

Proposal for Masters Thesis

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TIME USE, ENGAGEMENT, OR PERCEPTIONS OF SOCIAL ACCEPTANCE:
WHICH IS THE IMPORTANT ASPECT OF ACTIVITY INVOLVEMENT?

Introduction

After school activities have long been thought to be an important outlet for children by community members, educators and parents. This sentiment has largely been due to the idea that children, unless otherwise engaged, will become involved with deviant behaviors (Grieves, 1989). Community centers have provided after school programs with the intention of “keeping kids off the streets.” Recently, there has been a trend toward children and adolescents going home to empty houses after school because there are more one parent households and many households have both parents working outside the home (Zaff, Moore, Papillo & Williams, 2001). In addition, adolescents report having an abundance of free time (Larson & Verma, 1999). These findings, along with others, have led to an increased interest in research that examines the positive and negative outcomes associated with different patterns of leisure time use among adolescents.

There is, indeed, a multitude of evidence that suggests that adolescents who are engaged in activities after school are less likely to become involved with problem behaviors and delinquent acts such as stealing and using marijuana. (Zaff, et al., 2001; Eccles & Barber, 1999; Youniss, McLellan, Su, & Yates, 1999; Holland & Andre, 1987). In addition, different patterns of time use predict whether or not adolescents will be involved in deviant behaviors themselves or are influenced by deviant peers one year later (Jacobs, 2001). Finally, adolescents who “hang out together” but do not engage in any kind of structured or goal oriented activity are more likely to get involved with deviant behaviors when they are away from adult supervision (Mahoney, 2001; Osgood, Wilson, O’Malley, Bachman & Johnson, 1996).

The recent research linking activity involvement to various outcomes has not only made connections between activity involvement and lower rates of problem behaviors, but also has established links between involvement in activities and later positive social, emotional, and academic outcomes. Numerous studies have found that adolescents who are involved with some type of after-school activity (e.g., sports, clubs, community service, etc.) have better academic outcomes, like school better, and are more likely to go on to college (Eccles & Barber, 1999; Youniss, McLellan, Su, & Yates, 1999; Snyder & Spreitzer, 1990; Holland & Andre, 1987; Glancy, Willits, & Farrell, 1986). In addition to extracurricular involvement being related to academic outcomes, students who are involved with after-school activities report higher self-esteem, lower rates of depression, feelings of control over one's life, and higher intrinsic motivation (Kivel, 1998; Holland & Andre, 1987). Finally, in addition to involvement being linked with positive academic and emotional outcomes, researchers have found that involvement in extracurricular activities in high school is related to later positive social outcomes such as more prestigious occupations, civic engagement, voting, and volunteering in one's community (Zaff, et al., 2001; Youniss, McLellan, Su, & Yates, 1999; Glancy, Willits, & Farrell, 1986). These findings led researchers to suggest that youth are gaining something from their involvement with after school activities which makes them more likely to be successful in the long run (Zaff, et al., 2001; Larson, 2000; Youniss, McLellan, Su, & Yates, 1999).

Although extensive research has established links between involvement in extracurricular activities and positive and negative outcomes, very little research has examined the mechanisms underlying this relationship. Researchers agree that

extracurricular activities are an arena for positive youth development, but the beneficial aspects of the activities that foster development are less understood and agreed upon. In addition, although some research does suggest that there may be some gender differences in the ways in which adolescents spend their free time (Larson & Verma, 1999) and in the types and breadth of activities participated in (Eccles & Barber, 1999), very few studies have examined how relationships between after school activity involvement and positive outcomes may differ by gender. This is a relatively new area of study and therefore various explanations for the benefits of activity involvement have been proposed. The proposed study will empirically test three different potential explanatory mechanisms that exist in the literature but have previously not been tested, including time use in structured activities, engagement in one's activity, and perceptions of social acceptance. In addition, this study will test the hypothesis that gender may have an effect on the relationships between activity involvement and outcomes. This study will test these competing explanations within the same data set, in a longitudinal fashion, and will therefore make an important contribution by allowing a comparison of existing, but not yet tested, explanations for the positive contributions of extracurricular activities to adolescent development in the same sample and across time.

Brief Review of the Literature

Adolescents spend most of their time involved in three different types of pursuits (see Larson & Verma, 1999 for review). One of these is time in school and time doing school-related work such as homework. Time at school, and school work, takes up about 25-30% of an adolescents' day (Larson & Verma, 1999). This leaves a large amount of time for adolescents to spend doing activities of their choice. About 40-50% of

adolescents daily time use is spent in leisure activities. Adolescents spend this free time in three different ways. They spend a large portion of this time hanging out with friends and watching TV. The other way in which adolescents spend their free time is in extracurricular or after-school activities that are adult approved and voluntary.

Numerous studies have found that adolescents who are involved with some type of after-school activity (e.g., sports, clubs, community service, etc.) have better social and academic outcomes. This outcome research has primarily focused on the relationship between involvement in after-school activities and its relationship to deviance. Studies have found that adolescents' who are involved in extracurricular activities are involved in lower rates of deviant and problem behaviors (Zaff, et al., 2001; Eccles & Barber, 1999; Youniss, McLellan, Su, & Yates, 1999; Holland & Andre, 1987). More recently, researchers have begun to focus on the relationships between extracurricular involvement and positive academic outcomes including higher achievement and attachment to school (Eccles & Barber, 1999; Youniss, McLellan, Su, & Yates, 1999; Snyder & Spreitzer, 1990; Holland & Andre, 1987; Glancy, Willits & Farrell, 1986). These recent studies have established relationships between extracurricular involvement and higher GPA, less early school drop out especially for youth who may be "at risk", greater rates of college attendance, and greater liking of school even after controlling for SES (Eccles & Barber, 1999; Youniss, McLellan, Su, & Yates, 1999; Mahoney & Cairns, 1997; Snyder & Spreitzer, 1990; Holland & Andre, 1987; Glancy, Willits & Farrell, 1986). Although extensive research has established the relationships between extracurricular involvement and positive outcomes there is very little research that has been done to examine why extracurricular involvement may lead to positive outcomes.

A review of the current and existing literature examining leisure time use and activity involvement, particularly in relation to different types of positive and negative outcomes, suggests that there are at least three perspectives that are beginning to emerge to explain the relationships between adolescent activity involvement and positive and negative outcomes. This section of the paper will review these emerging explanations and provide the evidence that exists to bolster these perspectives. The first section will deal with the idea that time use may be an important factor to take into consideration when examining activity leisure choices and related outcomes. This section will examine existing perspectives about why time spent in unstructured activities, such as hanging out, may not be related to positive outcomes, and why time spent in structured activities may be an important variable to take into consideration when relating structured activity involvement with positive outcomes. The second section will review the perspective that engagement in one's activity may be related to positive developmental outcomes. This perspective argues that structured activities provide a unique opportunity in adolescents' lives for affective engagement in specific activities, therefore creating arenas for positive skill development. The third perspective concerns the role of social acceptance within activity settings. This section will discuss the idea that involvement in extracurricular activities may contribute to feelings of social acceptance and popularity with one's peers, and that this may connect the adolescent to the school environment. These different perspectives, including time use in structured and unstructured activities, engagement in one's activity, and activities as opportunities for higher perceptions of social acceptance, draw from different disciplines including literature from developmental and educational psychology, leisure studies, and sociology.

Time use in unstructured and structured activities

One aspect of after school activities that has been shown to be important for either positive or negative outcomes is the structured nature of the activity. Unstructured after school activities, also known as routine activities in some literatures, are ordinary, everyday activities in which adolescents are socializing together, in the absence of adult supervision, doing “nothing in particular” (Osgood, 1998). Individuals who spend more time involved in these routine activities tend to be involved with higher rates of delinquent and problem behaviors such as substance use (Osgood, Wilson, Bachman, O’Malley & Johnson, 1996). The routine activity perspective suggests that individuals who participate in routine activities are not especially inclined towards deviance, but rather that routine activities provide an *opportunity* for deviance because there are no adults present, the behavior is possible, and the deviant behavior is somewhat rewarding (Osgood et al., 1996). Although the routine activity literature has been used only as an explanation for deviance, several points can be taken from it. First, time use is the mechanism or explanatory variable to take into consideration. Adolescents do spend unstructured time with peers. Hanging out with peers is considered to be normative and beneficial. However, too much time spent in routine activities tends to be associated with deviant outcomes because the more time an individual spends doing “nothing in particular” provides more opportunities for deviance (Osgood et al., 1996).

Structured activities, on the other hand, can be considered to serve as *opportunities* for positive development (the next section describes one explanation for why this might be). Structured activities are activities that fit several criteria. According to Larson (2000), structured activities must in some way be organized by adults. This

could mean an adult sanctioned activity, a lightly supervised activity, or an activity that an adult is directly a part of or is highly invested in. Second, the activity must be voluntary. According to Larson (2000) this means that the activity is not a requirement of an institution such as school. If parents or others were to push or require an activity, this activity would not be construed as voluntary. Research suggests that adolescents do consider their structured leisure activities to be voluntary; the least commonly cited reason for being involved with structured leisure activities is being involved because others require it (Wankel & Berger, 1990). The final criteria an activity must fulfill in order for it to be considered a structured activity is that it must be somewhat organized in nature; structured activities have constraints, rules, and goals associated with them. Larson (2000) explains that these organized, voluntary, adult sanctioned activities could include anything from organized, school based after-school activities, to community organized activities, to more personal activities and hobbies such as constructing a web page, creative writing, or volunteering. According to Larson (2000), the particular types of skills needed to participate in any one type of structured leisure activity (e.g., sports, clubs, etc.) are not important for different aspects of personal development. He would argue that it is the organized, structured, adult sanctioned, and voluntary nature of the activity that provide the *opportunity* for an adolescents' positive experience within the activity.

Although we know that time spent in unstructured activities is an important variable to take into consideration (e.g., the more time one spends in unstructured activities leads to more opportunities for deviance) research has not typically examined how time use in activities that are more structured in nature may provide opportunities for

positive outcomes. Up to this point activity involvement has been conceived of in terms of whether an individual does or does not participate, or activities have been counted for purposes of variability. However, examining the amount of time an individual spends, on average, with structured activities may be an important variable to take into consideration. Time spent in structured activities in relation to positive outcomes could provide us with valuable clues as to what the important aspects of activity involvement are for personal development. In the study proposed here, time spent in structured after school activities will be examined as a factor that may contribute to positive outcomes. I will test the hypothesis that time spent in extracurricular activities is positively related to outcomes such as GPA, attachment to school, and negatively related to higher rates of problem behavior. I will also test the hypothesis that there may be an optimal amount of time spent in structured activities (not too little or too much) in relation to positive outcomes. An optimal level of time spent in structured activities would still allow adolescents time left over to spend doing homework and being with friends and family members in less structured contexts. In addition, this study will explore the possibility that time spent in different kinds of after school activities (organized sports, school clubs and organizations, volunteering, and music/arts) may be differently related to GPA, attachment to school, and problem behaviors. Finally, gender differences in relationships between time use and outcomes will be examined.

Engagement

One proposed explanation for why after-school activities may contribute to positive outcomes is that the nature of these activities provide adolescents with a unique opportunity for engagement (Larson, 2000). Personal engagement in one's activity has

both positive affective and cognitive components (Csikszentmihalyi & Larson, 1984). Engagement in one's activity includes the simultaneous experiences of being totally absorbed in one's activity, or focused on it, and enjoying the activity (Jackson & Csikszentmihalyi, 1999). This affective engagement in an activity is very similar to the concept of "flow" or engagement in one's activity (Csikszentmihalyi, 1997). The experience of personal engagement, involvement, and commitment to an activity is thought to be the mechanism for personal growth within activities. Participation in activities does not necessarily lead to personal engagement, but certain activities are more likely to provide opportunities for engagement than others. This opportunity for engagement may not be present in all of the daily activities that adolescents take part in. Larson (2000) suggests that after-school activities may provide this opportunity.

Adolescents' mainly use their time in three different ways. They spend time at school and doing school work, they spend time in unstructured leisure doing things such as watching T.V. and hanging out with friends, and they also choose to spend their daily time in activity pursuits such as playing a sport or a musical instrument (Larson & Verma, 1999). Csikszentmihalyi & Larson (1984) have found that while adolescents are involved in after-school activities, whether the activity be arts, sports, or building a web page, they experience a unique set of affective and cognitive states, which are different from the affective experiences of unstructured leisure and even school work. While adolescents are involved in these after-school activities they report high intrinsic motivation or value which can be defined as the enjoyment and interest the individual has while involved with the activity (Jacobs & Eccles, 2000). Adolescents also experience

high concentration, very high challenge, are voluntarily exerting attention towards the task of the activity, and positive affect (Kliebler, Larson & Csikszentmihalyi, 1986).

While adolescents are involved in their daily activities other than structured after school activities, they do not report simultaneously experiencing these cognitive and affective states. During school work, and time spent at school, adolescents report high levels of concentration and high challenge, but low intrinsic motivation and high boredom (Csikszentmihalyi & Larson, 1984). In addition, adolescents report that school associated activities are coercive while leisure time activities are voluntary (Wankel & Berger, 1990). During common passive leisure pursuits such as watching T.V. and hanging out with friends, adolescents report high intrinsic motivation, but low challenge. Therefore, Larson (2000) concludes that extracurricular activities are the only arena in which adolescents experience intrinsic motivation, challenge, and positive affect, which, in turn, lead to personal growth.

In summary, Larson and his colleagues hypothesize that the opportunity for the experience of personal engagement within after-school activities may be the developmentally beneficial aspect of activity involvement. Learning to be intrinsically motivated, invested in an activity, and exerting devotion and thought towards the activity and its goal may be important skills that contribute to successes in other aspects of adolescents' lives such as the academic realm. However, the idea that engagement is the key developmental opportunity being provided by after-school activities lacks empirical support. We do know that adolescents' experience engagement or "flow" while involved with these activities but we assume that adolescents will experience varying levels of engagement within their activities. In order to better determine if level of engagement in

one's activity is of key importance for positive outcomes, this study will test the amount of predictive value that level of engagement in one's activity has on positive outcomes. Specifically, the proposed study will test the hypothesis that the amount of engagement in one's favorite activity type will be positively related to engagement in school and GPA and negatively related to rates of problem behaviors. Gender differences will be examined for the relationships between engagement and outcomes.

The role of social acceptance as a mediator between involvement and outcomes

Another proposed explanation for why after school activities may lead to positive social, emotional, and educational outcomes is the idea that involvement in school based extracurricular activities leads to an increase in peer status and therefore attachment to school, better academic outcomes, and lower rates of problem behaviors. This idea has largely been presented by Mahoney & Cairns (1997), who hypothesize that extracurricular involvement may increase one's attachment to the values and norms of the school system due to involvement with peers. Mahoney and Cairns (1997) found that students who were at risk for early school drop out, and got involved in school based extracurricular activities, had a significant reduction in rates of early school drop out compared to students who were at risk, but did not choose to involve themselves in any school based extracurricular activity. In addition, there were differences in the predictive value of different types of activities. Involvement in athletic activities had a slightly greater predictive value for lower rates of early school drop out for at risk students. The finding that athletics may serve as a protective factor for early school drop out also has been reported by Melnick, Sabo & Vanfossen (1993). They found that athletic involvement was related to lower drop out rates for minority youth. Involvement in

school based extracurricular activities, and especially participation in athletics, seems to serve as a protective function for students who are at risk for dropping out of school early.

One of the proposed explanations for why school-based extracurricular involvement may be related to lower rates of school drop out for at-risk students is that joining an after school activity serves the purpose of allowing students who may have otherwise been marginalized to make friends within the school setting and experience an increase in perceived social status and acceptance within the school setting (Mahoney & Cairns 1997). This may be an especially important function of involvement in after school activities for at-risk students because these students are rated as less socially and academically competent than students who are not at-risk. Students who achieve in classroom settings tend to have higher levels of school engagement and attachment to school than students who do not experience high levels of achievement in the classroom setting (Mouton, Hawkins, McPherson, Copley, 1996). Students who are at risk for drop out may have low attachment to school, few friends with scholastic orientations, low engagement in the school's value systems, and may fail to find the school setting a friendly, meaningful, or attractive place (Mahoney & Cairns, 1997). Becoming involved in school-based extracurricular activities, according to Mahoney & Cairns (1997), may provide at-risk students with a connection to the school setting through peers within their activities.

One of the ways in which this might occur is through making friends within this setting who have conventional academic orientations and thus influence the value an at-risk individual places on school. Other research does suggest that adolescents do make

friends within activity settings (Karweit, 1983). Furthermore, activity settings may provide opportunities for membership within peers groups and peer crowds within the high school setting (Eccles & Barber, 1999). Involvement in school based activities may raise one's status within the school or increase one's social affiliations thus making the school setting seem like a friendlier place. Other research does seem to suggest that involvement in extracurricular activities, and especially involvement in activities that have a high profile within the school system, such as large clubs and sports, is indeed related to peer popularity and status (Eder & Kinney, 1995; Melnick, Sabo, & Vanfossen, 1993). Students who are involved in such activities may feel like they have greater social acceptance and are "part of the group" when they are involved in clubs or sports that, by definition, require membership. For example, participation on a basketball team at school may make the adolescent feel like she or he is part of a social group in a way that playing a game of pick-up basketball after school may not. There may be higher perceptions of status associated with being a member of a school team.

In conclusion, one reason after-school activities may be related to positive academic outcomes, especially for students who are academically at-risk, may be because such activities provide an opportunity for social integration and acceptance within the school setting. This study will empirically test the hypothesis that involvement in activities within the school setting increases one's self-perceptions of social acceptance. This study will specifically test the hypothesis that perceptions of social acceptance mediate the relationship between involvement in school based activities and higher GPA, higher attachment to school and lower rates of problem behaviors. In addition, gender differences in the mediational relationships will be examined.

Proposed study

Although findings by many researchers show that involvement in after-school activities is generally related to positive outcomes, and specifically related to increased academic achievement, attachment to school, and a decrease in problem behaviors, the reasons why involvement may be developmentally beneficial are unclear. In addition, there are very few studies that have focused on the possibility that after school activity involvement may be differentially related to outcomes depending on gender. Findings, mostly from the deviance literature, suggest that time spent in after school activities may play a role in behavioral choices that young people make and that more time in structured activities may lead to more positive outcomes (Osgood et al., 1996). Larson and his colleagues argue that the experience of engagement in one's activity leads to personal growth, (see Larson, 2000 for review), resulting in positive outcomes. Finally, Mahoney and Cairns (1997) and others present the idea that membership in after-school activities may lead to increased self-perceptions of social acceptance within the school setting and thus make school and the school's value system (e.g., achievement) more salient. Although all of these potential explanations exist in the literature, none have been empirically tested. This study will begin to tease apart the differing perspectives by testing three potential explanations for the mechanisms that may underlie the relationship between adolescent activity involvement and positive outcomes including (1) the importance of time use; (2) the value of engagement in activities; and (3) the role of perceived social acceptance. Gender differences in all of these perspectives will be tested.

The age group that this study will examine will be high school students, largely because this is the population that has been tested in the afore-mentioned studies concerning involvement in after school activities and positive outcomes. In addition, the hypothesized relationships between activity involvement and achievement or deviance are based on the idea that adolescents choose how to spend their time and high school students are at an age when activity involvement becomes voluntary. Thus, the proposed study will examine activity involvement and outcomes in students longitudinally, when the participants are in 10th, 11th, and 12th grades. The three outcomes that this study will test will be positive academic achievement, attachment to school, and lower rates of deviant or problem behaviors.

The proposed study will add several things to our existing knowledge about adolescent development by focusing on both positive and negative developmental aspects of activity involvement for high school aged students taking into account gender differences. The study will be the first to empirically test existing competing explanations that have been posited in the literature about the mechanisms underlying the links between extracurricular involvement and positive youth development and take gender into account. This study will be especially valuable because we will be able to test these three hypotheses longitudinally in the same population of adolescents and, therefore, will be able to compare and contrast the results that are obtained for the three competing hypotheses:

- 1) Total time spent in activities in 10th grade will be positively related to GPA, attachment to school, and negatively related to problem behaviors in 12th grade.

a) The total amount of time spent in after school activities will be positively related to GPA and attachment to school and negatively related to problem behaviors in both 10th and 12th grades.

b) Quadratic effects of time spent in after school activities will be found for the three outcomes including GPA, attachment to school, and problem behaviors.

c) Time spent on every activity will not be related equally to positive and negative outcomes. Time spent in some types of activities (e.g., sports, clubs, volunteering, and arts/music) may be more or less related to GPA, attachment to school, and problem behaviors.

d) Gender differences will be found in the relationship between time use and outcomes.

2) The amount of engagement one experiences while involved in one's favorite activity type in 10th grade will be positively related to GPA, attachment to school, and negatively related to problem behaviors in both 10th and 12th grades. Gender differences will be found in the relationship between engagement and outcomes.

3) Perceptions of social acceptance in 11th grade will mediate the relationship between school based activity involvement in 11th grade and GPA, attachment to school, and problem behaviors in 12th grade.

a) Mediation effects will be found for involvement in any school based activity.

b) Mediation effects will be found for involvement in types of school based activities (e.g., sports and clubs).

c) Gender differences will be found for mediation effects.

Method

Participants

The proposed study will use data from the Childhood and Beyond (CAB) longitudinal project¹ which employs a cohort-sequential design. The study investigates the development of children's self-perceptions, academic achievement, and activity choices. Children, parents, and teachers were recruited through the children's schools; all children in each classroom were asked to participate. 75% of children both agreed to participate and obtained parental permission. Data were collected between 1989-1999 from children attending 10 elementary schools in four middle class school districts in the suburbs of a large Midwestern city. The first wave of data collection took place in 1989 and data were collected from kindergarteners, 1st graders, and 3rd graders. Each cohort was followed in a longitudinal fashion. The average family income in 1990 was \$50,000 and over 95% of the children are European-American. The schools were all public schools with varied curricula. Attrition in the sample was due mostly to children moving away from the school districts sampled. Every effort was made to re-locate children each year, and the longitudinal sample included children who continued to live in the same general area, even if they no longer attended participating schools. During the first wave of data collection 599 Kindergarteners, 204 1st graders, and 184 3rd graders participated in the study. Over time there was some attrition and some students were added to the study. Analyses reported elsewhere (see Wigfield, Eccles, Yoon, Harold, Aberton, &

¹ This research was supported by Grant HD17553 from the National Institute for Child Health and Human Development to Jacquelynne S. Eccles, Allan Wigfield, Phyllis Blumenfeld, and Rena Harold.

Blumenfeld, 1997) indicate that, for each of the variables of interest, the mean scores for the full cross-sectional sample and the longitudinal sample are not significantly different.

Procedures

Activity data used in the proposed study were collected from the third cohort during adolescence, when the approximately 100 participants (55% female, 45% male) were in grade 10 and 11 (corresponding to age 16 and 17). Data about perceptions of peer acceptance and social ability were collected when the students were in 11th grade and data related to involvement in problem behaviors, GPA, and attachment to school were collected one year later when the participants were in the 12th grade. Adolescents' responses were given to questionnaires answered at school, during class time. Most items on the questionnaire were measured using 7-point Likert-type response scales.

Measures

Time

Time use was assessed by asking students to report on a 7-point Likert-type response scale how often they did certain activities per week. For example, students were asked to report about how many hours per week they spent in different kinds of activities, doing homework, spending time with friends and family, and working at home or outside of the home. The scale ranged from 1 to 8 with 1 representing zero hours per week and 8 representing 21 or more hours per week. In order to assess time spent on after school activities in general, self-reported time spent in organized sports (in the past school year), providing volunteer or community service, going to religious services and activities, and time spent participating in school clubs and organizations will be summed. In addition, each of these time use variables will be used individually in the analyses.

Engagement

Engagement in one's activity was measured by a four item scale that assessed the respondent's interest and engagement or "flow" while involved in different types of activities (e.g., sports, arts). Participants responded to the question, "What is your favorite activity?" Their response to this question will be matched with the flow scale that coincided with their favorite activity type. For example, if someone's favorite activity was tennis, the sports flow scale will be used. If their favorite activity was piano lessons, the playing music flow scale will be used. Participants responded on a 7-point Likert-type response scale. This scale consisted of items such as, "How often do you feel excited and challenged while you are doing your activity; how often do you feel completely involved in the task while you are doing your activity." The scale has an alpha of .86 (see Appendix B, Table 1 for full scale).

Peer acceptance measures

Types of activities were assessed with a question that provided a prompt (e.g., Do you (did you) compete in any of the following school teams (varsity, junior varsity, or other organized school program) outside of physical education during the 1994-1995 school year? Check all that apply). Following the prompt, students were provided with a list of activities and were asked to check off any that applied. Students had the opportunity to report on organized school sports teams and school clubs (see Appendix A for a list of the activities provided to respondents). For analysis purposes, the two different kinds of activity categories that will be used are organized school sports and school clubs/organizations. Dummy variables will be created for each participant

that sums the number of activities in each separate category and these will be used in analyses where types of activities are being examined.

Perceived peer acceptance and social ability were assessed by two scales. The first was the social self-concept scale, which consists of 4 items and has an alpha of .79 (see Appendix B, Table 1 for full scale). Participants responded on a 7-point Likert-type scale. Examples of items on this scale are: “How popular are you with boys/girls; how good are you at making new friends.” The second scale is the social worries scale, which consists of 3 items and has an alpha of .63 (see Appendix B, Table 1 for full scale). Participants again responded on a 7-point Likert-type scale. Examples of items from this scale are: “How worried are you that boys/girls don’t like you”.

Outcomes

Attachment to school will be represented with two scales. The first is the school affect scale which has 6 items and an alpha of .76 (see Appendix B, Table 1 for full scale). Examples of items from this scale are: “When you are at school how often do you feel...like I really matter at this school; that I really belong at this school.” Students responded on a 1-7 Likert-type scale. The other scale that measures attachment to school is the left out/lonely scale (see table B Table 1 for full scale). This scale has 5 items and an alpha of .82. Examples of items from this scale are: “When you are at school how often do you feel...left out of things; lonely.” Students also responded on a 7-point Likert-type scale.

GPA was assessed by school record data. Schools provided students’ GPA.

Problem behaviors were assessed with a 12-item problem behavior scale. Participants responded on an 8-point Likert-type scale. This scale included items such as

“Think about the last 6 months, about how often in those 6 months did you do the things listed below...skip a day of school; damage public or private property; disobey your parents on an important issue?” This scale has an alpha of .85 (see Appendix C, Table 1 for full scale).

Analysis Plan

The proposed analyses will test three different competing explanations that exist in the literature related to the beneficial aspects of extracurricular activity involvement for high school students. First, *time use* will be examined as a predictor of positive and negative outcomes, including both linear and quadratic effects of time spent in activities. The second set of analyses will test the hypothesis that *engagement* in one’s activity leads to positive outcomes. The final set of analyses will test the hypothesis that perceptions of *social acceptance* mediate the relationship between involvement in school based activities and positive outcomes, and that perceptions of social acceptance mediate the relationship between certain types of school activities (e.g., sports and clubs) and positive outcomes. Finally, *gender differences* will be examined in each of the 3 sets of analyses.

Time

In order to test the hypothesis that time spent in activities will be related to positive outcomes, two sets of regressions will be conducted. Specifically, the first set will include 8 regressions that test the hypothesis that that sum of time spent in activities (see methods for exact activities) in 10th grade predict the four outcomes (GPA, school affect, left out/lonely, and problem behaviors) at both 10th and 12th grades. For example, the sum of time spent in activities in 10th grade will be entered as the predictor variable and each of the 4 outcomes will be entered as the dependent variable at two different time

points; 10 and 12th grade. Once a relationship has been established between time spent in activities and outcomes, the second set of regressions will test the hypothesis that each of the 4 types of time use: 1) time spent in organized sports 2) time spent in school clubs 3) time spent in volunteering activities and 4) time spent in religious activities, predict each of the 4 outcomes, perhaps differentially, in 12th grade. For example, time spent in organized sports will be entered as the predictor variable in 4 different regressions with the outcomes being the 4 mentioned above in 12th grade. Finally, quadratic effects will be tested to explore the hypothesis that there may be an optimal amount of time spent in activities. The summed time use variable in 10th grade will be tested for quadratic effects in each of the four regression equations with the same outcome variables in 12th grade. Gender differences will be examined in all regressions.

Engagement

In order to test the hypothesis that engagement in one's activity leads to positive outcomes, two sets of regressions analyses will be conducted. In the first four regression equations Flow in 10th grade will be entered as the predictor variable and GPA, school affect, left out/lonely, and problem behaviors at 10th grade will be entered as the four different dependent variables. In the next set of four regression equations, Flow in 10th grade will be entered as the predictor variable and GPA, school affect, left out/lonely, and problem behaviors in 12th grade will be entered as the four dependent variables. Gender differences will be examined in all regressions.

Social Acceptance

In order to test the hypothesis that the latent construct of social acceptance (as measured by social self-concept and social worries; see methods for details) in 11th grade

mediate the relationship between involvement in school based activities in 11th grade and outcomes (including GPA, school affect & left out/lonely, problem behaviors) in 12th grade, a series of structural equation models will be employed (see Appendix D, Figure 1 for generic mediation model). The first three models will test the mediational effects of the latent construct social acceptance on the relationship between participation in school based activities in general (see Types of activities measured in methods) and the three outcome variables including GPA, the latent variable of attachment to school as measured by the school affect scale and left out/lonely scale, and the problem behaviors scale. In order to assess whether different types of activities are more or less related to outcomes and mediated by social acceptance, the next six models will test the two separate school activity categories (sports & clubs; see methods for details). The first three models will test the mediational effects of the latent construct social acceptance on the relationship between involvement in organized sports and the three outcomes. The final three models will test the mediational effects of the latent construct social acceptance on the relationship between involvement in school clubs/organizations and the three outcomes. These models will be run separately for boys and girls in order to see if there any differential gender effects.

APPENDIX A
ACTIVITY LIST

Do you (did you) compete in any of the following school teams (varsity, junior varsity, or other organized school program) outside of physical education during the 1994-1995 school year? (check all that apply)

Baseball
Volleyball
Track/Cross Country
Gymnastics
Tennis
Swimming/Diving
Softball
Basketball
Soccer
Football
Cheerleading
Ice Skating
Wrestling
Field Hockey
Other

Which of the following activities or clubs at school did you do in the 1994-1995 school year?

Student government
Science fair
Band or Orchestra
Math club
Debate club/forensics
Dance
Art
Gaming clubs (D&D)

Peer counseling
Sports clubs
Service clubs
Drama
ROTC
S.A.D.D.
Tutoring in math, science, or
Computers
Foreign Language Club
Tutoring in other academic subjects
Chess Club
Pep club/Boosters
Computer club
Career related club
Cheerleading
Environmental group
Literary magazine
Other

APPENDIX B
ATTITUDINAL SCALES

Table 1
Adolescent Scales

Scale/Item	Response scale anchors	α
Adolescent Engagement in Activity		
How often do you feel excited and challenged while doing this activity?	Never (1), Almost always (7)	.86
How often do you feel completely involved while doing this activity?		
How often do you feel good about yourself while doing this activity?		
Adolescent Social Self-concept of Ability		
How popular are you with boys?	Not at all (1), Very (7)	.79
How popular are you with girls?		
How good are you at making new friends?		
From best to worst in your class how good are you at making new friends?	One of the worst (1), The best (7)	
Adolescent Social Worries		
How worried are you that boys don't like you?	A little (1), A lot (7)	.63
How worried are you that girls don't like you?		
How worried are you about not being good looking?		
Adolescent School Affect		
When you are in school how often do you feel...	Never (1), All the time (7)	.76
-that I really belong in this school?		
-like you matter at this school?		
-challenged by your classes?		
-like you are learning a lot in your classes?		
-good about yourself?		
Adolescent Left out/Lonely		
When you are in school how often do you feel...	Never (1), All the time (7)	.83
-left out of things?		

-lonely?

-How often do you feel left out
when you are with your friends?

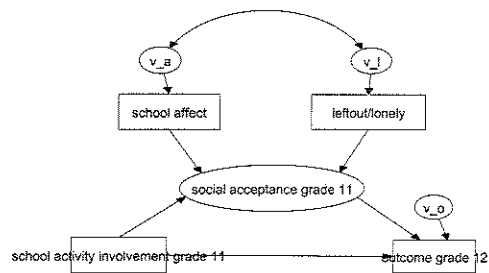
APPENDIX C
ADOLESCENT BEHAVIORAL SCALE

Table 2
Adolescent Problem Behavior Scale

Scale/Item	Response scale anchors	α
Adolescent Problem Behaviors In the last six months how often did you do these things below? -skip a day of school? -do something you knew was dangerous just for the thrill of it? -have contact with the police for something that you did or they thought you did? -damage public or private property? -get drunk? -stay out all night without your parents permission? -get suspended from school? -disobey your parents on an important issue? -do some pretty risky things because it was a real kick? -lie to your parents about something important? -get into a fist fight with another kid? -dink alcohol? -get sent to the principal's office or assistant principal's office?	Never (1), 31 or more (8)	.85

APPENDIX D
STRUCTURAL EQUATION MODELS

Figure 1
Generic Mediation Model
Structural Equation Model



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