

Examining After School Activities: Do Breadth and Intensity Matter?

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Objectives

The positive effects that participation in extracurricular activities has on youth development have been widely studied (Eccles, Barber, Stone, & Hunt 2003; Peck Roeser, Zarrett, & Eccles, 2008). Many researchers have noted the positive impact of participation in after school activities, highlighting that participation in extracurricular activities promote healthy development, academic resilience and may lead to the prevention of involvement in risky behaviors (Darling, Caldwell, & Smith, 2005; Eccles & Barber, 1999; Eccles et al., 2003; Fredricks, & Eccles, 2010; Fredricks, 2012; Gardner, 2008).

The research presented here addresses the research question: what is the relationship between participation in after school activities and their impact on youth development? This study expands prior research in this field in three key ways. First, we utilize two variables – intensity and breadth – to represent engagement in after school activities. Secondly, we will examine the effects of breadth and intensity on GPA, teacher and community support, family support, school climate, and risky behaviors. And finally, we will explore the possibility of a quadratic relationship amongst these variables of interests.

Theoretical Perspectives

Importance of After School Activities

As previously stated, the benefits of participation in after school activities in relation to academic success has been widely studied (Eccles, Barber, Stone, & Hunt, 2003; Peck Roeser, Zarrett, & Eccles, 2008). The positive impact of extracurricular involvement can also be extended to the social realm as well, where researchers have shown extracurricular participation can be linked to improved adjustment (Darling et al., 2005); lower rates of risky behaviors

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(Eccles & Barber, 1999; Fredricks 2010); and greater civic and occupational success (Gardner et al., 2008).

Recently researchers who study the importance of after school activities have begun to discuss better ways of measuring engagement. This new definition of engagement incorporates factors such as breadth, intensity (dosage), and duration (Bonhert, Fredricks, Randall, 2010; Busseri, Rose-Krasnor, Willoughby, & Chalmers, 2006; Busseri & Rose-Krasnor, 2009). These variables are useful for examining the relationship of both the time spent engaging in extracurricular activities (intensity) and the number of activities (breadth) have on academic outcomes. Breadth of involvement provides a richer description of the student's broad range of skills and interests, while examining intensity represents commitment and possibly skill development/mastery (Bonhert et al., 2010; Busseri et al., 2006, Busseri & Rose-Krasnor, 2009). Busseri and Rose-Krasnor (2009) highlight the need to treat breadth and intensity as related but separate, noting several of their research groups' studies which demonstrated the unique relationships with various academic and social outcome variables (Busseri et al., 2006; and Busseri et al, 2009).

Positive Youth Development

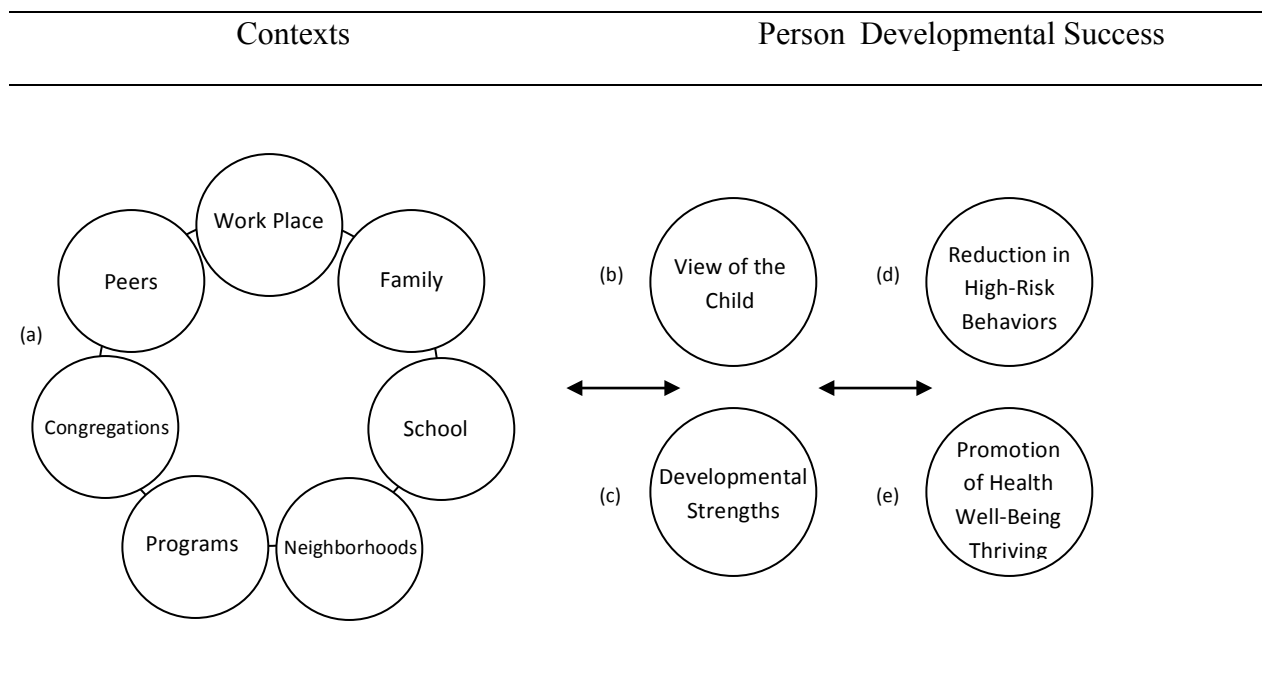
To understand the role of extracurricular activities, extracurricular activities are placed within the framework of positive youth development. In their review of the theory and research on positive youth development, Benson, Scales, Hamilton, and Sesma (2006) identified six essential principles about which there is broad consensus, including (a) youth have the inherent capacity for positive development; (b) positive development is enabled through relationships, contexts, and environments that nurture development; (c) positive development is enhanced

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when youth participate in multiple meaningful relationships, contexts, and environments; (d) all youth benefit from these opportunities, the benefits of which generalize across gender, race, ethnicity, and family income; (e) community is a critical delivery system for positive youth development; and (f) youth themselves are major actors in their own development, serving as a central resource for creating the kinds of relationships, contexts, environments (ecologies), and communities that facilitate optimal development.

The core ideas on positive youth development involve those represented in Figure 1. The developmental contexts from an ecological perspective where youth are located (a) interact with the inherent capacity of youth to grow and thrive (b); their developmental strengths, skills, competencies, values and dispositions (c); and two related aspects of developmental success, (d) the reduction of high-risk behaviors and (e) the promotion of healthy well-being or thriving.

Figure 1. Core Positive Youth Development Constructs.



Source: Benson, Scales, Hamilton, & Sesma (2006)

Current Study

Drawing from the Positive Youth Development model (Benson, et al., 2006), the current study examines the relationship between dosage and breadth of participation in extracurricular activities and their association with developmental assets and risky behaviors. Similar to the findings by Busseri and Rose-Krasnor (2009), we hypothesize that intensity and breadth are related but separate constructs (more details in final paper). Secondly, we hypothesize that there is a positive relationship between extracurricular engagement and developmental assets; and a negative relationship between extracurricular engagement and involvement in risky behaviors. Lastly, we hypothesize that the relationship between extracurricular engagement and the outcome variables is not linear –having those in the extremes being more vulnerable for involvement in risky behaviors and receiving less positive assets. In other words, while engaging in extracurricular activities has a positive relationship with academic (or social) performance, this is only true up to a certain amount, at which point we can observe that too much time spent on activities has a negative impact on the outcome variable (Fredricks & Eccles, 2010; Fredricks, 2012; Rose-Krasnor et al., 2006).

Methods & Data Source

Minnesota Student Survey (MSS)

The current study entails a secondary analysis of the Minnesota Student Survey database. The survey was designed by an interagency team from the MN Departments of Education, Health and Human Services, Public Safety, and Corrections to monitor important trends and support planning efforts of local public school districts and the four collaborating state agencies. The MSS is administered every three years to students in 6th, 9th, and 12th grades. During each

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administration year all operating public school districts are invited to participate, including correctional facilities housing youths. In 2010, 130,908 students participated.

Measures of Developmental Assets & Risky Behaviors

Measures of family support (FS), school climate (SC), community support (CS), and risky behaviors (RB) were created based on factors expected from theory and prior research and assessed through Confirmatory Factor Analysis (refer to Palma et al., 2012 for fit statistics) (See Appendix A for the items included in each scale). Measures were Rasch-scaled with Winsteps 3.74 (Linacre, 2012). Rasch scaling was used to create scale scores, providing scale (statistical) properties that make them stronger variables in General Linear Model (GLM) based analyses. Rasch scales move indices from an ordinal level of measurement to interval level. Rasch analysis also provides a strong tool to evaluate the rating scale structure of survey rating scale items and to estimate reliability of each measure.

Measures of Extracurricular Engagement

After-school activities refer to structured leisure activities offered as extracurricular activities or as after school programs for youth. Seven items from the Minnesota Student Survey were identified under this condition (Table 2). Breadth is defined as the total number of after school activities in which a student has participated. Intensity is currently being defined and it will be presented in the final version of the paper.

After school activities items 2010 Minnesota Student Survey.

After School Activities Items

During the last 12 months, how often have you participated in the following activities?

1. Fine arts activities (lessons, band, choir, dance, drama, etc.)
 2. Club or community sports teams
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3. School sports teams
 4. Community clubs and programs (4-H, Park and Rec, Community Ed. Etc.)
 5. Mentoring programs (as mentor or being mentored)
 6. Religious activities (religious services, education, youth groups, etc.)
 7. Tutoring, homework help or other academic programs
-

Analysis

Pearson correlations will be used to investigate the association between breadth and intensity. Multiple regression analyses with breadth and intensity as the predictor indicators, and GPA, Community Support measure, Family Support measure, and School Climate measure as the outcome measured would be used to investigate the association between extracurricular engagement, developmental assets and risky behaviors, and to further explore the linear assumption of these associations.

Preliminary Results

A total of 47387 of 9th grade students from the 2010 Minnesota Student Survey administration were considered for the study. All participants responded to at least one extracurricular activity. Table 2 presents a breakdown of the demographic information.

Table 2: Information of 9th grade students from the 2010 Minnesota Student Survey. N = 47387.

	%
Male	49.6
Free or Reduced-price Lunch	26.9
American Indian	1.3
Black, African or African American	5.4
Latino	6.6
Asian American or Pacific Islander	5.5
White	72.1
Multiple Race or Other	9.1

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Pearson correlations were conducted to identify the association between the predictor and outcome variables (Table 3). Initial results suggest that all developmental assets and GPA have a positive correlation with one another and a negative correlation with risky behaviors. Breadth is positively associated with all developmental assets and GPA, and not associated with risky behaviors. Correlations with Intensity and regression analyses will be provided in the final paper.

Table 3: Correlation matrix of predictor and outcome variables.

	CS	FS	SC	RB
Community Support (CS)	1			
Family Support (FS)	.48	1		
School Climate (SC)	.43	.32	1	
Risky Behaviors (RB)	-.31	-.32	-.27	1
GPA	.27	.29	.23	-.31

Note: All correlations are significant ($p < .01$).

Similarly, preliminary results suggest that the relationship between GPA and breadth of after school participation is not linear. Marginal GPA increases as the number of extracurricular activities increases however, participating in more 5 activities or more seem to have a negative impact on GPA (Figure 2). More results will be provided in the final paper.

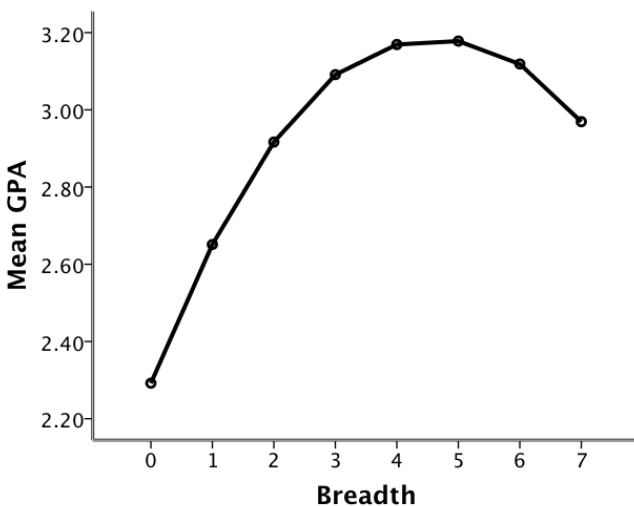


Figure 2. Marginal mean GPA conditioned on breadth of after school activities participation.

Significance and Future Research

A growing body of research indicates that participation in after-school activities provides a medium to promote healthy youth development, increase educational outcomes and potentially reduce involvement in risky behaviors. Initial findings from this study support previous research. Traditionally, the impact of extracurricular activities on academic and social outcomes has been explored as though this relationship is best represented by a linear trend. However, more recently researchers have begun investigating the possibility of a quadratic, or inverted U, relationship between the amount of activities and time spent on these activities and academic performance. In other words, while engaging in extracurricular activities has a positive relationship with academic (or social) performance, this is only true up to a certain amount, at which point we can observe that too much time spent on activities has a negative impact on the outcome variable (Fredricks & Eccles, 2010; Fredricks, 2012; Rose-Krasnor et al., 2006). Some researchers feel that these results are best described through the application of the Overscheduling hypothesis. The overscheduling hypothesis (OSH) proposes that while there are benefits of participation in extracurricular activities, there is a point at which too much participation can be detrimental (Fredricks & Eccles, 2010). This may be due to the extra time required to participate in these activities intruding on leisure time with family, and/or the time management required to balance multiple activities becomes too stressful (Fredricks & Eccles, 2010; Mahoney & Vest, 2012). Future research must also consider gender differences and different minority ethnic groups in extracurricular engagement. Similarly, it is also important to consider socioeconomic status, quality of after school programs and availability.

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Appendix A

Scale and item information for the Minnesota Student Survey (MSS)

Scale Name and Item Stem
<u>Community Support</u>
1-4 How much do you feel...
1. Friends care about you?
2. Teachers/other adults at school care about you?
3. Religious or spiritual leaders care about you?
4. Other adults in your community care about you?
5-6 How many of your teachers...
5. Are interested in you as a person?
6. Show respect for the students?
<u>Family Support</u>
1-2 How much do you feel...
1. Your parents care about you?
2. Other adult relatives care about you?
3. Can you talk to your father about problems you are having?
4. Can you talk to your mother about problems you are having?
<u>School Climate</u>
1-3 How many students in your school...
1. Are friendly?
2. Behave well in the hallways and lunchroom?
3. Have made fun of or threatened students of different races or backgrounds?
4-7 How much do you agree or disagree with the following statements?
4. I feel safe going to and from school
5. I feel safe at school
6. Bathrooms in this school are a safe place to be
7. Students use of alcohol or drugs is a problem at this school
8. During the last 30 days, how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?
<u>Risky Behaviors</u>
1-3 During the last 30 days...
1. On how many days did you carry a gun on school property?
2. On how many days did you carry a weapon (other than a gun) on school property?
3. How often have you, on your own or part of a group, made fun of or teased another student in a hurtful way?
4. Have you ever been treated for an alcohol or other drug problem?
5-6 During the last 12 months, how often have you...
5. Run away from home?
6. Damaged or destroyed property at school or somewhere else?
7. Hit or beat up another person?
8. Taken something from a store without paying for it?
9-11 During the last 30 days, how many times did you...
9. Smoke?
10. Smoke cigars?
11. Use chewing tobacco?
