2011). Extracurricular activities may provide skills and incentives for increased academic self-concept and achievement (Blomfield & Barber, 2009, 2011; Camacho & Fuligni, 2015; Covay & Carbonaro, 2010; Schwartz, Cappella, & Seidman, 2015). Researchers in Western Europe, Australia, and the United States believe that extracurricular programs may provide a context for positive self-concept to develop in teens (Balaguer et al., 2012; Blomfield & Barber, 2009, 2011; Bohnert et al., 2013). Findings from studies of younger students could contribute to more nuanced theories related to extracurricular participation and self-concept.

**Summary**

Taken together, literature on extracurricular participation and self-concept has a significant gap in the study of these variables among elementary school students in rural areas. This study helps to fill the gap and contributes both to theory and practice: It contributes to theory by testing the interaction of self-concept theory, Gibson’s ecological theory of perceptual
development, and Erikson’s theory of psychosocial development. It contributes to the practice of research by opening new lines of inquiry on extracurricular involvement, self-concept, and rural elementary students. Finally, it contributes to the practice of education by helping to inform policies and practices relating to extracurricular participation for children.
CHAPTER THREE: METHODS

Overview

First, this chapter discusses the study’s design and explains why it was chosen. Next, research questions and hypotheses are listed. Participants and setting are discussed in detail, as well as the instrumentation used in the study. Finally, procedures and data analysis are explained.

Design

A causal-comparative design was employed for this study and was suitable for several reasons. First, an experimental design was precluded, since random assignment of students to extracurricular activities was not a possibility. Second, groups were studied as they naturally occurred, necessitating an ex post facto approach, meaning that both the independent and dependent variables were measured after the fact (Gall et al., 2007). Third, the causal-comparative design is typical for an exploratory study. This study was exploratory due to the paucity of research on the topic of extracurricular involvement in rural elementary students (Denault & Déry, 2014; Ferris et al., 2013; Metsäpelto & Pulkkinen, 2014). Fourth, a causal-comparative approach has been used in previous studies on extracurricular participation (Blomfield & Barber, 2009; Dinç, 2011; Ludden, 2011; Metsäpelto & Pulkkinen, 2012). Fifth, the study’s first presumed cause, or independent variable, was extracurricular involvement portfolio. The portfolios were similar to those used in studies on adolescents and consisted of four levels: sports only, non-sports only, mixed activity types, and no participation (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011). The independent variable was categorical in nature, “the critical feature of causal-comparative research” (Gall et al., 2007, p. 306). One advantage of a causal-comparative design pertinent to this study was this use of categories for the independent variable. Educators typically conceptualize variables as categories, so the
statistical tests and results of this research may be easier for educators and other stakeholders to understand and utilize (Gall et al., 2007).

**Research Questions**

Research questions for this study were as follows:

**RQ1:** Is academic self-concept different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**RQ2:** Is social self-concept different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**RQ3:** Is overall self-worth different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**Null Hypotheses**

Null hypotheses for this study were as follows:

**H₀₁:** There is no statistically significant difference in academic self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**H₀₂:** There is no statistically significant difference in social self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**H₀₃:** There is no statistically significant difference in overall self-worth as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).
Participants and Setting

The population for this study consisted of elementary students attending a North Georgia school district designated as rural according to National Center for Education Statistics (NCES) locale codes (Governor’s Office of Student Achievement, n.d.). The student population was classified in state records as predominantly consisting of White students (74.9%), with the next largest group being Hispanic students (23.4%); only a few remaining students being classified as American Indian/Alaskan Native (0.1%), Asian/Pacific Islander (0.3%), Black (0.4%), or Multi-Racial (0.9%); furthermore, approximately 49% of students were classified as female, 51% as male (Governor’s Office of Student Achievement, 2014). Regarding socioeconomic status (SES), most of the student population was designated as “economically disadvantaged” or eligible for free or reduced lunch (Governor’s Office of Student Achievement, 2014). The area was not very diverse in either race/ethnicity or SES. Participants were a convenience sample of volunteers from this population who obtained parent permission. Students deemed by their teachers to be mentally or physically unable to participate in the study were excluded (Harter, 2012). Also, due to the reading level required to understand the self-concept scale, data from students reported by their teachers as reading below second grade level were excluded (Puckett, 2008). Choosing one district from the region is consistent with advice from researchers for studying rural communities (Ferris et al., 2013; Ludden, 2011; Sharp et al., 2015).

This study’s participants consisted of 306 third through fifth graders attending three elementary schools. Of these, 153 were male and 153 female, with 53 students designated as having an extracurricular portfolio of sports only, 50 as non-sports only, 37 as mixed activity types, and 166 as no participation. The sample and cell sizes met criteria defined by Warner (2013) as appropriate for a large effect size, power of .80, with an α of .05 (p. 209). In terms of ethnicity and sex, the sample consisted of 73.9% White, 24.7% Hispanic, and 1.4% American
Indian/Alaskan Native, Asian/Pacific Islander, Black, and Multi-Racial combined, as well as consisting of similar proportions of males and females (50% and 50%, respectively). It was closely representative of the population from which it was drawn (Governor’s Office of Student Achievement, 2014).

**Instrumentation**

To measure the independent variable of extracurricular participation portfolio, the researcher checked with sponsors of available school- and community-sponsored activities to see which study participants took part in these activities during the previous six months (Denault & Déry, 2014; Denault & Poulin, 2009). Students were then coded by the researcher as fitting the portfolio of sports only, non-sports only, mixed activity types, or no participation, in line with prior research on adolescents (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011). Each student was also coded demographically in terms of race/ethnicity, sex, and grade level as delineated in school records.

To measure the dependent variable of self-concept scores, the Piers-Harris Children’s Self-Concept Scale, Second Edition (Piers-Harris 2) was used (Piers & Herzberg, 2002). The scores for Intellectual and School status for academic self-concept, Popularity for social self-concept, and Total Self-concept for overall self-worth were utilized. Academic and social self-concept, as well as overall self-worth, have been identified as separate constructs of self-concept that are pertinent to students (Au, Lau, & Lee, 2009; Blomfield & Barber, 2009, 2011; Hanks, McGuire, Lewin, Storch, & Murphy, 2016; Harter, 2012; Haugen et al., 2011; Joshi & Srivastava, 2014; Kenny & McEachern, 2009; Marsh, 1990; Marsh & Martin, 2011; McInerney et al., 2012; Spilt, van Lier, Leflot, Onghena, & Colpin, 2014). The Piers-Harris 2 is also appropriate for the age group under study. It was created for use with 7-18-year-olds and is written at a second grade level (Puckett, 2008). The Piers-Harris 2 is modified from a 1984
version of the same scale. The 2002 version has been modernized through standardization with a
national sample, elimination of repetitive or outdated items, and a computer scoring option
(Kelley, 2005). The Piers-Harris 2 has been used in many studies (Butler & Gasson, 2005), and
it is cited repeatedly as “the most frequently used and highly recommended instrument for the
assessment of self-concept” (Remine, Care, & Grbic, 2009, p. 122).

The Piers-Harris 2 is a self-report measure and consists of sixty items total (Hanks et al.,
2016). It yields a score for Total Self-Concept, as well as domain-specific scores in six domains.
The Intellectual and School Status subscale consists of 16 items, while the Popularity subscale
consists of 12 (Hanks et al., 2016). Higher scores overall and in each domain indicate higher
self-concept, with T-scores below 40 indicating low self-concept, while T-scores above 60
indicate high self-concept (Hanks, et al., 2016). There are 25 items phrased positively and 35
negatively to help make certain that children are reading each item (Butler & Gasson, 2005),
which consists of a brief declarative statement (Remine et al., 2009). Children answer items by
circling a simple yes or no, depending upon whether they see the item as true of them (Remine et
al., 2009).

With regard to reliability, the internal consistency of the Piers-Harris 2 has been
measured using Cronbach’s alpha, with results reported as .91 for total score and a range of .74
to .81 for the domains (Butler & Gasson, 2005). For the Intellectual and School Status domain,
Cronbach’s alpha of .81, and for the Popularity domain, .74, have been reported (Remine et al.,
2009, p. 123). Sarouphim (2011) found the internal consistency of the Piers-Harris 2 to be .76
for the total score and .73 for the Popularity subscale (p. 34). Test-retest reliability has been
reported from a number of studies as .69 for two weeks and .75 for ten weeks (Butler & Gasson,
2005). Validity of the Piers-Harris 2 has been determined through various means. Piers and
Herzberg utilized the expertise of a judge to determine whether remaining items in the Piers-
Harris 2 were representative of deleted items in the original version (Puckett, 2008). The authors also included two validity scales in the Piers-Harris 2 to look for “Inconsistent Responding and Response Bias” (Hanks et al., 2016, p. 66). Factorial analysis has yielded six unique factors comprising the six domains of the instrument (Remine et al., 2009). Convergent evidence comparing Piers-Harris 2 results to those of the Coopersmith Self-Esteem Inventory and the Tennessee Self-Concept Scale has yielded correlations of .85 and .61, respectively (Butler & Gasson, 2005). Construct validity also has empirical support through statistical analysis (Pier & Herzberg, 2002), as well as through “ample research findings” (Puckett, 2008, Technical Considerations section, para. 2). Kelley (2005) states that the instrument is “one of the best if not the best of its type, given the . . . research findings supporting the reliability and validity of the scale” (Commentary section, para. 1).

Administering the Piers-Harris 2 may be done individually or in a group setting, following the instructions in the accompanying manual (Oswald, 2005; Piers & Herzberg, 2002). The instrument may be given and scored by teachers or paraprofessionals, and it takes approximately 15 minutes to complete (Oswald, 2005). It has been used in both clinical and classroom settings (Puckett, 2008). It is also “very easy for children to use” (Kelley, 2005, Commentary section, para. 1).

**Procedures**

Before embarking upon the study, approval of the Liberty University Institutional Review Board was obtained in line with federal regulations concerning the use of human participants in research studies (see Appendix A). In addition, permissions from the local district involved, from the administrators at each school, and from community activity sponsors, were gained (see Appendices B and C). Furthermore, since minors were participants, written informed consent of parents and assent of participants were obtained before data were gathered (see Appendix D).
To recruit participants, each site was visited by the researcher. With the help of administrators, information about the study in parental consent/student assent letters was distributed (see Appendix D). On another school day within the next three weeks, each site was visited again by the researcher, who administered the self-concept scales during a brief assembly to students who had turned in correctly completed parent consent/student assent forms to their homeroom teachers. Students were provided with a small incentive worth approximately $1.00 for participating in the study. Self-concept scales were scored using the instructions in the instrumentation manual. During this process, raw scores were converted to $T$-scores (Piers & Herzberg, 2002). Once these data were gathered, rosters from school- and community-sponsored extracurricular activities were checked by sponsors against the list of participants to see which students had participated in what activities during the previous six months, a time frame consistent with previous research on extracurricular participation (Denault & Déry, 2014; Denault & Poulin, 2009). Students were then coded by the researcher as possessing one of the four extracurricular participation portfolios of sports only, non-sports only, mixed activity types, and no participation, aligning this study with prior research on older students (Blomfield & Barber, 2009, 2011; Kort-Butler & Hagewen, 2011). Next, students were assigned a random identification number so that their names could be eliminated from their profiles by a school data clerk, keeping student data confidential. This allowed checking of data entry (Warner, 2013), while still preventing the researcher from associating individual students with their profiles during data analysis.

**Data Analysis**

The independent variable in this study was categorical. The dependent variables consisted of numerical scores from the Piers-Harris 2 (Piers & Herzberg, 2002). Because more than two groups were compared, a $t$-test was not appropriate (Gall et al., 2007). Also, more than
one dependent variable was involved. Each dependent variable was investigated individually, aligning with prior research on adolescent populations (Blomfield & Barber, 2009). Analysis of variance (ANOVA) was required as a statistical technique for this study (Gall et al., 2007). For null hypotheses 1, 2, and 3, a one-way ANOVA with four levels was done to test whether scores for academic self-concept, social self-concept, and overall self-worth scores, respectively, on the Piers-Harris 2 differed according to participants’ extracurricular portfolio of sports only, non-sports only, mixed activity types, and no participation.

In terms of data screening, inconsistencies and outliers were first identified. As a result, student profiles with very high or very low scores on the validity indices were excluded, as such scores indicated random or biased response patterns to an extent that it was not possible to ascertain whether these students understood the inventory (Piers & Herzberg, 2002, pp. 19-20). Also, one student profile was removed due to an excessive number of invalid responses (Piers & Herzberg, 2002, p. 8). With regard to outliers, the decision rule was that scores falling more than three standard deviations away from the mean were removed prior to statistical testing (Warner, 2013, p. 153). Removal of such extreme outliers has been shown to increase accuracy of results and to reduce error (Osborne & Overbay, 2004; Tabachnick & Fidell, 2012). All of these elements resulted in the removal of scores for a total of 12 students. The condition of having a quantitative dependent variable was met, since self-concept scores were on a numerical scale (Warner, 2013). Additional assumptions tests for each ANOVA were done for normality and for homogeneity of variances (Warner, 2013). Descriptive statistics for the sample, including means, standard deviations, and number of participants per cell, typically reported for ANOVA (Gall et al., 2007; Warner, 2013), appear in Table 1 (see Chapter 4).

In conducting each ANOVA, the conventional \( \alpha \) of .05 was used (Warner, 2013). This \( \alpha \) indicates that if \( p < .05 \), the result is considered statistically significant, and the null is rejected.
(Warner, 2013). Some researchers have suggested that reporting whether a result was statistically significant may not indicate its efficacy in terms of real-world application (Warner, 2013). For this reason, effect size is also reported to provide information about the magnitude of results for a better indication of their practical value (Warner, 2013). The statistic for effect size used for each ANOVA was $\eta^2$, which was interpreted using Warner’s (2013) guidelines of .000 to .010 for small effect size, .022 to .059 for medium effect size, .083 to .138 for large effect size, and .168 or above for very large effect size (p. 208).
CHAPTER FOUR: FINDINGS

Overview

The purpose of this causal-comparative study was to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development by investigating whether a statistically significant difference exists between mean scores for self-concept (academic, social, and overall) based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation) in rural elementary students. An one-way, four-level ANOVA for each null hypothesis was run to obtain results. Within this chapter, research questions and null hypotheses for the study are listed, followed by descriptive statistics for the sample once data were culled of inconsistencies and extreme outliers. Next is a results section for each research question and corresponding null hypothesis that includes an explanation of assumptions testing, results of each ANOVA, and results of post hoc analyses.

Research Questions

Research questions for this study were as follows:

**RQ1:** Is academic self-concept different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**RQ2:** Is social self-concept different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?

**RQ3:** Is overall self-worth different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate?
**Null Hypotheses**

Null hypotheses for this study were as follows:

**H₀₁:** There is no statistically significant difference in academic self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**H₀₂:** There is no statistically significant difference in social self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**H₀₃:** There is no statistically significant difference in overall self-worth as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio (i.e., sports only, non-sports only, mixed activity types, or no participation).

**Descriptive Statistics**

Once 12 student profiles were removed as described Chapter 3, descriptive statistics such as means, standard deviations, and number of participants per cell were computed for dependent variables of academic self-concept, social self-concept, and overall self-worth based upon extracurricular participation portfolio (EPP) of sports only, non-sports only, mixed activity types, or no participation. These statistics, typically reported for ANOVA, appear in Table 1 (Gall et al., 2007; Warner, 2013).

<table>
<thead>
<tr>
<th>EPP</th>
<th>n</th>
<th>Academic</th>
<th></th>
<th>Social</th>
<th></th>
<th>Overall</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Sports</td>
<td>52</td>
<td>53.92</td>
<td>6.779</td>
<td>52.12</td>
<td>7.207</td>
<td>55.29</td>
<td>7.119</td>
</tr>
<tr>
<td>Non-sports</td>
<td>47</td>
<td>49.85</td>
<td>8.225</td>
<td>50.00</td>
<td>9.144</td>
<td>50.68</td>
<td>8.054</td>
</tr>
<tr>
<td>Mixed</td>
<td>36</td>
<td>51.06</td>
<td>9.036</td>
<td>51.06</td>
<td>9.414</td>
<td>54.36</td>
<td>10.318</td>
</tr>
<tr>
<td>No participation</td>
<td>159</td>
<td>50.13</td>
<td>7.827</td>
<td>47.08</td>
<td>7.607</td>
<td>49.99</td>
<td>7.580</td>
</tr>
</tbody>
</table>
Results

To determine whether to reject each null hypothesis, data were imported from an Excel spreadsheet into SPSS 22.0 for assumptions testing and statistical analysis. This results section summarizes the results of relevant assumptions testing and of data analysis for each research question and corresponding null hypothesis. Whether each null hypothesis was rejected, as well as results of any necessary post hoc analyses, are then delineated. Tables of descriptive statistics and normality data, as well as figures illustrating confidence intervals, are also included to assist in the interpretation of results.

Null Hypothesis One

Following are results from assumptions tests, statistical analysis, and additional analyses for null hypothesis one.

Assumptions testing. A one-way between-subjects ANOVA was used to test the first null hypothesis that there is no statistically significant difference in academic self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio of sports only, non-sports only, mixed activity types, or no participation (Gall et al., 2007, p. 318). The required assumptions of quantitative data, independent observations, normality, and homogeneity of variances were tested. Data for the dependent variable were considered to meet the quantitative data assumption as described by Warner (2013) for these kinds of measures. Observations were independent for the four groups, as each participant was a member of one group only. To assess for normality, measures of skewness and kurtosis were taken, as shown in Table 2. Using the conservative statistical significance level of .01, which equates to a $z$-score of $\pm 2.58$, the data were considered normally distributed (Laerd Statistics, 2015), because skewness and kurtosis $z$-scores were within this boundary for all extracurricular participation portfolios (Warner, 2013, pp. 147-153). Homogeneity of variances was assessed using Levene’s test, $F(3,$
290) = .852, *p* = .466, a nonsignificant result indicating that population variances were equal. Thus, assumptions for the ANOVA were met.

Table 2

*Skewness and Kurtosis for Dependent Variables by Extracurricular Participation Portfolio (EPP)*

<table>
<thead>
<tr>
<th>EPP</th>
<th>Academic</th>
<th></th>
<th></th>
<th>Social</th>
<th></th>
<th></th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skewness</td>
<td>Kurtosis</td>
<td>Skewness</td>
<td>Kurtosis</td>
<td>Skewness</td>
<td>Kurtosis</td>
<td></td>
</tr>
<tr>
<td>Sports</td>
<td>-.075</td>
<td>-.470</td>
<td>.363</td>
<td>.235</td>
<td>-.110</td>
<td>-.176</td>
<td></td>
</tr>
<tr>
<td>Non-sports</td>
<td>-.283</td>
<td>-.057</td>
<td>.058</td>
<td>-.208</td>
<td>.177</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>.024</td>
<td>-.451</td>
<td>-.689</td>
<td>-.049</td>
<td>.050</td>
<td>-.301</td>
<td></td>
</tr>
<tr>
<td>No participation</td>
<td>.183</td>
<td>-.249</td>
<td>.056</td>
<td>-.018</td>
<td>.133</td>
<td>-.505</td>
<td></td>
</tr>
</tbody>
</table>

**Statistical analysis.** For the ANOVA, the categorical independent variable, extracurricular participation portfolio, had four levels: sports only, non-sports only, mixed participation types, and no participation. The quantitative dependent variable was academic self-concept score. The test was significant at an *α* level of .05, *F*(3, 290) = 3.338, *p* = .020. The strength of relationship between extracurricular participation portfolio and academic self-concept was assessed as η^2^ = .033, indicating a medium effect as interpreted by Cohen’s *d* guidelines in Warner (2013, p. 208). Thus, null hypothesis one was rejected.

**Additional analyses.** Post hoc analyses were conducted to look at pairwise differences among means. As variances were equal but sample sizes were different, Tukey-Kramer post hoc tests were conducted (Laerd Statistics, 2015). At an *α* level of .05, for academic self-concept in terms of extracurricular participation portfolio, sports only (*M* = 53.92, *SD* = 6.779) differed significantly from no participation (*M* = 50.13, *SD* = 7.827), with *p* = .015. Thus, results indicated that those with a sports only portfolio reported significantly higher levels of academic self-concept than those with no participation portfolios. Figure 4 shows a 95% confidence interval around each group mean.
Null Hypothesis Two

Following are results from assumptions tests, statistical analysis, and additional analyses for null hypothesis two.

**Assumptions testing.** A one-way between-subjects ANOVA was used to test the second null hypothesis that there is no statistically significant difference in social self-concept as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio of sports only, non-sports only, mixed activity types, or no participation (Gall et al., 2007, p. 318). The required assumptions of quantitative data, independent observations, normality, and homogeneity of variances were tested. Data for the dependent variable were considered to meet the quantitative data assumption as described by Warner (2013) for these kinds of measures.
Observations were independent for the four groups, as each participant was a member of one group only. To assess for normality, measures of skewness and kurtosis were taken, as shown in Table 2. Using the conservative statistical significance level of .01, which equates to a z-score of ±2.58, the data were considered normally distributed (Laerd Statistics, 2015), because skewness and kurtosis z-scores are within this boundary for all extracurricular participation portfolios (Warner, 2013, pp. 147-153). Homogeneity of variances was assessed using Levene’s test, \( F(3, 290) = 1.736, p = .160 \), a nonsignificant result indicating that population variances were equal. Thus, assumptions for the ANOVA were met.

**Statistical analysis.** For the ANOVA, the categorical independent variable, extracurricular participation portfolio, had four levels: sports only, non-sports only, mixed participation types, and no participation. The quantitative dependent variable was social self-concept score. The test was significant at an \( \alpha \) level of .05, \( F(3, 290) = 6.659, p < .001 \). The strength of relationship between extracurricular participation portfolio and social self-concept was assessed as \( \eta^2 = .064 \), falling between a medium and large effect as interpreted by Cohen’s \( d \) guidelines in Warner (2013, p. 208). Thus, null hypothesis two was rejected.

**Additional analyses.** Post hoc analyses were conducted to look at pairwise differences among means. As variances were equal but sample sizes were different, Tukey-Kramer post hoc tests were conducted (Laerd Statistics, 2015). At an \( \alpha \) level of .05, there were numerous significant differences between means. For social self-concept in terms of extracurricular participation portfolio, sports only (\( M = 52.12, SD = 7.207 \)) differed significantly from no participation (\( M = 47.08, SD = 7.607 \)), with \( p = .001 \), while mixed participation types (\( M = 51.06, SD = 9.414 \)) also differed significantly from no participation (\( M = 47.08, SD = 7.607 \)), with \( p = .038 \). Thus, results indicated that those with a sports only portfolio reported
significantly higher levels of social self-concept than those with no participation portfolios, as those with a mixed participation types portfolio also reported significantly higher social self-concept levels than those with no participation portfolios. Figure 5 shows a 95% confidence interval around each group mean.

**Figure 5.** Means for social self-concept by group with 95% confidence intervals (CIs). Each CI is a range of plausible values for μ. Values outside the CI are relatively implausible.

### Null Hypothesis Three

Following are results from assumptions tests, statistical analysis, and additional analyses for null hypothesis three.

**Assumptions testing.** A one-way between-subjects ANOVA was used to test the third null hypothesis that there is no statistically significant difference in overall self-worth as measured by the Piers-Harris 2 for rural elementary students based on extracurricular portfolio of
sports only, non-sports only, mixed activity types, or no participation (Gall et al., 2007, p. 318). The required assumptions of quantitative data, independent observations, normality, and homogeneity of variances were tested. Data for the dependent variable were considered to meet the quantitative data assumption as described by Warner (2013) for these kinds of measures. Observations were independent for the four groups, as each participant was a member of one group only. To assess for normality, measures of skewness and kurtosis were taken, as shown in Table 2. Using the conservative statistical significance level of .01, which equates to a $z$-score of ±2.58, the data were considered normally distributed (Laerd Statistics, 2015), because skewness and kurtosis $z$-scores are within this boundary for all extracurricular participation portfolios (Warner, 2013, pp. 147-153). Homogeneity of variances was assessed using Levene’s test, $F(3, 290) = 2.568$, $p = .055$, a nonsignificant result indicating that population variances were equal. Thus, assumptions for the ANOVA were met.

**Statistical analysis.** For the ANOVA, the categorical independent variable, extracurricular participation portfolio, had four levels: sports only, non-sports only, mixed participation types, and no participation. The quantitative dependent variable was overall self-worth score. The test was significant at an $\alpha$ level of .05, $F(3, 290) = 7.549$, $p < .001$. The strength of relationship between extracurricular participation portfolio and overall self-worth was assessed as $\eta^2 = .072$, falling between a medium and large effect as interpreted by Cohen’s $d$ guidelines in Warner (2013, p. 208). Thus, null hypothesis three was rejected.

**Additional analyses.** Post hoc analyses were conducted to look at pairwise differences among means. As variances were equal but sample sizes were different, Tukey-Kramer post hoc tests were conducted (Laerd Statistics, 2015). At an $\alpha$ level of .05, there were numerous significant differences between means. For overall self-worth in terms of extracurricular
participation portfolio, sports only ($M = 55.29, SD = 7.119$) differed significantly from both non-sports only ($M = 50.68, SD = 8.054$) and no participation ($M = 49.99, SD = 7.580$), with $p = .022$ and $p < .001$, respectively, while mixed participation types ($M = 54.36, SD = 10.318$) differed significantly from no participation ($M = 49.99, SD = 7.580$), with $p = .017$. Thus, results indicated that those with a sports only portfolio reported significantly higher levels of overall self-worth than those with non-sports only and no participation portfolios, while those with a mixed participation types portfolio reported significantly higher overall self-worth levels than those with no participation portfolios. Figure 6 shows a 95% confidence interval around each group mean.

Figure 6. Means for overall self-worth by group with 95% confidence intervals (CIs). Each CI is a range of plausible values for $\mu$. Values outside the CI are relatively implausible.
CHAPTER FIVE: CONCLUSIONS

Overview

In the concluding chapter, the results of the study are organized by research question and discussed in terms of previous research and theory. Next, ways in which the study has added to the body of academic literature, theory, and practical decision-making beyond the empirical results are delineated. Limitations of the study and their possible impact are discussed in terms of both internal and external validity. Finally, recommendations are made for future research.

Discussion

The purpose of this causal comparative study was to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development by investigating the overarching research question, Is there a statistically significant difference between mean scores for self-concept (academic, social, and overall) based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation) in rural elementary students? The result of the ANOVA for each null hypothesis was statistically significant, consistent with similar previous studies of older student populations from rural and other environments. Following is a detailed discussion of how the empirical result for each research question fits with the previous literature and theory.

Research Question One

The first research question asked whether academic self-concept is different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate. The result of the ANOVA for the first null hypothesis was significant, indicating a difference in academic self-concept by extracurricular participation portfolio. This finding supports those of other studies that have asked similar questions. For example, Knifsend and Graham (2012) found that extracurricular
participation was related to positive feelings about school and academic outcomes, while researchers such as Ferris et al. (2013) found relationships with academic outcomes based on extracurricular participation portfolio. Blomfield and Barber (2009) investigated whether academic self-concept varies with extracurricular participation portfolio in adolescents and also found a significant result. Relationships between extracurricular participation and academic self-concept may be due to an emphasis on what Covay and Carbonaro (2010) call “noncognitive skills” that are common to the extracurricular and classroom environments, such as “task persistence . . . following instructions, working well within groups, dealing with authority figures, and fitting in with peers” (p. 21). Thus, a significant ANOVA result for the first null hypothesis generally fits with results from previous studies. It also adds to the body of knowledge on extracurricular participation by extending from adolescent participants to children, as well as by providing additional data about rural students (Ferris et al., 2013).

Specifically, however, results of post hoc analyses for this study were that sports only, rather than mixed activity types, was the extracurricular participation portfolio associated with the highest academic self-concept scores. Although mixed activity types ranked second in academic self-concept in this study, the difference between this portfolio and others was not statistically significant. While researchers have found mixed results with regard to academic-related outcomes and sports participation (Camacho & Fuligni, 2015; Guèvremont et al., 2014; Kotschwart & Stahler, 2016), the results of this study differed from earlier research on adolescents, which found that participation in mixed activity types was associated with significantly higher academic self-concept and academic outcomes when compared with other extracurricular participation portfolios (Blomfield & Barber, 2009; Fredricks & Eccles, 2010; Knifsend & Graham, 2012). This means that although the first null hypothesis for this study was rejected, the answer to the first research question is that a mixed activity types portfolio was not
associated with a significantly different academic self-concept when compared to the other three extracurricular portfolios in this study.

In terms of testing the interaction among the theories of self-concept, Gibson’s ecological theory of perceptual development, and Erikson’s theory of psychosocial development, the findings for academic self-concept were generally supportive of this study’s conceptual model. The statistically significant relationship between academic self-concept and extracurricular participation portfolio indicates that different environments may offer different affordances for the rural elementary student, just as prior studies have found to be the case for other populations (Blomfield & Barber, 2010, 2011; Bohnert et al., 2010; Fredricks & Simpkins, 2013). Since researchers have found relationships between academic self-concept and academic performance for decades (Guay et al., 2003; Joshi & Srivastava, 2014; Marsh, 1990; Marsh & Martin, 2011; Marsh & Yeung, 1997; McInerney et al., 2012), academic self-concept may be of particular importance to children, as they are just beginning their academic careers. As children experience Erikson’s stage of industry versus inferiority, a higher academic self-concept may indicate a sense of competence rather than inability in the realm where children often spend the bulk of their time and effort (Lagácé-Séguin & Case, 2010). For elementary students, having a higher academic self-concept early on could mean a greater chance of academic success throughout their school experience (Wouters, Germeijs, Colpin, & Verschueren, 2011), further reinforcing the conceptual model of the interaction among self-concept, environment, and developmental stages.

**Research Question Two**

The second research question asked whether social self-concept is different in rural elementary students who participate in various types of extracurricular activities when compared to those who participate in only one type or who do not participate. The result of the ANOVA
for the second null hypothesis was significant also, indicating a difference in social self-concept with extracurricular participation portfolio. This finding aligns with prior research results showing a difference in dependent variables such as social self-concept and related variables such as prosocial behavior and social skills with extracurricular participation profile (Blomfield & Barber, 2009; Denault & Déry, 2014; Guèvremont et al., 2014). One reason that social self-concept may vary with extracurricular participation portfolio is that numerous organized activities “explicitly include improving social . . . competencies as a central goal” (Fredricks & Simpkins, 2013, p. 3). In addition, participation in some extracurricular activities “is related to having a prosocial . . . friendship group” (Fredricks & Simpkins, 2013, p. 8). Both of these factors could relate to social self-concept. As with the first, the statistically significant ANOVA result for the second null hypothesis supports results from previous studies and adds to the extracurricular participation literature by extending to a younger age group and providing more data on rural students (Ferris et al., 2013).

Specifically, sports only was again the profile associated with the highest social self-concept scores in this study, with sports only portfolios differing significantly from no participation portfolios. This result could be due to the emphasis on teamwork and peer interactions found in many sports programs (Blomfield & Barber, 2011; Covay & Carbonaro, 2010). Sports participation has also become associated with the social arena by parents. For example, Ashbourne and Andres (2015) noted parents who encouraged their children to participate in sports in order to increase the children’s social networking skills. However, for this research question, while mixed activity types was second in terms of social self-concept scores, this profile also was associated with significantly higher social self-concept scores than no participation profiles. These findings are more supportive of previous research on the positive socioemotional indicators and their relationship to mixed activity types (Blomfield &
Barber, 2009; Guèvremont et al., 2014; Kort-Butler & Hagewen, 2011). Thus, although the
second null hypothesis was rejected, the answer to research question two was that students who
participate in mixed activity types do not score significantly different for social self-concept than
those who participate in only one type of extracurricular activity, but they do score significantly
higher than students who do not participate in extracurricular activities.

With regard to theory, results of this study were supportive of its conceptual model of an
interaction among self-concept theory, Gibson’s theory, and Erikson’s theory. Now that social
time and interaction are so limited in the classroom due to a focus on academics (Fredricks,
2011, 2012; Fredricks & Simpkins, 2013), researchers already agree that extracurricular
activities are among the principal “settings where children and adolescents form relationships”
(Rodkin & Ryan, 2011, p. 373). This development, combined with this study’s finding that
social self-concept varied with extracurricular participation portfolio, bolster the case that
extracurricular participation may provide affordances that allow for development of social self-
concept (Bohnert et al., 2010; Fredricks, 2012; Fredricks & Simpkins, 2013). For children in
Erikson’s stage of industry versus inferiority, previous research has shown lowered social
anxiety for children participating in sports and greater social competence for children
participating in organized activities (Dimech & Seiler, 2011; Poulin et al., 2012). This study’s
results are supportive of such findings and could indicate that extracurricular participation may
assist a child in developing a sense of competence in the social realm rather than a feeling of
ineptitude (Isabella & Diener, 2010; Soeker, 2014).

Research Question Three

The third research question asked whether overall self-worth is different in rural
elementary students who participate in various types of extracurricular activities when compared
to those who participate in only one type or who do not participate. For the third null hypothesis,
the statistically significant ANOVA result is indicative of a difference in overall self-worth with extracurricular participation portfolio. This finding is also consistent with prior studies on overall self-worth and related outcomes (Blomfield & Barber, 2009; Fredricks, 2012; Guèvremont et al., 2014). For example, researchers like Kort-Butler and Hagewen (2011) and Viau and Paulin (2014) found statistically significant differences in adolescents’ self-esteem and young adults’ adjustment, respectively, by extracurricular portfolio. Generally, overall self-worth has been found to be higher with any type of extracurricular involvement than none (Blomfield & Barber, 2009; 2011; Kort-Butler, 2012; Kort-Butler & Hagewen, 2011). Some research has suggested that the experiences of identity exploration, success, goal setting, and peer interactions may contribute to higher overall self-worth for those who engage in extracurricular activities (Blomfield & Barber, 2011). The results for overall self-worth from this study not only support findings from previous studies, but also extend the knowledge base in the literature on extracurricular participation of rural children (Blomfield & Barber, 2009; Ferris et al., 2013; Fredricks, 2012; Guèvremont et al., 2014; Kort-Butler & Hagewen, 2011).

Specifically, a sports only portfolio was associated with the highest overall self-worth scores, and these were significantly higher than both non-sports only and no participation portfolios. Again, a mixed activity types portfolio was associated with significantly higher overall self-worth scores than no participation. These findings are consistent with prior studies on adolescents that found higher mean levels of overall self-worth or self-esteem were associated with sports only and mixed participation types portfolios (Haugen et al., 2011; Kort-Butler & Hagewen, 2011). This may in part be due to the exercise aspect of both portfolios, as high overall self-worth has been tied to increased physical activity in previous research (Haugen et al., 2011). For this study, although the third null hypothesis was rejected, the answer to research question three was that a mixed activity types portfolio did not equate to different overall self-
worth scores than any other extracurricular participation portfolio, but it was associated with different scores in this domain than a no participation portfolio.

Concerning theory, this study’s results for overall self-worth are also supportive of its conceptual model. The finding that overall self-worth varied with extracurricular participation portfolio demonstrates that overall self-worth may be positively affected via the affordances offered through extracurricular activities (Blomfield & Barber, 2011). Since numerous extracurricular programs actively promote “empowerment and leadership” for their participants (Fredricks & Simpkins, 2013), children may come away from their extracurricular experiences with a greater sense of these qualities, thereby positively affecting their overall self-worth. In turn, this could contribute to a positive outcome for Erikson’s industry versus inferiority phase due to an increased sense of competence in leadership and in the specific skills developed through various extracurricular endeavors (Fredricks & Simpkins, 2013; Isabella & Diener, 2010; Soeker, 2014).

Implications

With regard to the empirical literature on extracurricular participation and related socioemotional variables, this study adds to the body of knowledge through its exploration of the understudied population of rural elementary students (Denault & Déry, 2014; Metsäpelto & Pulkkinen, 2014). Since former studies have focused mainly on adolescents, it has been difficult to determine whether associations of extracurricular participation with variables such as higher self-concept are unique to older students who have had time to build a stronger sense of self than a younger child (Harter, 2012; Wheeler & Ladd, 1982). Previous research also has neglected the large population of rural children, who often have more limited extracurricular options and may benefit from them differently than urban and suburban children (Edwards et al., 2011; Ferris et al., 2013; Strange, 2011). While one study cannot correct these imbalances in the literature, this
study represents a step in the direction of learning more about rural elementary students. The results from this study are generally consistent with prior research (Blomfield & Barber, 2009, 2011; Denault & Déry, 2014; Ferris et al., 2013; Guèvremont et al., 2014; Knifsend & Graham, 2012), indicating that extracurricular participation may contribute to higher self-concept in children as well as adolescents, and that rural children may benefit from participation as well as children from urban and suburban areas.

The results of this study also contribute to theory by supporting its conceptual model positing an interaction of self-concept theory, Gibson’s ecological theory of perceptual development, and Erikson’s theory of psychosocial development. The association of significantly higher academic and social self-concept, as well as overall self-worth, with extracurricular participation supports an interaction of self with environment. In addition, this study’s findings for children indicate that Erikson’s industry versus inferiority stage is relevant to extracurricular participation research, just as his adolescent stage of identity versus role confusion has been in previous studies (Coatsworth et al., 2005).

For parents, educators, and community decision makers, the results of this study indicate that extracurricular programs are a good investment of resources, associated as they are with positive self-concepts for rural children. Combined with the assertions in prior research that building a positive self-concept early in life improves one’s chances of having one throughout the lifespan, and that self-concept is key to psychological health (Pajares & Schunk, 2002; Schmidt, 2006; Shavelson et al., 1976), the results of this study indicate that extracurricular programs may play an important role for rural children. With the already limited leisure activities available in many rural communities due to economic or other factors (Edwards et al., 2011), this study supports the view that prioritizing or cutting extracurricular programs without data analysis is especially problematic (Edwards et al., 2011; Kronholz, 2012; Strange, 2011).
Fredricks (2012) went so far as to suggest that such attempts may constitute “short sighted and misguided policy decision[s]” (p. 306).

**Limitations**

Despite efforts to avoid limitations and minimize their impact, possible threats to internal and external validity of this study exist.

Considering internal validity, the possibility of selection effects is a consideration of much research on extracurricular participation (Farb & Matjasko, 2012; Fredricks & Eccles, 2010; Fredricks & Simpkins, 2013; Kort-Butler & Hagewen, 2011). This is a common threat to causal comparative studies, as groups studied via this method are typically not randomly selected as would be the case in a laboratory experiment (Gall et al., 2007). This threat cannot be avoided entirely when studying naturally occurring groups (Gall et al., 2007). Researchers have sometimes attempted to mitigate potential selection effects by statistical methods (Farb & Matjasko, 2012), but with “equivocal” results (Kort-Butler & Hagewen, 2011, p. 570). For this study, although a convenience sample was utilized, the sample was large and closely representative of the population from which it was taken, both of which add to internal validity (Gall et al., 2007; Warner, 2013). However, possible selection effects are still a consideration in interpreting the results of any causal comparative research.

In addition, although the assumptions for all null hypotheses in this study were met, the result of Levene’s test of homogeneity of variances for the third null hypothesis was very close to significance level. Therefore, results for that hypothesis should be interpreted with caution.

Another limitation of this study was its use of a self-report measure of self-concept. This is a limitation common to studies of self-concept; by its nature, self-concept is a subjective judgment or perception, so there is no method to measure it objectively. Common pitfalls of the self-report are the possible influences of response bias and social desirability (Gall et al., 2007;
Lindner-Müller, John, & Arnold, 2012; Piers & Herzberg, 2002). To mitigate the possible impact of these factors for this study, participants were informed of the confidentiality of their responses, and the Piers-Harris 2 was used. This instrument contains scales to measure extremes in response bias or inconsistent responding that were utilized during the search for outliers (Piers & Herzberg, 2002). Prior to data analysis, outliers were removed from the data set for this study (Warner, 2013), since removing extreme outliers has been shown to increase accuracy of results and to reduce error (Osborne & Overbay, 2004; Tabachnick & Fidell, 2012).

Researchers must also concern themselves with external validity when planning their studies. The external validity of this study was limited by design to the rural elementary students in the community in which it was conducted, as that was the defined population for the purposes of this research. However, researchers of rural communities argue that such should be the case, since each rural community may be viewed as a unique entity (Ferris et al., 2013). To provide information for subsequent researchers, a description of the sample was provided for this study so that readers of the research could more easily determine whether the study’s results might pertain to their population of interest (Gall, Gall, & Borg, 2010).

**Recommendations for Future Research**

Future research on the extracurricular participation of rural elementary students and self-concept is warranted to continue to add to the body of knowledge and theory, as well as to inform decision making about extracurricular programs. Suggestions for future research are as follows:

- This study opens numerous new lines of inquiry. Studies that build upon this research could include related factors that might contribute to extracurricular participation of rural elementary students, such as parental involvement or support. Factors contributing to extracurricular participation are numerous, so such studies could help researchers gain a
better understanding of how these factors interact with extracurricular choices and participation patterns.

- This study also verified extracurricular participation with the sponsor of each activity via its roster, thereby providing greater confidence that participation data were more reliable than data obtained through self- or parent report. Verifying as much participation data as possible in future research would lend credence to any findings.

- Incorporation of variables related to possible selection effects in analyses or greater statistical controls of these variables could be utilized.

- Future research should investigate different communities to add to the body of literature on rural elementary students. Since this study was conducted in one community, it remains to be explored whether similar studies in other communities would obtain concurrent results, especially since each rural community is different (Ferris et al., 2013). Studies of numerous rural communities would also add to the volume of empirical data in this area of inquiry.

- Other designs besides causal-comparative should be used. Studying younger students opens the possibility for more longitudinal research on extracurricular participation and related variables. Starting research with younger children could help to clarify whether the potential benefits of extracurricular participation are pertinent to more developmental stages than those of adolescence. Qualitative studies could lend significant insight regarding the reasons for some of the quantitative findings, as well as opening even more lines of inquiry for further study.
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APPENDIX A: IRB APPROVAL

INSTITUTIONAL REVIEW BOARD

7/12/2016

IRB Approval Extracurricular Participation and Self-Concept in Rural Elementary Students: A Causal-Comparative Study

Dear [Name]

We are pleased to inform you that your study has been approved by the [Redacted] IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

[Redacted]

Administrative Chair of Institutional Research
APPENDIX B: ACCESS TO DATA LETTERS

Good morning, Mr./Ms. Activity Sponsor!

You are receiving this letter because you are a sponsor of a local school- or community-based activity in which students in grades 3 through 5 may participate in North Georgia County. As a part of a research study I am conducting in working toward a doctoral degree, I am studying students’ self-concept in academics, social life, and generally in terms their extracurricular involvement. It is hoped that results from this study can serve to point out the benefit of such activities to students’ self-worth.

I will need your help in doing the study, however; parents or guardians will sign for permission for their students to participate in the survey and for me to confirm with you whether those students have been involved in the activity or activities you sponsor. This can be accomplished either through granting me access to your activity rolls or through simply checking yes or no by students’ names who are in the survey as to whether they have participated in your activity within the previous six months. Permission from parents will be shown to you beforehand in either case.

I already have agreement to participate from a number of activity sponsors in our county, but I will need you to respond to this email to let me know whether you will donate a few minutes of your time for this cause.

Results from the study will be made available to you upon request; as stated, these may be helpful in showing the benefits of your program. Also, the results will be reported in terms of participants in grades 3 through 5 as groups; no individual students will be identified in the study archival data or results.

Please see the attached letters for more details; these are being sent to participating schools and parents.

Thank you for your consideration of this matter and for any assistance.

Sincerely,

Doctoral Student
APPENDIX C: SITE LETTER

Date: July, 2016

Generic School Leader
School Administrator
North Georgia Elementary/Middle School
123 Main Street, Generic Town, GA 12345

Dear Mr./Ms. Leader:

As a graduate student, I am conducting research as part of the requirements for a doctoral degree in education, or Ed.D. The title of my research project is Extracurricular Participation and Self-Concept in Rural Elementary Students: A Causal-Comparative Study, and the purpose of my research is to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development by comparing self-concept scores (academic, social, and overall) of rural North Georgia elementary students based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation).

I am writing to request your permission to conduct my research at North Georgia Elementary/Middle School, to include recruiting student participants who, with written parental permission, will fill out a brief self-concept questionnaire on school grounds. Permission from the system superintendent has already been obtained for this study.

Parents will be asked to

• Sign a permission form for their student to fill out a brief questionnaire and for the researcher to access their demographics from school records and extracurricular participation data from rosters.

Participants will be asked to

• Return a signed parent permission/student assent form to participate in the study.
• Fill out a 15-minute questionnaire. Each item is a simple statement. Students decide whether each statement is true of them and circle “yes” if it is or “no” if it is not.
Extracurricular sponsors will be asked to

- Provide access to participation rosters/rolls or confirm student’s participation in extracurricular activities during the previous six months.

Participating in this study includes the following possible risks: Risks of participating in the study beyond those risks associated with everyday life are not anticipated. However, please note that information disclosed to the researcher during the course of the study that falls under the mandated reporting laws of the state will be reported to the appropriate agencies. Such information includes, but is not limited to, child abuse, child neglect, potential harm to self, and potential harm to others. These topics will not be asked about as a part of the study. Taking part in this study is completely voluntary.

Participants in the study may withdraw from it at any time without penalty.

The benefits to participation include the following opportunities: to lend insight to others regarding their points of view, to provide data for possible consideration in choosing extracurricular activities, to participate in a research study directly related to the participants’ life experiences, and to learn the results.

Data from the study will be used to look for a possible relationship between various types of extracurricular participation and participants’ self-concept. Thank you for considering my request. Please respond indicating whether you consent to this study by July 31, 2016. If you do, I will contact you to schedule the dates and times for me to visit campus.

Sincerely,

Doctoral Student
(University, 2014b)
APPENDIX D: CONSENT/ASSENT LETTER

Extracurricular Participation and Self-Concept in Rural Elementary Students: A Causal-Comparative Study
Principal Investigator
University
Department of Education

Your child is invited to be in a research study of whether there is a relationship between participation in extracurricular activities and self-concept of children. Your child was selected as a possible participant because he or she is currently in grade levels under study, 3-5. I ask that you read this form and ask any questions you may have before agreeing to allow your child to be in the study. A doctoral student is conducting this study.

Background Information:

The purpose of this study is to test the interactional framework of self-concept theory and Gibson’s ecological theory of perceptual development with Erikson’s theory of psychosocial development by comparing self-concept scores (academic, social, and overall) of rural North Georgia elementary students based on extracurricular participation portfolio (sports only, non-sports only, mixed activity types, or no participation).

Procedures:

If you agree for your child to be in this study, your child will be asked to do the following:

- Return a signed parent permission/student assent form to participate in the study.
- Fill out a 15-minutes questionnaire. Each item is a simple statement. Students decide whether each statement is true of them and circle “yes” if it is or “no” if it is not.

Also, agreeing for your child to be in the study means that the researcher has permission to check activity rosters to see what activities your child has participated in within the past six months.

Risks and Benefits of being in the Study:

Participating in this study includes the following possible risks: Risks of participating in the study beyond those risks associated with everyday life are not anticipated. However, please note that information disclosed to the researcher during the course of the study that falls under the mandated reporting laws of the state will be reported to the appropriate agencies. Such information includes, but is not limited to, child abuse, child neglect, potential harm to self, and potential harm to others. These topics will not be asked about as a part of the study. Taking part in this study is completely voluntary.

The benefits to participation include the following opportunities: to lend insight to others regarding their points of view, to provide data for possible consideration in choosing extracurricular activities, to participate in a research study directly related to the participants’ life experiences, and to learn the results.
Compensation:

Your child will receive a small incentive worth approximately $1.00 for participation.

Confidentiality:

The records of this study will be kept private. In the dissertation or any other publications on this study, information will not be included that makes it possible to identify your child. Research records will be purged of identifying information, then stored securely in a locked cabinet to which only the researcher has a key.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether your child may participate will not affect your child’s current or future relations with the participating university or North Georgia School. If you decide that your child may participate, he or she is free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is a doctoral student. You may ask any questions you have now. If you have questions later, you are encouraged to contact the researcher or to contact her advisor. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher or her advisor, you are encouraged to contact the Institutional Review Board at the participating university. Please notify the researcher if you would like a copy of this information to keep for your records.

Si necesita una traducción de esta carta, llame 555-555-5555 solicitar un traductor, por favor.

Statement of Consent:

_____ I have read and understood the above information. If I have asked questions, I have received answers. I consent for my child to participate in the study.

(Note: The study has been approved by the Institutional Review Board at the participating university as meeting standards for conducting research involving human participants as of Future Month 23, 2016.)

Signature of parent or guardian: ________________________________ Date: ______________

Signature of student participant: ________________________________ Date: ______________

Signature of investigator: ________________________________ Date: ______________

(University, 2014a)
Hi Donna,

Yes, you have my permission... you might reference on figure where you got the original idea.

Best wishes,