ARE CHILDREN OVERSTRUCTURED?:
INVolvement IN ADULT-ORGANIZED ACTIVITIES AND CHILDREN’S OUTCOMES

A THESIS

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By

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ABSTRACT

Changes in how Americans view the role of children have prompted an increase in the deliberate cultivation of children’s skills through intensive and structured parenting. With children participating in more structured activities as a result of this shift in childrearing philosophies, there are many reasons to question the benefits of these increasingly "hurried schedules." Surprisingly, however, scholars have ignored possible negative ramifications by assuming that structured activities have a simple, linear relationship with children's well-being. With more detailed modeling, I test whether the functional form of the relationship is linear, threshold, or curvilinear by analyzing a sample of 17,527 elementary-age children from The Early Childhood Longitudinal Study--Kindergarten Class of 1998-99. Findings primarily reveal a threshold relationship. For example, participation in two (versus none or one) structured activities per month was associated with greater well-being among children, but further levels of participation in structured activities resulted in no additional benefit.
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INTRODUCTION

Shifts in the construction of the American family and in attitudes regarding the importance of education for adult status attainment have created a growing literature examining the educational and social well-being of children (Duncan & Featherman 1972, Sewell & Hauser 1980, Elkind 1981, see also 2006, Bianchi & Robinson 1990, Lareau 2002, see also 2003; Cheadle 2008). Research indicates that the American middle-class family has become re-centered around children in parenting styles such as concerted cultivation (Lareau 2002, see also 2003) and intensive mothering and fathering (Hays 1996). These class-based parenting strategies seek to “cultivate” children’s academic, cognitive and social skills in order to prepare them for middle-class adulthood.

One component of intensive parenting is participation in structured activities. Defined as “high levels of participation in formalized, adult-guided play” (Cheadle 2008, see also Lareau 2003), Lareau (2003) found that children from more advantaged backgrounds were more likely to engage in “structured” and organized forms of play, such as dance classes and music lessons. Parents enroll their children in these adult-supervised activities in order to cultivate them, working under the correct assumption that childhood ultimately establishes a foundation for adult status attainment (Bianchi & Robinson 1997).
Current evidence suggests that participation in structured activities, versus free-play, is positively associated with child and adolescent academic achievement (Marsh & Kleitman 2003, Fletcher et al 2003, Broh 2002, McNeal 1995, Marsh 1992, Phillips & Schafer 1971). However, research in this area has assumed a linear relationship. No study to date has tested the functional relationship between participation in structured activities and educational and social well-being. With parents enrolling their children in extracurricular classes and teams and exploring culture with trips to the theater and museums, it is essential to understand if there can be “too much of a good thing.” If children spend most afternoons and evenings engaged in activities, homework could be pushed aside and sleep reduced. As a result, math and reading grades could suffer. Furthermore, if children spend most of their free time engaged in adult organized activities, they may find themselves less able to interact with peers or develop friendships without adult intervention. Therefore, the relationship between activity participation and well-being may not be linear.

In this study, I expand on previous findings by examining the functional form between structured activity participation and educational and social outcomes utilizing a nationally representative sample of elementary school-aged children. Primarily, results indicate a threshold effect; although some participation in structured activities is beneficial for academic and social outcomes, the linear effects wane and level off with increased participation.
CONCEPTUAL FRAMEWORK

The Changing Nature of Childhood

The end of the twentieth century and emergence of the twenty-first has witnessed the redefining of American youth and parental responsibilities towards offspring (Quirke 2006, Lareau 2003, Sayer et al 2004, Stevens 2001, Hays 1996, Aries 1962). Whereas previous time periods classified childhood as transitory and unimportant and children as miniature adults who drained parental resources until financial independence (Aries 1962), recent decades have shifted to view children as in need of coddling, protection, and cultivation in order to ensure future adult success (Elkind 2006, Hays 1996).1

Childhood has become “scholarized” (Mayall 2002) as parents encourage growth and development at earlier and earlier ages to prevent falling behind at the starting gate. One social movement that embodies this “scholarization” of childhood is the homeschooling movement (Stevens 2001), which, gathering support and numbers in the 1980’s, signifies the commencement of intensive parenting that pervades middle-class America. Although an extreme form of cultivation, homeschooling parents, like many middle-class parents, believe that “children have the potential for distinctive accomplishments” (Stevens 2001:5) and need to be nurtured and cultivated in order to

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1 Aries (1962) traces this transformation from the middle ages in which “there was no place for childhood” There, children were depicted in artwork without any characteristics of their own and recognizable only “by their size.”
flourish. According to this view, children should no longer be left to develop naturally, but should be carefully guided and instructed.

Even with changes in family dynamics and structure, primarily the shift of women into the workforce and an increase in divorce rates, parents are dedicated to “cultivating” their children. Research has demonstrated that parents have altered their behaviors to compensate for busier lives in the form of “intensive mothering” and “involved fathering” (Sayer et al 2004, Hays 1996). Parents are no longer passively raising their children but are actively engaging in the cultivation and development of children rather than solely leaving it to the education system.

This shift in parental and expert philosophies towards a practice of deliberate cultivation is demonstrated by changes in parenting magazines (Quirke 2006) and parenting classes (Hays 1996) during the last half of the twentieth century. Where articles were previously concerned with how to “amuse” children and prevent boredom, modern journalism instructs parents how to generate and increase cognitive development. Parents are no longer advised to leave children to their own imaginative play but to actively foster learning (Quirke 2006, Hays 1996). Overall, shifts and increases in both parenting magazines and parenting classes testifies to an increased dedication to intensive or structured parenting (Hays 1996). In summation, Quirke (2006) argues that

The shift from keeping children amused to actively fostering children’s academic progress supports the finding of authors who argue that not only is parenting becoming more intensive over time, it is also increasingly becoming characterized by a heightened preoccupation with children’s cognitive development…parents are actively encouraged to foster their children’s cognitive development with the aim of enhancing and maximizing

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2 Parenting classes explore similar topics whereas in previous decades the issues addressed were health related: proper ways to feed, burp and change diapers (Hays 1996).
their children’s chances for academic success (404).

Is Structure Beneficial for Child Development?

As childhood increasingly becomes a period for academic enrichment and increased involvement in structured activities, sociologists have examined the possible effects of these activities. More specifically, they have considered the possibility that participation in structured versus unstructured activities yields different outcomes. Structured activities are defined as “those that are organized by adults around specific social or behavioral goals” (Fletcher et al 2003:642). These most often include involvement in interscholastic sports, music lessons and various classes intent on fostering children’s talents and development. In contrast, unstructured activities are those that “arise spontaneously in children’s lives, and may include time spent engaged in social interactions with friends or siblings, reading or listening to music alone, or engaging in spontaneous play activities” (642). These activities are most often without direct adult supervision or organization and are the result of child imagination and relaxation in their leisure time.

Yet, whether a child participates in structured or unstructured activities is not arbitrary and not all parents believe that involvement in adult-supervised activities is necessary for child development. Lareau (2003), in her ethnography of families, argues that rearing children, of which enrollment in activities is a component, is closely related to economic status (see also Cheadle 2008) resulting in two distinct parenting styles: concerted cultivation and natural growth. She defines concerted cultivation as a method
of childrearing founded on the parental belief that it is parents’ duty to “cultivate” their children and provide them with the necessary life skills for success. In contrast, “natural growth” parenting is based on the idea that as long as parents provided “love, food and safety their children will grow and thrive” (Lareau 2002:749). To distinguish further these two parenting styles she compares families from both classes and across whites and African Americans within three areas of childrearing: the organization of everyday life, language use and the interaction between families and institutions.

The organization of daily life, an important component of concerted cultivation, consists of middle and upper-class parents enrolling their children in multiple activities in order to develop talents. For these families, it is not uncommon to spend each day of the week involved in at least one different activity centered around children. Parents argue that by participating in many activities children learn important life skills such as teamwork and leadership and to cultivate potential talents and enjoyments (Lareau 2003) in order to “generally steer children toward a productive childhood” (Bianchi & Robinson 1997:333).

*The Effects of Extracurricular Activities on Educational Attainment*

Researchers have conducted studies examining the effects of involvement in particular activities on academic achievement for youth and adolescents and have consistently produced favorable results (Marsh & Kletiman 2003; Fletcher et al 2003; Broh 2002; Dumais 2002; McNeal 1995; Marsh 1992; Dowell et al 1972; Phillips & Schafer 1971). For instance, adolescent sport participation, net of other influences, has
been found to have a positive influence on GPA, college enrollment, completed postsecondary education and social psychological factors such as improved self-esteem, strengthened locus of control and increased homework dedication (Marsh and Kleitman 2003, Barber et al 2002, Broh 2002, Landers et al 1978). These scholars argued that involvement in sports created attitude adjustments translated into behavior conducive with academic advancement.

Other researchers have constructed activity indices and examined their effect on academic achievement and have, again, found a positive association (Fletcher et al 2003, Marsh 1992). These studies found that TEAP (total extracurricular activities participation), such as involvement in dance, music, sports and community service, is positively associated with academic achievement for both adolescents and children. The benefits extended to GPA, educational aspirations, increased college matriculation and reduced absenteeism for adolescents and positive teacher evaluations regarding social competence and overall academic performance for fourth graders. Yet, despite the examination of multiple activities, authors have assumed the effects are additive and have failed to examine the effect of each additional activity in which the child participates.

In the aftermath of Lareau’s (2003) Unequal Childhoods, research has broadened to test not only the possible effects of extracurricular activities but concerted cultivation. Cheadle (2008) used ECLS-K to test quantitatively Lareau’s concerted cultivation thesis in order to determine if social class explains the Black-White test score gap.
To do this, Cheadle (2008) created an index of child activity involvement, factors indicative of parental involvement with schools, and material academic resources.\(^3\)

Net of other factors, results indicated that parental investments in their children’s education through concerted cultivation was in fact a significant and important mediating factor which completely explained away the racial math and reading gaps at the beginning of kindergarten and in subsequent years. In conclusion, Cheadle (2008) supported Lareau’s (2003) argument that parenting styles are determined by class, not race.

Another recent study attempting to quantify Lareau’s notion of concerted cultivation is Bodovski and Farkas (2008). Also using ECLS-K, they limited their sample to white first graders with the goal of determining how concerted cultivation is linked to socioeconomic status and to determine the strength of this relationship. These authors compile a concerted cultivation index by including measures of “parental perception of responsibilities,” (e.g. reading stories, singing songs to the child, and helping with homework), children’s participation in activities and cultural trips taken in the accompaniment of parents, and an index that measured parental involvement with the school, a very similar construction to that of Cheadle (2008).

Results indicated, like Cheadle’s (2008), that concerted cultivation is strongly linked to both parental SES and child’s academic achievement and behaves as a mediator.

\(^3\)The child involvement index consisted of whether the child had ever participated in dance lessons, organized athletic activities, clubs or recreational programs, music lessons, art lessons and organized performing arts programs. Parental involvement with schools was comprised of measures such as whether the parent had attended open houses or PTA meetings, regularly attended parent-teacher conferences or volunteered to serve on a committee. In addition, he substituted a measure of material resources, as indicated by the amount of books present in the household, as a reasonable proxy for the cultural/human capital of the parents and their fostering of growth and development in the home.
between the two. Therefore, parents with high SES attempt to “cultivate” their children’s talents and academic achievement through engagement in children’s learning, frequent involvement with the school and by enrolling their children in activities and bringing them on cultural excursions. Yet, these authors stipulate that their results are independent of parental expectations for the achievement of their children. They do not necessarily “consciously” and “rationally” choose to cultivate their children, but instead, engage in behaviors and encourage particular behaviors of their children, because it comes naturally to them.4

**Cultural Capital**

Despite the positive associations between activities and academic performance, researchers have also acknowledged that not all activities carry the same “beneficial weight.” Although involvement in structured activities, regardless of the actual activity, can produce important life and cognitive skills and teach social competence, some activities produce more long-term returns and rewards than others (Lareau 2003). Defined by Lamont and Lareau (1988) as the “widely shared, highly status cultural signals (attitudes, preferences, formal knowledge, behaviors, goods and credentials) used for social and cultural exclusion” (156), cultural capital behaves as a mechanism between social status and educational outcomes (Roscigno and Ainsworth-Darnell 1999).

4 Bodovski and Farkas’ (2008) results suggested that cultivation may not be “instrumental” for childhood educational success. However, the authors acknowledge that the benefit concerted cultivation transmits to the children may be of a different nature. For instance, Lareau (2003) argues that these children from higher SES gain a sense of entitlement and Bodovski and Farkas (2008) suggest the growing sense of entitlement surfaced in their own results. Children who feel entitled can maneuver and interact with institutions, such as schools, more adeptly than others and are able to behave so as to make the system “work for them.” Likewise, as cultural capital theory states, teachers and other professionals may respond to these children more positively because they can demonstrate and convey important class specific knowledge and behaviors.
This mechanism operates within a highly stratified society in which particular cultural activities, behaviors and experiences can be viewed as competitive resources utilized to convey to both other individuals and institutions one’s social and economic position. Therefore, as Bourdieu (1973) stipulates, “possessing certain tastes, styles, ways of speech, skills and knowledge” (as cited by Bodvoski and Farkas 2008:3) can translate into academic success because social institutions, including schools, value and reward these particular behaviors (see also Lareau 2003, Dumais 2006). Activities such as dance, painting, attending the opera and foreign language classes are building cultural capital and are, therefore, more beneficial for conveying one’s economic background than other activities.

It is these activities and cultural excursions, which middle-class parents believe are important for building cultural capital, that has become the focus of most studies examining the relationship between participation and activities. Overall, researchers have answered with a qualified “yes” that activities are beneficial for child achievement. However, they have assumed a linear relationship (See Figure 1) in that activities are positively associated with achievement and that the effect must be additive. Therefore, the more activities in which a child is enrolled, the more they will positively influence achievement.

Surprisingly, we have yet to discover if involvement in numerous activities is always positive. My study expands and improves upon these studies by acknowledging participation in activities and cultural excursions as a component of concerted cultivation or structured parenting and seeks to test the possibility of a non-linear relationship.
Are There Limits to These Benefits?

Not all researchers are so quick to agree with the positive aspects of cultural capital and avid participation, and instead inquire whether children have become “over-structured” (Elkind 2006, see also 1981, Suranksy 1982, Postman 1982, Meyrowitz 1984)? They argue that these tendencies to “hurry” children could be detrimental for child development and could serve to erode childhood (Elkind 2006). The major concern of researchers from this school of thought is that the educational reform pushes for earlier attainment and creates a hectic childhood. They argue that increasing activities may not ensure additive positive effects, but instead counteract the benefits of the involvement and create a decline in performance. Such an effect would surface quantitatively in a curvilinear functional relationship between “hurried” childhoods and achievement (See Figure 3).

This “hurried child” syndrome rises out of pre-schools and kindergartens which have altered their foundation, reducing free time and notions of play in favor of an academic curriculum in order to foster early educational growth (Suranksy 1982; see also Elkind 2006). Supporters of this view argue that this is most notably seen in the changes in and extension of the American school curriculum which increases the amount of time children spend in school coupled with increased amounts of homework.

When school is looked upon as an assembly line and when there is pressure to increase production, there is a temptation not only to fill the bottles faster but to also fill them earlier. Why not put in as much at kindergarten as at first grade? Why not teach fourth-grade math at grade two? Indeed, as one professor mused, why not teach philosophy at grade three (Elkind 2006:50)?

Elkind (2006) argues that this increased pressure coupled with the likely stress is harmful
and detrimental for youth. Stress can have negative consequences, especially for mental health and later attainment. If one fails early, he or she may also experience less motivation.\(^5\)

Another concern of this school of thought is that even children’s time outside of the classroom has been transformed (Elkind 1981, see also 2006; Postman 1982) as children are infrequently allowed to play freely in their backyard or creatively with their neighborhood friends. Postman (1982) laments the loss of the easygoing nature of childhood play which has been replaced. “The games of American youth have become increasingly official, mock-professional, and extremely serious” (Postman 1982:129). Summer camp has also experienced this shift to mock-professional and serious “games” (Elkind 2006). Elkind (2006) argues that whereas camps used to focus on outdoor adventure and building friendships, camps today are focused on fine-tuning skills and abilities.\(^6\) Critics argue that such professionalism and reliance on learning “adult” behaviors and activities stunts child development skills, such as creativity, imagination and social interaction (Postman 1982).\(^7\) Psychologists, doctors and theorists are

\(^5\) In some communities kindergarteners are administered standardized tests and about fifteen percent of young children are “flunking kindergarten” (Elkind 2006: xxvii) based upon their poor performance on these examinations.

\(^6\) Dollars and Cents, a camp in Florida marketed towards eleven year-olds, consists of lectures about mutual funds and contains lessons in reading The Wall Street Journal (Elkind 2006).

\(^7\) The popular press has also expressed concern about children’s involvement in activities outside of the classroom, in particular little league and other sports teams. The fun of the game has been taken away, some argue, and what remains is a too competitive environment which teaches children that winning is everything, a concern which emerged even in the early 1980’s. In one Sports Illustrated article, Underwood argues that “the sine qua non of sport is enjoyment. When you take that away, it’s no longer a sport. Perhaps the worst creators of specialists are the Little Leagues in all sports. Although some observers believe there’s much value in them, the Leagues have their own ethics.”
concerned about hurried children; the mass media is targeting consumers by mentioning the hurried child. And yet, there is evidence to suggest that children are becoming more structured with each decade, despite these concerns (Quirke 2006). This study attempts to quantify these concerns by determining if threshold or curvilinear effects do occur. Do negative returns from activities result when a child participates in “too” many (See Figure 3)? And if it does, at what point is “too many”?

How Should Structure Matter?

No one would dispute the obvious benefits of these structured activities, as previous research indicates. However, is there a limit to these benefits? As previously stated, parents enroll their children in these activities to gain cultural capital and to learn important life skills to ensure their future success. Yet, as discussed by the “hurried child” theorists, structure could adversely affect specific child outcomes as well. For instance, if children engage in multiple activities per day in addition to schooling and homework, children may become over-structured. With traveling sports games and dedicating musical practicing, homework may become displaced or rushed in order to finish before a major game or scheduled event. The time needed to adequately learn a mathematical concept may be lost in the hectic transition. Therefore, although a child

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Advertising firms have also begun to capitalize on this notion of the “hurried child.” Dan-Active, an immune system booster in the form of a shake markets their product with commercials of children lagged with busy schedules which wears at their young vulnerable immune systems. The commercial depicts a child who fades away to ghost-like quality due to the demands of soccer practice, school and the copious amounts of homework. Yet, this nourishing shake can rejuvenate the child and help mothers ensure their children’s good physical health. Similarly, a commercial for the television Vivio also highlights children’s busy schedules who need to consult their calendars to see when dance or music are when parents are trying to “fit-in” a family movie night. Psychologists, doctors and theorists are concerned about hurried children; the mass media is targeting consumers by mentioning the hurried child.
may participate in and even excel at many activities, grades and academic performance could potentially suffer.

Likewise, with exhaustion plaguing these children as Lareau (2003) notes (see also Elkind 2006), performance on tests could also be adversely affected. Without adequate rest, mathematical errors might be frequent, ability to complete tasks could be slowed and comprehension minimalized.

Alternatively, interpersonal skills might also be negatively affected due to over-structured lives. Working and lower class children are allowed to play freely with their neighbors and peers (Postman 1982, Lareau 2003) and are not constrained by adult limitations or adult intervention. Such freestyle playing fosters creativity and imagination (Postman 1982). Middle-class children, however, are more apt to become bored when no activity is scheduled and have limited imagination (Lareau 2003). Even more problematic would be the result of diminished social capacity. Children who are accustomed to adult interaction and adult supervised activities may experience more difficulty in peer relationships, especially at school. Forming friendships and interacting with others without parent direction and involvement may be a difficult task to muster. As a result, these children may interact adeptly with adults, impressing teachers with the ability to communicate but fail at creating and maintaining friendships without this adult intervention.9

9 Additionally, although not examined in this study, another possible side effect of structured parenting could be a decrease in mental health. Elkind (2006) and even Lareau (2003), to some extent, argue that these middle-class children experience hectic, stressed lives. Stress can have physical ramifications as well as other mental health problems, such as unhappiness and perhaps even depression. Are we structuring children to the point that their happiness and mental health suffer? How much stress is too much stress for children? More generally, is there a notion of too much structure or is more “better.”
I explore three possible outcomes for these relationships. The first hypothesis is purely a positive linear relationship (See Figure 1).

As already indicated, this functional form has been assumed to be the relationship between activities and children’s outcomes. The second is the “threshold hypothesis” in which the effect is positive and linear to a certain level, at which point the effect begins to level off (See Figure 2). Although not previously explored by sociologists, this relationship might occur because, although activities teach important life skills needed for educational and social achievement, with participation in numerous activities, eventually there are no additional skills to be learned by enrolling in another activity; those skills have already been taught through another lesson. For example, taking soccer and baseball have already taught the child the lesson of cooperation and so enrolling the child in a third team sport might not have any additional benefits that can be viewed in educational and social outcomes. If this is the relationship then the data would level off after a particular amount of activities. The third possible functional form is a “curvilinear” hypothesis in which the effect not only levels off but also begins to curve downward (See Figure 3). As previously mentioned, those from the “hurried child” school of thought hypothesize this relationship. It is theorized that the additional stress of living a hurried existence with participation in numerous activities and little opportunity for creative leisure and relaxed free-time, in addition to the pressure to excel at both the activities and academically proves to be too much for young minds and bodies. As a result, when the child becomes “hurried,” such as participation in too many activities, the beneficial
effects of participation are eroded and lost and the functional relationship curves downwards.

Research Question

Despite theoretical concern for the “hurried” child and the admission that the goals of childhood have become increasingly academic, most quantitative research has assumed a linear relationship when examining the effects of extracurricular activities on academic, behavioral and social outcomes while ignoring the possibility for alternative relationship forms. My research rectifies this omission by examining the possibility for youth to be over-structured by asking:

What is the functional form of the relationship between children’s involvement in multiple structured activities, net of other factors, and academic and social achievement.

With increased focus on cultivating middle-class children and fostering talents in the form of multiple activities, it is important to understand the functional form of this relationship. Is the relationship linear as others have assumed? Or are youth really becoming over-structured as others fear which negates the positive effects on educational growth and stunts the child’s ability to excel at his or her potential?

I hypothesize that data will reveal a curvilinear relationship between structured activities and social and educational outcomes. Due to the fact that structured activities are organized and supervised by adults, children’s lives become increasingly adult focused and are involved in more adult interaction (Lareau 2003). Therefore, if children participate, at high numbers, in such activities, they may be less able to communicate and interact with children their own age. Their ability to impress teachers will remain high
but they may be less able to form friendships without direct adult involvement, play creatively with these peers and interact while utilizing important life skills such as sharing and cooperation without squabbling. This might be especially true if the structured activities are more individually oriented rather than those involving teams. I hypothesize that a curvilinear function will also be the true form between activities and educational achievement. This might occur because if children are being rushed between activities which occupy most of their days, they may have to squeeze in homework between rehearsals and practices and return home from the day exhausted. With perhaps little sleep to rejuvenate them, children may have a more difficult time paying attention during school days. Both of these could negatively affect grades and academic performance when that threshold has been crossed.
METHODS

Data:

Previous research has virtually ignored the possibility for non-linear alternatives for the relationship between activities and child academic and social achievement. One possibility for this omission is that many researchers have chosen to focus solely on the effects of involvement in one specific activity. Furthermore, most research has considered the effects of extracurricular activities for adolescent development with only minimal attention given to early childhood. This study rectifies these shortcomings by utilizing a recent nationally representative data set collected by the U.S. Department of Education entitled Early Childhood Longitudinal Study (ECLS-K). This longitudinal study provides information regarding children’s educational, familial, social, and cognitive experiences as they transition into kindergarten (1998-9) through the completion of middle school.

To select their sample, the U.S. Department of Education utilized a multi-stage probability sampling technique in which they selected approximately 1,000 schools with twenty-five students selected from each of these institutions. Those sampled come from diverse socioeconomic, racial and ethnic backgrounds and include both public and private schooled children. Data was collected through face-to-face interviews and questionnaires distributed to children, parents, teachers and school administrators allowing for a comprehensive and reliable source of information regarding factors which influence and
shape child educational and social development. These are the first data collected to follow a single cohort of children from entry to school through the conclusion of their middle school years with data currently collected at six distinct points,\textsuperscript{10} making these data apt for this study in examining how participation in structured activities affect children at different stages in their childhood—kindergarten through fifth grade.

\textit{Independent Variables:}

\textit{Structure.}

In order to test the functional form between structure and educational and social achievement I constructed and tested two measures of structured parenting. The first of these consisted of creating an index of the organized and structured extracurricular activities in which youth have participated. Parents were asked to report whether the child had ever (a) participated in dance, (b) participated in athletic events, (c) participated in organized clubs, (d) taken music lessons, (e) participated in drama classes, (f) participated in art classes, (g) participated in organized performance, and (h) participated, outside of school, in non-English language lessons.

This measure indicates children’s participation in structured activities, which are defined as parent organized activities dedicated to developing children’s skills (McHale et al 2002). This measure thereby allows for an estimation of whether these children are “over-structured.” A drawback of this measure is that it does not include a time-frame for participation in these activities. Therefore, there is no way to determine whether

\textsuperscript{10} Data were collected at the beginning and conclusion of kindergarten, the beginning and conclusion of first grade, third grade and fifth grade. Data are currently being collected for the eighth grade but have not yet been released. As some independent variables are only available at particular times, I limit my study to the four data collection points in which specific questions about structured activities were asked.
participation in these activities is simultaneous or independent of one another. As I
cannot be certain as to how many activities these children are involved in on a daily or
weekly basis, my results are a conservative estimate about how participation affects their
educational and social achievement.

The second structure index adopted a cultural capital focus with measures
consisting of participation in cultural excursions in which parents were asked to indicate
whether in the past month someone had (a) gone to the library with child, (b) gone to a
concert with child, (c) gone to the museum with child, (d) gone to the zoo with child, and
(e) gone to a sporting event with child. These measures were all re-coded into continuous
dummy variables with responses ranging from 0 (no, had not attended the event) to 1
(yes, had attended the event). This index improves upon the limitation of the first
measure by including a time frame during which the participation must have taken place.
It also represents conscious parental investment in fostering children’s cultural
knowledge which is an important component of structured parenting.

Controls

As demonstrated by previous research, there are many background factors which
contribute to both participation in extracurricular activities and academic achievement.
Therefore, in order to isolate the relationship between structured childhood and
achievement, I control for the following: (a) socioeconomic status as measured by a
compilation of parents’ education, occupation, and income divided into continuous
quintiles ranging from 1 (lowest) through 5 (highest), (b) race, re-coded into dummy
variables of Black, Hispanic1, Hispanic 2, Asian, Pacific, Indian or Multiple Races with
White as the reference category, (c) number of siblings, (d) and whether or not the child is currently living with biological parents re-coded as a dummy variable 0 (no, not currently living with biological parents) and 1 (yes, currently living with biological parents). See Table 1 for the means and standard deviation of these variables.

**Dependent Variables**

To examine the impact of children’s involvement in extracurricular activities on their academic and social achievement, I utilize scales previously constructed by ECLS-K. Refer to Table 1 for names, means, and the standard deviations of these scales used in this study.

**Educational Well-Being.** Variables used to determine educational achievement include (a) reading Item Response Theory (IRT) scale for all grade levels including letter recognition, spelling proficiency, reading comprehension and vocabulary, with more proficiency required during higher grades (b) math IRT scale for all grade levels including simple mathematical equations, number sense, algebra, geometry, data analysis, and properties.\(^{11}\)

**Social Well-Being.** Variables utilized to determine a child’s command of social situations and interaction include (a) interpersonal skills as assessed by the teacher regarding a child’s ability to interact with other children including cooperation, sensitivity, adeptly expressing opinions, and helping other children with responses ranging from 1 (poor interpersonal skills) through 4 (higher interpersonal skills), (b) self-control as assessed by the teacher regarding the child’s ability to behave appropriately and able to control

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\(^{11}\) Supplemental analyses also included the examination of general knowledge (kindergarten and first grade) and science (for third and fifth grades) IRT scales. These analyses are not presented here but did exhibit similar results.
emotions such as temper with responses ranging from 1 (has low self-control) through 4 (has high self-control).  

**Analytic Strategy:**

In order to determine the functional form of the relationships between structured activities and child academic and social achievement I began my analysis by constructing a series of dummy variables for the structure indices. This allowed for the creation of a continuous measure of structure rather a compilation of activities which assumes a linear relationship. For the activity measure of structure which included variables such as dance and music, the activities were compiled to form a variable measuring structure which ranges from 0 (participates in no activities) to 8 (participates in 8 activities). However, due to the lack of some variable measures in later grades, the measure was reduced to include only the common activities for all age levels, thereby creating a measure ranging from 0 through 5. Similarly, this was also done with the cultural excursion activities creating a similar index ranging from 0 (participating in no cultural excursions during the past month) through 5 (participating in 5 cultural excursions in the past month). This creation of continuous structure variables by compilation of dummy variables measuring activities is a strength of this study. No previous research has constructed such a measure and therefore has been unable to determine the exact functional form of this relationship. Likewise, by measuring and analyzing structured childhood through two separate and

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12 Results for self-control as assessed by teachers were conducted in supplementary analyses and are not presented here.

13 Drama, foreign language classes and organized performance were dropped due to the omission of them in later years. I also tested for the structure variable comprised of eight dummy variables for kindergarten and found no statistically significant difference from the measure including five, most likely due to small sample sizes for those who participate in six, seven or eight activities.  

22
distinct indices, it strengthens the likelihood that the findings are more accurately capturing the possibility that children are being “hurried” or “over-structured.”

After the construction of these structure indices, I ran Ordinary Least Squares (OLS) Regression in order to isolate the relationship between participation and achievement. Beginning with data collected at the end of kindergarten, I ran these analyses for each dependent variable with each measure of structure, both with and without the control variables. I then repeated these same analyses for each additional year in which data was collected (including first grade, third grade, and fifth grade).\textsuperscript{14} By utilizing OLS it allowed me to, most importantly, control for socioeconomic status and financial resources. Those from higher SES backgrounds often experience more advantages within school as well as at home. Therefore, by controlling for this variable, we can be more confident that the educational and social scores a child received is net of social class advantages and can be attributed to participation in activities. Likewise, controlling for the amount of siblings one has is equally important. Those who come from large families may experience a diminishing of resources. Therefore, both this method and construction of measures is the most apt for this particular study and successfully advances previous research by measuring structure in these ways.

I managed missing data by utilizing multiple imputation. This consisted of imputing values of all variables five separate times in order to estimate the values of the missing data. Results, however, were very similar to those produced utilizing listwise deletion of missing values.

\textsuperscript{14} At the time of analysis data had yet to be released for the cohort’s 8\textsuperscript{th} academic year.
RESULTS

Number of Activities and Reading scores: Kindergarten

Table 2 depicts how participation in structured activities relates to kindergarten reading scores. Model 1 presents the predictions based upon participation in structured activities as measured by participation in cultural excursions and Model 2 depicts the predictions based upon participation in extracurricular activities. By perusing Model 1 the coefficients initially appear to describe a curvilinear effect, or a downward turn after four activities, but after the application of more stringent testing, this relationship is re-established as a threshold effect. By altering the reference category among the dummy variables, I tested for statistical significance at each increment of activities. For example, I compared the significance between participating in three activities versus four, and four activities versus five. Finding no such significance after one activity, I have established this threshold effect as emerging after participation in one activity. This indicates that after this one activity, participation in additional activities offers no additional benefits for Kindergarten reading scores.

A threshold effect also exists for the extracurricular activities. Results in Model 2 initially suggest that the effect is linear: as the child participates in more activities, his or her reading scores also increase. However, upon more stringent testing, I discovered that the coefficients from participation in four activities and five activities are not statistically

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15 Both Models are adjusted for control variables: Parents’ SES, number of siblings, race/ethnicity, and whether the child lives with biological parents.
significant and therefore not different from one another. This indicates a threshold effect after four activities, where subsequent activities no longer produce positive reading benefits for the child. Therefore, these models indicate that despite previous linear assumptions in the education literature, participation in structured activities, as measured in two different ways, actually produce a threshold effect, although each model thresholds at different points.

*Number of Activities and Interpersonal Skills: Kindergarten*

Table 3 presents the results of how participation in activities affects a kindergartener’s interpersonal skills, as rated by the teacher. As in the last table, Model 1 depicts results for cultural excursions and Model 2 for extracurricular participation. Also similarly, both models depict a threshold effect after *two* activities after altering reference groups and establishing statistical significance. Therefore, for participation in both cultural events and extracurricular activities, kindergartener’s receive no extra boost to their interpersonal skills after they have participated in two activities.

*Number of Activities and Reading scores: Fifth Grade*

This threshold pattern extends to fifth graders as depicted in Tables 4 and 5. Table 4 shows the relationship between fifth grade reading scores and the number of activities in which children participate.\(^\text{16}\) Although appearing relatively linear, as with Kindergarten, it is re-established as a threshold effect after three activities. Activity numbers 3, 4, and 5 are not statistically significantly different from one another. In

\(^{16}\) As there are no cultural excursion variables for this grade level, results are solely based upon extracurricular participation among fifth graders.
comparison to kindergarten, fifth grade has a slightly smaller threshold level: after three activities children’s reading scores are unchanged.

**Number of Activities and Interpersonal Skills: Fifth Grade**

Table 5 presents how participation in extracurricular activities is related to interpersonal skills at the fifth grade level. As with reading, a threshold emerges after three activities, although, the pattern is slightly different. In all other instances participation in one activity had significant impact for both reading and interpersonal skills. For fifth grade interpersonal skills, however, participation in one activity is not statistically significantly different from *no* activities. It is only with two and three activities that linearity forms followed by the leveling off after three.
DISCUSSION

Are Highly Structured Environments Detrimental for Children?

Despite the concern expressed by researchers and the general public, I find virtually no evidence that children experience negative outcomes as a result of being involved in many activities. If highly structured environments were problematic for children I should have observed a curvilinear relationship between activities and children’s outcomes. In other words, there should have been a point where additional activities were associated with poorer reading or interpersonal skills, yet I found none. As previously discussed, the mass media depicts a portrait of children as miniature adults who are over-tired, over-structured and over-worked at young ages (Elkind 2006). Advertising firms capitalize on this notion by selling products to the parents of these over-structured youth which will help protect immune systems against hurried lives. Psychologists warn parents of the ramifications that await children who are forced into adult-like lives rather than enjoying the freedom of youth. Yet, evidence supplied by theorists in this school of thought is often anecdotal or based on supposition.

Furthermore, although these researchers have described this changing nature of child-- more rigid and academic oriented pre-schools, the adultification of summer camps, the reduction of free time, increased pressure to succeed academically and excel in all area of life, they did not quantitatively demonstrate that these changes actually

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17 In supplemental analysis, the only curvilinear effects uncovered were for third grade reading scores and social skills. This pattern could not be supported in any other analyses.
translate into negative consequences for children-- their discussion of children’s increasingly structured lives assumes that children with the most structure will exhibit negative outcomes.

But with respect to the outcomes measured in this study (reading and interpersonal skills), I was unable to find evidence to support this hypothesis in a nationally representative sample of 17,527 children.

*Some Structure is as Good as Lots of Structure*

My results also counter the common assumption, held in previous literature, that the relationship between structured activities and children’s well-being is linear. Previous scholars have typically estimated a linear relationship between structure and children’s outcomes, assuming that if one activity offers positive advantages, increasing the activity level of the child will continue to increase these advantages. However, my study demonstrates that the actual functional form between participation and educational and social well-being is better described as a threshold form. Some participation in activities offers additional benefits to children with respect to their reading and interpersonal skills, but these positive effects level off with increased activities.

In most analyses this threshold occurs between two and four activities. Cultural excursions consistently possess a lower threshold than extracurricular activities at one and two activities for reading and interpersonal skills, respectively. Extracurricular activity threshold point averages to three activities across kindergarten and fifth grade and considering both outcomes. No analyses demonstrated an entirely linear effect. The pattern consistently demonstrates that large amounts of participation is related to better
childhood outcomes than no or little participation, but do not produce better outcomes as compared to moderate participation. Therefore, results indicate that only a few activities are needed in order to maximize the educational and social benefits for children.

Measurement Issues

My measures also indicate that less than 1% of the variation in well-being actually can be attributed to the child’s participation in structured activities. This contradicts common belief. According to the cultural capital theorists, parents enroll their children in these activities in order to foster and develop talents which will help them succeed academically. According to the Hurried Child scholars, parents should be cutting back on activity enrollment because it can be detrimental to children’s well-being. Both of these schools of thought assume that activity participation has a significant impact on educational success and attainment, either positive or negative depending on the outlook. Yet, results here demonstrate that the relationship is only modest and that even though “more is not better,” as was commonly believed and the effects do level off, these effects may be only minute to begin with.

Of course, making a definitive statement about the relationship between structured activities and children’s outcomes and the importance of this relationship is premature, given several data limitations. There are several reasons to doubt whether the measures here successfully identify over-structured children. For example, the ECLS-K data do not provide information regarding how much time is spent in each activity, which would likely provide a more accurate picture of how structured the daily lives of these
children actually are. For instance, the questions for extracurricular activities are framed as “Has your child ever…,” which does not allow us to establish how many of these activities the children are involved in simultaneously. This becomes more problematic for fifth graders who have had more years to participate in activities at distinct times. Without assurance of simultaneous participation, it is difficult to gage how “hurried” these children actually are. Questions regarding cultural excursions improve upon this by asking “How many times in the past month has your child gone to…?” By the inclusion of a time frame, we can see how structured children’s lives are during the past month, but only with regards to these cultural activities which may not be as important for establishing “hurried lives” as participation in activities with more rigorous commitments.

In addition, I was only able to assess certain activities in this study. My measure of extracurricular activities likely misses some important activities such as church, religious education classes, community service, choir or even time spent with a tutor. Instead, it lists only: sports participation, music lessons, organized performance, art lessons and dance. The activities also do not allow for multiple types to fall under one category. For example, one question inquires if the child has ever participated in sports, but the child could participate in more than one sport, either in different seasons or simultaneously. Allowing for an exhaustive, comprehensive list of child activities in addition to knowing how many of them are simultaneous would create a more accurate portrait of the structured child. Therefore, I posit that my estimate of the effects of structure on well-being is likely conservative and it is premature to dismiss the possibility
that highly structured environments are problematic for children. Better measurement of
the degree children’s lives are structured could reveal problematic outcomes for over-
structured lives that others have expected.

Extracurricular activities also seem to be more pronounced than cultural
excursions in the prediction of well-being, and therefore, perhaps a better measure of
structure. One explanation could be that extracurricular activities often involve prolonged
participation; dance, music and sports last for an extended time period whereas trips to
the zoo or museum last for a few hours and may not be a reoccurring experience.

Therefore, it appears important to discover not only what children are doing on a given
day, but over extended periods of time. What do their schedules look like over the course
of a week? A month? Or even a year?

Additional follow-up studies should also examine a broader range of dependent
variables. I presented results for children’s reading test scores, although in supplemental
analyses I also predicted math and science tests. While the results were similar across
these various test score measures, it may be important to look at different kinds of social
outcomes. In this study, teachers were responsible for evaluating the social skills of the
children but it might be interesting to look at how peers evaluate them. Children who
participate in a multitude of adult organized activities are accustomed to interacting with
adults and may find themselves more comfortable around adults than peers. Therefore,
although they may adeptly demonstrate interpersonal skills to teachers, they may not be
well-liked by other children. Also, perhaps curvilinearity does not exist in educational or
social well-being, but it could exist in mental or emotional well-being, as Elkind (2006)
discusses in “The Hurried Child”. Children who participate in multiple activities may still perform well on exams and interact adeptly with peers, but may find themselves under considerable stress. This stress could manifest itself in depression, anxiety or discontentment. Therefore, examining how structure affects mental health of not only the children, but the parents, is important to consider. Parents may be trying to balance work, home, and the transporting of children to and from activities, in addition to the possible financial strain. Their lives, as a result, could become “hurried” and they may also experience negative consequences to their mental health and well-being that. It may be that examining other outcomes, both for children and their parents, will reveal the curvilinear hypotheses that went unsupported by my analyses.

Finally, I examined kindergarteners and fifth graders, but the patterns may change among adolescents. As my results indicated, the importance of activities, although minimally, did increase with age and this trend could continue into adolescence when a wider range of activities is available and pressure to succeed more pronounced. This could be especially true in high school where those on a college-preparatory track are informed that participation in multiple activities, in addition to strong grades, is essential for admission into higher education institutions. The pressure and combined stress could produce a “hurried adolescent,” which might manifest itself in reduced mental health quality.

In conclusion, despite increasing concern about the “hurried child,” results here do not support a curvilinear hypothesis. Instead, by utilizing more precise measures of structure than previous scholarship, my results indicate that the functional form between
participation in structured activities and child outcomes is threshold—participation in some activities improves children’s reading and interpersonal scores but these beneficial effects quickly wane. Therefore, although enrolling children in a multitude of activities will not produce unlimited additive effects, neither will extended participation result in a decline in child well-being. However, even though evidence suggests that children may not be harmed by high levels of structured activities, there is also no real benefit in parents enrolling their children in a multitude of activities; doing so will not further their children’s academic success and social well-being. In fact, although no curvilinear effects were discovered in this study of how participation affects children’s lives, we know little about how increased structure affects parents. For instance, enrolling children in structured activities is often costly and could strain finances. In addition, with the increase in single-parent families and families comprised of two breadwinners, negotiating schedules might cause parental time constraints and increased stress levels. Transporting children to multiple activities requires parents’ time and energy, reducing discretionary time for exercise, relaxation, and activities that strengthen marital bonds. We need to know more about how high levels of structured activities for children affect parents’ mental and physical health and the quality of family relationships. Results from this study suggest that moderate participation in activities is sufficient for children’s educational and social outcomes. And although I found no evidence of a curvilinear effect, future research should examine the effect of children’s participation in structured activities on parents’ well-being.
APPENDIX

Figure 1. The “Linear” Hypothesis

Figure 2. The "Threshold" Hypothesis
Figure 3. The “Curvilinear” Hypothesis
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
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<tr>
<td>K Reading Skills</td>
<td>41.05</td>
<td>13.75</td>
</tr>
<tr>
<td>K Interpersonal Skills</td>
<td>3.12</td>
<td>0.64</td>
</tr>
<tr>
<td>Fifth Reading Skills</td>
<td>139.41</td>
<td>23.18</td>
</tr>
<tr>
<td>Fifth Interpersonal Skills</td>
<td>3.08</td>
<td>0.64</td>
</tr>
<tr>
<td><strong>Structure Measures</strong></td>
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<td></td>
</tr>
<tr>
<td>K No Activities</td>
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<td>K 1 Activity</td>
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<td>0.47</td>
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<tr>
<td>K 2 Activities</td>
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<td>0.34</td>
</tr>
<tr>
<td>K 3 Activities</td>
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<td>0.24</td>
</tr>
<tr>
<td>K 4 Activities</td>
<td>0.02</td>
<td>0.13</td>
</tr>
<tr>
<td>K 5 Activities</td>
<td>0.003</td>
<td>0.06</td>
</tr>
<tr>
<td>K No Cultural Excursions</td>
<td>0.21</td>
<td>0.41</td>
</tr>
<tr>
<td>K 1 Cultural Excursion</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>K 2 Cultural Excursions</td>
<td>0.23</td>
<td>0.42</td>
</tr>
<tr>
<td>K 3 Cultural Excursions</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>K 4 Cultural Excursions</td>
<td>0.11</td>
<td>0.32</td>
</tr>
<tr>
<td>K 5 Cultural Excursions</td>
<td>0.03</td>
<td>0.18</td>
</tr>
<tr>
<td>Fifth No Activities</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Fifth 1 Activity</td>
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<td>0.43</td>
</tr>
<tr>
<td>Fifth 2 Activities</td>
<td>0.14</td>
<td>0.35</td>
</tr>
<tr>
<td>Fifth 3 Activities</td>
<td>0.08</td>
<td>0.26</td>
</tr>
<tr>
<td>Fifth 4 Activities</td>
<td>0.03</td>
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<tr>
<td>Fifth 5 Activities</td>
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<td><strong>Controls</strong></td>
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<td>Socioeconomic Status</td>
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<td>White</td>
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<tr>
<td>Black</td>
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<td>0.35</td>
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<tr>
<td>Hispanic 1</td>
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<td>0.28</td>
</tr>
<tr>
<td>Hispanic 2</td>
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<td>0.28</td>
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<tr>
<td>Indian</td>
<td>0.02</td>
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<td>Pacific</td>
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<td>Asian</td>
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<td>Multiple Races</td>
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<td>0.16</td>
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<tr>
<td>Biological Parents: K</td>
<td>0.62</td>
<td>0.48</td>
</tr>
<tr>
<td>Biological Parents: Fifth</td>
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<td>0.49</td>
</tr>
<tr>
<td>Number of Siblings: K</td>
<td>1.77</td>
<td>1.08</td>
</tr>
<tr>
<td>Number of Siblings: Fifth</td>
<td>1.82</td>
<td>1.06</td>
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</table>

Figure 4. Means and Standard Deviations used in the Analysis: ECLS-K (N=17,527)
### Figure 5. OLS Regression for Kindergartener's Participation in Structured Activities on Reading Skills

<table>
<thead>
<tr>
<th></th>
<th>Cultural</th>
<th>Extracurricular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Activity</td>
<td>0.7919*</td>
<td>1.341***</td>
</tr>
<tr>
<td></td>
<td>(0.3608)</td>
<td>(0.2458)</td>
</tr>
<tr>
<td>2 Activities</td>
<td>1.075**</td>
<td>2.859***</td>
</tr>
<tr>
<td></td>
<td>(0.3685)</td>
<td>(0.3278)</td>
</tr>
<tr>
<td>3 Activities</td>
<td>1.132***</td>
<td>4.258***</td>
</tr>
<tr>
<td></td>
<td>(0.3431)</td>
<td>(0.4453)</td>
</tr>
<tr>
<td>4 Activities</td>
<td>1.370***</td>
<td>5.936***</td>
</tr>
<tr>
<td></td>
<td>(0.389)</td>
<td>(0.7642)</td>
</tr>
<tr>
<td>5 Activities</td>
<td>0.3393</td>
<td>7.106***</td>
</tr>
<tr>
<td></td>
<td>(0.0695)</td>
<td>(1.667)</td>
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<tr>
<td>Constant</td>
<td>32.78</td>
<td>33.11</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.1554</td>
<td>0.1635</td>
</tr>
</tbody>
</table>

* p <.05, ** p<.01, ***p<.001

All Models are Net of Control Variables
Model 1: No statistically significant difference after 1\(^{st}\) activity
Model 2: No statistically significant difference after 4\(^{th}\) activity
R-Squared without activities: .1548; R-Squared with both measures of activities: .1641

### Figure 6. OLS Regression for Kindergartener's Participation in Structured Activities on Interpersonal Skills

<table>
<thead>
<tr>
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<tr>
<td>Model 1</td>
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<td>1 Activity</td>
<td>0.0093</td>
<td>0.0331**</td>
</tr>
<tr>
<td></td>
<td>(0.0152)</td>
<td>(0.0117)</td>
</tr>
<tr>
<td>2 Activities</td>
<td>.0393*</td>
<td>0.0981***</td>
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<tr>
<td></td>
<td>(0.0151)</td>
<td>(0.016)</td>
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<tr>
<td>3 Activities</td>
<td>.0673***</td>
<td>.1357***</td>
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<tr>
<td></td>
<td>(0.0159)</td>
<td>(0.0222)</td>
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<tr>
<td>4 Activities</td>
<td>.0687***</td>
<td>.1187**</td>
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<tr>
<td></td>
<td>(0.0186)</td>
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<td>5 Activities</td>
<td>0.0208</td>
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<td></td>
<td>(0.0287)</td>
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<td>Constant</td>
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<tr>
<td>R-Squared</td>
<td>0.0473</td>
<td>.049</td>
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</table>

* p <.05, ** p<.01, ***p<.001

All Models are Net of Control Variables
Model 1: No statistically significant difference after 2\(^{nd}\) activity
Model 2: No statistically significant difference after 2\(^{nd}\) activity
R-Squared without activities: .0461; R-Squared with both measures of activities: .050
### Extracurricular Model 1

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.873***</td>
<td>(0.4716)</td>
</tr>
<tr>
<td>2</td>
<td>4.503***</td>
<td>(0.5232)</td>
</tr>
<tr>
<td>3</td>
<td>6.886***</td>
<td>(0.676)</td>
</tr>
<tr>
<td>4</td>
<td>6.188***</td>
<td>(0.9814)</td>
</tr>
<tr>
<td>5</td>
<td>7.674***</td>
<td>(2.168)</td>
</tr>
<tr>
<td>Constant</td>
<td>124.44</td>
<td></td>
</tr>
</tbody>
</table>

R-Squared: 0.2752

* p <.05, ** p<.01, ***p<.001
All Models are Net of Control Variables
Model 1: No statistically significant difference after 3rd activity
R-Squared without activities: .2650

Figure 7. OLS Regression for Fifth Graders’ Participation in Structured Activities on Reading Skills

### Extracurricular Model 1

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0178</td>
<td>(0.0166)</td>
</tr>
<tr>
<td>2</td>
<td>.0621***</td>
<td>(0.0165)</td>
</tr>
<tr>
<td>3</td>
<td>.1513***</td>
<td>(0.0224)</td>
</tr>
<tr>
<td>4</td>
<td>.1440***</td>
<td>(0.0337)</td>
</tr>
<tr>
<td>5</td>
<td>.2527***</td>
<td>(0.0728)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.871</td>
<td></td>
</tr>
</tbody>
</table>

R-Squared: 0.0628

* p <.05, ** p<.01, ***p<.001
All Models are Net of Control Variables
Model 1: No statistically significant difference after 3rd activity
R-Squared without activities: .0558

Figure 8: OLS Regression for Fifth Graders’ Participation in Structured Activities on Interpersonal Skills
REFERENCES


