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**Engagement in After-School Program Activities:
Quality of Experience from the Perspective of Participants**

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Abstract

Middle school students' experiences at after-school programs were compared as they participated in different types of activities and with different social partners. The students ($N = 165$) attended eight programs in three Midwestern states. A total of 1,596 experiences were randomly sampled using the Experience Sampling Method (ESM) during one week in the fall of 2001 and one week in the spring of 2002. Student engagement was conceptualized as the simultaneous experience of concentration, interest, and enjoyment. Students reported high levels of engagement while participating in sports activities and arts enrichment activities at the after-school programs, and low levels of engagement while completing homework at programs. They reported being more engaged in activities involving both adults and peers than activities with peers only. Concentrated effort, intrinsic motivation, and positive and negative mood states were also compared by program activities and social partners. Findings about participants' subjective experiences and engagement in specific program activities have implications for understanding after-school programs as a context for youth development.

A substantial research literature has found extracurricular activities to be an important developmental context providing opportunities for adolescents to experience heightened levels of engagement, challenge, enjoyment, intrinsic motivation, and initiative (Csikszentmihalyi & Larson, 1984; Larson, 2000; Mahoney, Larson, & Eccles, 2005; Vandell, Pierce, & Dadisman, 2005). As a context for positive experiences, such activities have been contrasted with school and classroom activities that are characterized by high challenge and concentration but also low enjoyment and interest, and unstructured leisure activities that tend to be high in enjoyment but low in challenge and concentration (Larson, 2000; Rathunde & Csikszentmihalyi, 2005). Experiences that combine both concentration in challenging activities and enjoyment in interesting ones characterize the psychological state which Csikszentmihalyi (1990) has called “flow.” Flow is a state of complete absorption in an activity that is intrinsically interesting with no psychic energy left for distractions. Empirically, it has been related to learning, talent-development, and creativity (Csikszentmihalyi, 1996; Csikszentmihalyi, Rathunde, & Whalen, 1993). Based on flow theory, the current study focused on student's *engagement* with school-based extracurricular activities, which we conceptualized as the simultaneous experience of concentration, enjoyment, and interest. The conceptualization combines the focused, disciplined aspects of work with enjoyable aspects of leisure, a combination considered to be a unique benefit of voluntary, structured activities for positive youth development (Larson, 2000).

While middle school students participate in extracurricular activities in a variety of settings, school-based after-school programs represent a relatively new developmental context for doing so. Their rapid expansion has been fueled by substantial federal, state, and local monies to programs such as the *21st Century Community Learning Centers* (U.S. Department of Education, Office of the Under Secretary, 2003), and by the belief that middle school students could benefit from participation in such programs. School-based after-school programs differ

from content-specific extracurricular activities in that they typically operate on a daily basis throughout the school year and offer a broad array of activities including sports, arts and crafts, games, music, drama, theme-based activities, and homework time.

In a series of reports, we have sought to understand adolescents' experiences in school-based after-school programs. In an earlier report involving this same sample (Vandell, Shernoff, et al., 2005), students' experiences at school-based programs were contrasted with other types of after-school settings. While attending the after-school programs, the adolescents reported spending more time in sports activities and arts enrichment and less time watching TV and eating/snacking than was the case in other settings such as their homes. The adolescents also reported higher intrinsic motivation, concentrated effort (perceptions of high concentration, challenge, and use of skills), and positive mood states at the after-school programs than elsewhere after school. These findings are consistent with the proposition that school-based after-school programs may promote positive youth development (Eccles & Gootman, 2002), but it remains important to identify the particular activities and social partners within the program setting that are linked to engagement, intrinsic motivation, and mood states.

The present study therefore closely tracked the experiences of after-school program participants as they engaged in activities and interacted with different social partners. We utilized The Experience Sampling Method (or ESM; see Hektner, Schmidt, & Csikszentmihalyi, 2007) to link activities and social partners with momentary fluctuations in participants' cognitive and emotional states. We argue that the unique experiential profiles of specific activities and social partners are a valuable source of information about after-school programs from the seldom considered perspective of participants (Warton, 2001). We now present research related to engagement and subjective experience in some of these common after-school program activities and social arrangements.

Research on the Experience of Common After-School Program Activities

Sports. Sports are among the most popular and pervasive leisure activities in American culture, playing an important role in the lives of many adolescents. Athletics are said to build character, instill a respect for the rules, encourage teamwork and sportsmanship, promote healthy competition and perseverance, and provide a sense of achievement (Smoll & Smith, 2002). Organized sports also provide an opportunity for initiative, emotional regulation, goal setting, persistence, problem solving, and time management (Larson, Hansen, & Moneta, 2006), which may help to explain associations found between sports participation and academic achievement (Mahoney & Cairns, 1997; Marsh & Kleitman, 2002). In terms of subjective experience, participation in sports is typically one of the most enjoyable experiences reported by adolescents (Csikszentmihalyi & Larson, 1984; Kirshnit, Ham, & Richards, 1989), associated with positive feelings about one's body, improved self esteem, confidence, independence, and energy (Broh, 2002). Positive interactions relating to building friendship with teammates and gaining social support have also been identified as enjoyable aspects of sports involvement (Wankel & Kreisel, 1985).

Some findings on sports participation and its relationship to development and emotional adjustment have been negative or mixed, however. Sports have been linked to developmental hazards such as delayed identity development (Larson & Kleiber, 1993), increased levels of school deviance (Lamborn, Brown, Mounts, & Steinberg, 1992), higher rates of alcohol consumption (Eccles & Barber, 1999), competition anxiety and self-centeredness (Smoll & Smith, 2002), and bodily injury (Dane, Can, Gursoy, & Ezirmic, 2004). Larson et al. (2006) found sports participation to be associated with experiences of stress and social exclusion.

Notwithstanding both positive and negative associations of sports participation, there is some worry over declining athletic involvement, particularly in the middle school years. Eighty percent of children are reported to drop out of sports between the ages of 12 and 17 (Kirshnit et al., 1989).

Among the most common reasons given for declining involvement is increasing demands on leisure time from non-athletic activities (Gould, Feltz, Horn, & Weiss, 1982). Methodologically, the quality of experience during sports has proven to be especially difficult to measure in ESM studies due to the reluctance to respond to random beepers during athletics. We capitalized on the unusually high response rate in the present study to compare the quality of experience in athletics to that reported in other activities.

Arts. There is a dearth of studies on student experiences of the arts and music. In after-school programs, arts “enrichment” activities include classes in dance, drama, pottery, painting, sculpture, or organized music. Practicing the arts can improve academic performance by increasing engagement, motivation, and self-esteem (Winner & Hetland, 2000). For example, music has been found to be an important part of how young people think about issues and express their emotions (North, Hargreaves, & O'Neill, 2000). Capacities thought to be engendered by the arts include creativity, imagination, fluency, originality, and critical and divergent thinking (Burton, Horowitz, & Abeles, 2000). While few studies have focused on the experience of arts participation in particular, adolescents generally report positive motivation and emotions while practicing their skills in artistic pursuits (e.g., Csikszentmihalyi et al., 1993). Larson et al. (2006) found that 11th graders participating in the arts experienced greater initiative but fewer positive relationship opportunities than in most other organized youth activities such as sports, academic clubs, community activities, and faith-based activities.

Socializing. After-school programs also provide important opportunities for socializing. Socializing can serve as an arena for exploring roles, learning cultural norms, and developing cognitive, social, and emotional self regulation (Larson & Verma, 1999). Socializing is one of the most common leisure activities among adolescents, who generally feel the most positively when in the presence of chosen friends (Csikszentmihalyi & Larson, 1984). In contrast, adolescents’ most negative mood states are frequently reported when alone.

One of the reasons children and adolescents participate in voluntary after-school programs is to fulfill their social goals (Fredricks, Alfred-Liro, Hruda, Eccles, Patrick, & Ruan, 2002). By creating mutually caring, trustful, and respectful relationships between youth and adults, high quality after-school programs can provide involvement in social networks embodying the values of the school (Mahoney, 2000; Mahoney & Cairns, 1997). In contrast, socializing unsupervised during unstructured time is related to feeling out of control (Csikszentmihalyi & Kleiber, 1991; Csikszentmihalyi & Larson, 1984), and delinquency and drug use (McLaughlin, Irby & Langman, 1994); and it is negatively related to students' grades (Leone & Richards, 1989).

Homework. Homework can play a critical role in the development of children's achievement motivation (Bempechat, 2004). Many studies have found a positive and significant, albeit weak relationship between the amount of time spent on homework and various achievement outcomes, particularly for grades 6-12 (see recent meta-analysis by Cooper, Robinson, & Patall, 2006). While the amount of time spent on homework is clearly important, the quality of experience during homework completion can also affect learning. A student completing homework alone, out of resentment, or to avoid punishment is likely to have a different learning experience than a contented youth doing so in an organized program while in the company of supportive peers and adults. Indeed, positive student attitudes about homework have been positively related to homework completion rates and class grades (Cooper, Lindsay, Nye, & Greathouse, 1998). Ultimately, students' attitudes about homework and school work are a product, at least in part, of their experience with it.

Findings about student's experience of homework are predominantly negative. Students frequently report completing homework only to avoid getting in trouble or to please their parents, rarely seeing the relevance or utility value adults attribute to it (Coutts, 2004; Warton, 2001). Homework in middle school principally involves repetition and practice of classwork, which students perceive as monotonous (Warton, 2001). Homework can satiate students on academic tasks, leading to fatigue and denying them time in sports, socializing, and community activities (Coutts, 2004; Warton,

2001). It is therefore not surprising that U.S. students have reported experiencing low affect and intrinsic motivation with high rates of boredom while completing homework (Larson & Verma, 1999; Leone & Richards, 1989).

The experience of homework is particularly negative when completing it alone, and appears to be enhanced in the presence of peers (Leone & Richards, 1989). Therefore, it is worthwhile to ask whether students might have more positive experiences with homework in organized after-school programs while in the presence of both supportive adults and peers. Indeed, students in after-school programs very rarely or never report being alone (Vandell, Shernoff, et al., 2005). Though periods for homework completion, or “homework help,” are now routinely offered in most after-school programs (Miller, 2003), few studies have examined the experience of homework in after-school programs specifically. Recently, a national evaluation reported that after-school programs had little or no impact on academic performance and homework completion (U.S. Department of Education, Office of the Under Secretary, 2003). Although this report has been sharply critiqued as methodologically flawed (e.g., Mahoney, Larson, Eccles & Lord, 2005), the spotlight on homework following the national evaluation engenders interest in evaluating students’ quality of experience during homework completion compared to other program activities.

Academic enrichment activities. Academic enrichment refers to supervised activities that are academic in nature without the assignment of homework. This may include hands-on science projects and other group activities, discovery units (e.g., “Destination Imagination”), and educational computer use. Unlike sports and the arts, which can occur spontaneously outside of after-school programs, children engage in academic enrichment activities almost exclusively when in structured programs (Vandell, Shernoff, et al., 2005). However, there is an even greater paucity of research on academic enrichment activities than the arts, perhaps because enrichment activities are offered infrequently, especially in impoverished environments (Mahoney, Lord, & Carryl, 2005). Nevertheless, a variety of positive outcomes have been associated with school-based academic extracurricular involvements. For

example, adolescents involved in academic clubs in high school have had higher academic performance, a greater likelihood in enrolling in college, and more years of college completion than their uninvolved peers (Eccles & Barber, 1999; Marsh & Kleitman, 2002). Larson et al. (2006) found that 11th graders reported lower rates of positive developmental experiences in academic clubs compared to other types of organized youth activities, but higher rates of such experiences compared to their academic classes.

Sit-down games. Games of all types, including sit-down games, are highly engaging for children because they possess many properties inherent to flow experiences (Csikszentmihalyi, 1990). For example, goals are clear and feedback as to whether players are achieving those goals is immediate, abundant, and unambiguous. Challenges progress steadily in order to keep participants on the edge of their abilities. As a result, players of games are able to concentrate, exert control over their environment, and become less self-conscious. Research on sit-down games specifically, let alone in an after-school context, is extremely sparse, however.

Social partners during after-school activities. Although adolescents enjoy almost any activity more when in the presence of peers (Csikszentmihalyi & Larson, 1984), they appear to pay more attention and concentrate better when doing activities with adults. For example, children doing homework with their parents were found to attain better grades than those who do not (Leone & Richards, 1989). Those participating in structured enrichment activities with parents or other adults obtain important performance information to improve their skills (Csikszentmihalyi, 1990) and judgments to evaluate continuation of the activity (Fredricks et al., 2002). If adolescents enjoy activities more with peers, and concentrate better with adults, then activities with peers *and* adults may take on a special significance by potentially combining the benefits of enjoyment and concentration critical to positive youth development (Larson, 2000).

Measuring Subjective Experience

With only rare exceptions (e.g., Eccles & Barber, 1999; Larson et al., 2006), studies of extracurricular activities in after-school contexts have focused on a single activity and have used one-time measures of attitudes, motivation or achievement. This approach has conveyed little about adolescents' immediate experience while engaged in various after-school activities. In this study, we utilized the Experience Sampling Method (ESM), to examine students' intrinsic motivation, concentrated effort, positive and negative mood states, and engagement in the aforementioned activities as well as with various social partners. By collecting systematic, repeated-measures data on what after-school program participants think and feel during live moments that program activities were occurring, the ESM reduced recall and estimation errors inherent to surveys and retrospective interview (Heckner et al., 2007; Larson & Csikszentmihalyi, 1983). The ESM offers not only strong ecological validity; studies have also associated the ESM with impressive levels of internal, face, and situational validity, as well as reliability of measurement (Csikszentmihalyi & Larson, 1987; see also recent review of validity and reliability information across multiple studies by Hektner et al., 2007).¹

Goals of the Study and Hypotheses

We investigated the following research questions: (1) What were average levels of subjective experience measures (i.e., intrinsic motivation, concentrated effort, positive and negative mood states, and engagement) during selected activities in the after-school programs? Were these levels significantly different in a given activity compared to those reported in all other program activities? (2) What were average levels of subjective experience measures with selected social partners (i.e., peers only, adults only, or both peers and adults) in the after-school programs? Were these levels significantly different when with certain social partners compared to others during after-school programs? Based on our review of the literature, we expected intrinsic motivation, concentrated effort, and engagement to be high in sports, arts enrichment, and academic enrichment activities. In contrast, we predicted that while completing homework, concentrated effort would be high but that intrinsic

motivation and engagement would be low. We also expected intrinsic motivation to be high with peers, concentrated effort to be high with adults, and both intrinsic motivation and concentrated effort to be high when with adults and peers, resulting in high overall engagement.

Method

Participants

Data were collected in two medium sized cities and one small town in three Midwestern states. A total of eight middle schools participated in the study: three schools each from two communities and two schools from the remaining community. All participating schools offered after-school programs. Five schools offered federally funded, *21st Century Community Learning Centers*; the remaining programs were funded by local school districts and city governments.

The initial subject pool consisted of 234 eighth grade students evenly distributed across schools and communities. Of this group, only students attending after-school programs and providing ESM data about their program experiences comprised the sample for the study ($N = 165$). Fifty percent ($n = 83$) was male. Thirty-seven percent ($n = 61$) was Black; 11% ($n = 18$) was Latino; 39% ($n = 64$) was White; and 13% ($n = 22$) was another ethnicity including Asian (1%), Native American (2%) or multiple ethnicities (10%). The sample was also economically diverse: 25% ($n = 40$) had household incomes less than \$19,999; 24% ($n = 39$) reported incomes between \$20,000 and \$39,999; 18% ($n = 29$) reported incomes between \$40,000 and \$59,000; and 22% ($n = 37$) reported household incomes over \$60,000. With respect to mother's highest level of education, 17% ($n = 27$) had less than a high school degree; 22% ($n = 35$) were high school graduates; 31% ($n = 51$) had some college or vocational school; and 22% ($n = 37$) had a four-year college degree or more.

Procedures

The Experience Sampling Method (ESM). During one week in the fall and one week in the spring of the 2001-2002 school year, students wore digital wristwatches pre-programmed to randomly signal, or beep, five times daily during non-school hours (3:30 pm to 8:30 pm on

weekdays and 10:00 a.m. to 8:30 pm on weekends). Students recorded their experiences in a daily logbook each time they were beeped. Each logbook contained 5 two-page entries. The first page of each entry asked several open-ended questions about location (“where are you?”), the primary activity (i.e., “what is the main thing you are doing?”) and secondary activity (i.e., “what else are you doing?”). Then, students were then asked about their social partners: “Who was doing this activity with you?” and “Who else was around but doing something else?” Students circled all those who were present from a menu of social partners including teacher(s), program staff, friend(s), and others. On the second page of each entry, students rated two sets of items using a 4-point scale ranging from 1 (*not at all*) to 4 (*very much*). The first set of items included: a) *Choice*: “How much choice did you have about this activity?” b) *Importance*: “How important was this activity to you?”, c) *Interest*: “Was it interesting?” d) *Challenge*: “Was it challenging?” e) *Enjoyment*: “Did you enjoy what you were doing?” f) *Concentration*: “How hard were you concentrating?” g) *Skills*: “Were you using your skills?” and h) *Wish*: “Did you wish you were doing something else?” The second set of items responded to the questions, “How were you feeling when you were signaled?” Students rated the following moods: *lonely, happy, angry, stressed, excited, bored, scared, sad, relaxed, proud, and worried*. Participants were paid \$1.00 for each logbook entry completed. Participants responded, on average, to 33 of the 35 signals (94% response rate).

Training. Prior to being given the watches and logbooks, students completed a 45-minute ESM training session that was conducted by two members of the research team. Students were instructed to be as specific as possible when describing their location, activities, and companions at the moment of being beeped. Field staff met daily with participants to check logbooks for accuracy and missing data, to answer questions, and to distribute the next day’s logbooks. If participants made any errors, misunderstandings with respect to completing the ESM properly were immediately clarified. Most of the participants followed the instructions given without difficulty, demonstrating to field staff that they had been properly trained.

Coding of activities and social partners. Responses to open-ended items were coded by trained coders. The activity and social partner codes used in this study are presented in Table 1. The project managers first coded 25% of the data and then had several code-creation meetings in order to build consensus on coding categories for activities and social partners. They then prepared a codebook with detailed criteria for each coding category and coding instructions for the benefit of two coders who were thoroughly trained in the codebook prior to coding. All data were coded by the two coders with disagreements coded by consensus. Coded responses were double-entered into a database by trained data entry specialists.

Results

A total of 1,596 self reports during after-school programs were collected from the 165 participants ($M = 9.7$ self-reports per participant). First, we report the frequency of self-reports in each of the selected activity and social partner categories. Second, we report results of a factor analysis of our subjective experience variables. Third, we present results of multi-level models comparing subjective experience by the most commonly reported activities. Fourth, we present results of multi-level models comparing subjective experience by social partner categories.

Frequency of Reports by Activity and Social Partner Categories

As shown in Table 1, the most frequently reported activities were sports (32%), arts enrichment (12%), socializing (11%), homework (8%), academic enrichment activities (5%), and sit-down games (4%). Based on frequency, these six most common activities were selected for subsequent analyses comparing students' subjective experiences while engaged in them ($n_{SELF-REPORTS} = 976$).

With respect to social partners, participants reported being with peers and adults the most frequently (53%), followed by adults only (37%) and peers only (4%). Six percent of self-reports could not be coded in any of these three categories with a high degree of confidence due to ambiguous completion. All three categories were utilized in subsequent analyses ($n_{SELF-REPORTS} = 1,492$).

Subjective Experience Factor Analysis and Composite Creation

Next, a series of factor analyses of subjective experience variables were conducted and composite variables were created. First, a factor analysis using Promax rotation was performed on the eight logbook items relating to the perception of one's activity. Two factors were associated with eigenvalues over one. The first factor, which we labeled, *Concentrated Effort*, consisted of high loadings for *challenge* ($l_1 = .92$), *skills* ($l_1 = .91$), and *concentration* ($l_1 = .91$). The second factor, which we labeled, *Intrinsic Motivation*, included high loadings for *enjoyment* ($l_2 = .81$), *wish* (reversed, $l_2 = .78$), *choice* ($l_2 = .74$), and *interest* ($l_2 = .61$).

A second factor analysis was performed on the 11 logbook items relating to mood. Three factors were associated with eigenvalues over one. The first factor, which we labeled, *Positive Affect*, consisted of high loadings for *proud* ($l_1 = .82$), *excited* ($l_1 = .80$), *happy* ($l_1 = .72$), and *relaxed* ($l_1 = .68$). The second factor was labeled, *Negative Affect*, and included loadings for *scared* ($l_2 = .80$), *worried* ($l_2 = .79$), *sad* ($l_2 = .73$), *angry* ($l_2 = .59$), and *stressed* ($l_2 = .50$). The third factor was labeled, *Apathy*, including loading for *bored* ($l_3 = .85$) and *lonely* ($l_3 = .61$). The top loading items were averaged to form composite variables of each factor and were utilized as dependent variables, along with one stand-alone item that did not load highly onto a factor, *importance*. For Concentrated Effort, $\alpha = .88$; for Intrinsic Motivation, $\alpha = .74$; for Positive Affect, $\alpha = .75$; for Negative Affect, $\alpha = .76$, for Apathy, $\alpha = .43$.

In addition to the composites created from factor analysis, we also created a composite variable for *Engagement* adopted from our previous research (Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003). The *Engagement* composite combined the variables, *concentration*, *enjoyment*, and *interest* ($\alpha = .77$). Based on flow theory, we conceptualized students to be engaged only when all three were experienced simultaneously.

Research Question 1: Subjective Experience in Selected After-School Program Activities

Do students have a higher quality of experience in some activities than others, and when interacting with some social partners compared to others? Multilevel models were deemed to be an appropriate analytic tool given the nested structure of the data collected (Bryk & Raudenbush, 2002). Comparing all six selected activity categories in a single model was not deemed to be appropriate due to problems with missing data (i.e., not all students contributed self-reports in all activities). Therefore, we ran a separate model testing the effect of each activity independently. The main objective of these analyses was to determine whether participation in a given activity, represented as a dummy variable, was associated with significant differences in subjective experience variables compared to other program activities in which the same individual participated. All 1,596 self-reports in after-school activities other than those reported in the tested activity were utilized in the statistical comparison to “all other activities” in which an individual may have participated. Therefore, each model consisted of both a within-student (Level 1) and a between-students (Level 2) variance component, with the effect of the activity modeled as a within-students (Level 1) effect. Dummy variables for *gender* and *race/ethnicity* were added to each model at Level 2 for controls. However, we do not report significant interaction effects for gender or race/ethnicity because the number of significant interactions did not meaningfully exceed that expected from the Type I error rate. Socioeconomic indicators were not utilized as control variables since preliminary analyses indicated that there were no significant interactions between SES and activity or social partner.

Table 2 presents subjective experience scores (columns) in each of the selected activities (rows). Four statistics are presented in each cell of the table. The first is the mean outcome score (e.g., intrinsic motivation) in a given activity controlling for gender and ethnicity. This was computed by summing the level-1 intercept and coefficient for the average activity effect, γ_{20} . The second statistic, γ_{20} , is the coefficient for the average activity effect after accounting for

ethnicity and gender, along with the results of its significance test denoted with asterisk(s). This coefficient may be interpreted as the average effect of being in a given activity compared to all others. The third statistic is the standard error (*SE*) associated with the coefficient. The fourth statistic is an estimate of effect size comparable to Cohen's *d* (Cohen, 1992) in the context of multi-level models.² According to Cohen (1992), a small effect size for *d* is 0.20; a medium effect size is 0.50; and a large effect size is 0.80.

As shown in the first row of Table 2, mean intrinsic motivation during sports was 3.32. The activity effect, .34 (*SE* = .09), indicates the mean of 3.32 was on average .34 higher than mean engagement in other activities. Furthermore, this difference is significant at $p < .001$. The effect size of 0.53 was moderate. Students also reported higher concentrated effort, importance, and overall engagement in sports, which were all large effects; and they reported lower apathy. There was a similar pattern in arts enrichment activities, with students reporting significantly higher intrinsic motivation, concentrated effort, and engagement when participating in them, and lower apathy. Effect sizes were medium to high. Students reported lower concentrated effort, importance, negative affect, and engagement when socializing compared to other activities, with moderate to high effect sizes. While doing homework, students report lower intrinsic motivation, positive affect, and overall engagement, while reporting higher apathy than in other activities. These effect sizes are all high, especially that for intrinsic motivation. In academic enrichment activities, positive affect was higher and negative affect was lower compared to other activities. In sit-down games, intrinsic motivation and concentrated effort were higher, while importance and negative affect were lower, than in other activities. The effect sizes for academic enrichment and sit-down games were small to medium.

Descriptively, a comparison of mean scores in each activity (without reference to statistical significance) indicates that students reported the highest overall mean engagement during sports and arts enrichment activities. Students also reported the highest concentrated effort and

importance, and the lowest apathy, when playing sports. They reported the highest intrinsic motivation in arts enrichment activities, sports, and sit-down games. Positive affect was highest in sit-down games, arts enrichment and academic enrichment activities. Negative affect was lowest during sit-down games, while socializing, and in academic enrichment activities. On the other hand, students reported the lowest intrinsic motivation, positive affect, and overall engagement during homework completion compared to other selected activities. Apathy was also the highest when completing homework. Compared to the other selected activities, concentrated effort was lowest when socializing. Importance was lowest when socializing and during sit-down games.

Research Question 2: Subjective Experience in Social Partner Categories

Multi-level models and a similar analytic strategy were used to compare subjective experience in social partner categories controlling for gender and ethnicity. However, since there were only three social partner categories, it was deemed appropriate to represent all three in a single model for each subjective experience outcome variable. Table 3 presents these results. Each model is represented in a separate column. *Adults only* and *peers and adults* were the two Level-1 partner categories entered into each model. *Peers only*, which included 4% of the self-reports, was the default category. The first row in Table 3 provides the intercept, γ_{10} (and *standard error*), which indicates the mean of each outcome variable when with peers only. Therefore, mean intrinsic motivation was 2.70 when with peers only. The next two rows in Table 3 present the coefficients indicating effects of being in the other social partner categories, γ_{20} and γ_{30} (and *standard errors*). Mean intrinsic motivation was 0.38 higher when with adults only than with peers only, and this difference is statistically significant with a moderate effect. Intrinsic motivation is 0.56 higher when with peers and adults than when with peers only, a difference which is also significant with a large effect size. Higher overall engagement was also reported when with peers and adults than with peers only. In addition, students reported lower importance and higher apathy during time spent with adults only than with peers only. Descriptively,

the highest mean engagement and intrinsic motivation was reported when with peers and adults, and the lowest was reported when with peers only.

Discussion

Although not an explicit goal of the study, our frequency analyses of self-reports in after-school program activities provides an estimate of the percentage of time after-school participants spent in various activities. According to these estimates, sports comprised almost one-third of all time spent in the middle school after-school programs that we studied. Students also spent a fair amount of time in arts enrichment (12%), socializing (11%), and homework completion (8%) activities. These activities appear to be mainstays of the after-school programs studied, most of which were federally funded, *21st Century* after-school programs. Students were positively engaged and exhibited high intrinsic interest and concentrated effort particularly in sports and arts enrichment activities. Both activities elicited the rare combination of high intrinsic motivation and concentration critical for positive youth development (Larson, 2000).

The Experience of Sports and Arts Enrichment Activities

Because so much time in after-school programs are devoted to sports, participation in such programs may act as a counterforce to declining sports involvement, serving as a protective factor against increasing obesity and overweight in children and adolescence (National Center for Health Statistics, 2005). When playing sports in after-school programs, participants frequently reported peak engagement and intrinsic motivation. Sports appear to be engaging in part because youth find them to be more important than most other after-school activities, and the high level of challenge drives them to play to the fullest extent of their skills. As demonstrated in the literature, participation in sports can also help youth to develop self-efficacy, confidence, and feelings of competence by virtue of mastering complex physical and social skills (Broh, 2002; Kirshnit et al., 1989). Our findings suggest that the experiential pathway to such outcomes is one of peak engagement and intrinsic motivation. It is interesting to note that

negative affect, which includes measures of feeling stress, worry, and anger, was not high in sports relative to other after-school activities, which is inconsistent with previous research associating sports participation with stress. It is possible that stress is detected less often while “in the moment” of playing sports than when in reflecting on one’s involvement.

The Experience of Socializing

Students were relatively disengaged while socializing, reporting such experiences as unimportant and undemanding of concentrated effort. Interestingly, negative affect was low, but positive affect and intrinsic motivation were not high as one might expect. This pattern suggests that adolescents may socialize in after-school programs to stave off negative emotions like loneliness or boredom, but do not experience the same momentary intrinsic rewards socializing as when playing sports, engaged in the arts, or other such structured activity.

The Experience of Homework Completion and Academic Enrichment Activities

Consistent with Leone and Richards' (1989) study, students’ experiences of homework were decisively negative, characterized as high in apathy and low in engagement. It is perhaps not surprising that intrinsic motivation and positive affect were also low, and it should be noted that those effect sizes were large. Given the importance and demands of academics the perspective of adults, it is more surprising that students’ perception of concentrated effort or importance was not high compared to other activities. This finding supports Warton’s (2001) assertion that students’ rarely perceive the relevance and practical value of completing homework that adults ascribe to it. Furthermore, though Leone and Richard’s found that students’ experience of homework was most negative when completing it alone, our study suggests that the adult supervision and peer support inherent to after-school programs did not make the experience a positive one as one might expect.

We speculate that a variety of factors may contribute to students' negative experience of completing homework. Students complete homework in middle school mainly for the sake of

teachers or parents, and because there can be negative consequences for failure to do so (Warton, 2001). When students are working on homework in after-school programs, they may be continuing their participation in the more controlling and evaluative dynamics of traditional classroom settings, despite physically working on it in an after-school program. It is also likely that the choice and feedback present in other program activities are absent from most homework help sessions.

The contrast between participants' experience of homework and academic enrichment activities is instructive partially because the same students were working with the similar skill sets in the same environment during both activities. In the present study, academic enrichment activities are not experienced as negatively as completing homework in terms of intrinsic motivation and engagement. In addition, whereas students report the lowest level of positive affect while completing homework compared to other program activities, they report among the highest level of positive affect and lowest levels of negative affect while in academic enrichment activities. Like sports and the arts, academic enrichment activities may be experienced positively because they likely support autonomy and facilitate group involvement with peers and adults. In group projects, for example, program participants can exercise leadership, responsibility, and initiative.

The Experience of Sit-Down Games

As one might expect, playing sit-down games was experienced positively in terms of intrinsic motivation, concentrated effort, and affect. Unlike sports and the arts, however, playing games was rated as relatively unimportant. This difference is not trivial, since youth are unlikely to continue building skills that are not considered important and meaningful, even if they are enjoyable in the moment.

After-School Experiences by Social Partners

Program participants reported their experiences with adults as more intrinsically motivating, but also less important and more boring, than with peers only. However, they reported being the most intrinsically motivated and engaged when with adults and peers, and significantly more so than with peers only. While these results may be somewhat confounded with activity, they suggest that after-school programs can be unique environments in which adult supervision and peer interaction are offered simultaneously, a combination likely to result in peak engagement and intrinsic motivation. The combination may help to explain why students report significantly more positive experiences in after-school in programs than elsewhere after school (Vandell, Shernoff, et al., 2005).

Recommendations for Practice

The positive experience of youth while playing sports and during arts enrichment activities both in terms of intrinsic motivation and concentrated effort – a combination characteristic of positive youth engagement and development -- suggests additional justification to maintain or increase resources for programs in the sports and the arts. Programs would also seem to maximize students experience by reducing idle time for socializing and maximizing structured, adult-supervised activities.

With respect to homework, the issue for practice appears to be one of emphasis. The inclination to exclusively emphasize homework in after-school programs to improve achievement – thus creating more “school after school” -- may be misplaced at the middle school level. Cooper's (1989) meta-analysis of homework practices found that the relationship between homework and achievement was curvilinear for junior high school students, disappearing entirely beyond one to two hours of homework per night. This suggests that middle school students may become satiated with homework beyond several hours spent completing it, posing a greater need for social, artistic and athletic leisure activities. This study further suggests that

emphasizing homework to the exclusion of other activities would likely result in a more negative experience for participants overall, possibly resulting in reduced voluntary attendance.

There is much evidence suggesting that homework can be beneficial (Bempechat, 2004) and can play an important role in after-school programs, particularly for students at risk for school failure (Beck, 1999; Cosden, Morrison, Albanese, & Macias, 2001). The critical issue, however, appears to be how academic and homework tasks are structured. The experience of participants may be improved by considering academic alternatives to homework, or by structuring homework time to be similar to the format of academic enrichment activities. Explicitly embedding academic content in authentic enrichment activities that support learning offers a meaningful and engaging alternative to strictly continuing work assigned in academic classes. There are a variety of examples available of engaging and well-structured programs that effectively and intentionally combine the reaching of developmental, academic, and long-term achievement goals (e.g., see, for example, Beck, 1999; Mahoney, Lord et al., 2005; Noam, 2004; Vandell & Shumow, 1999).

Policy Implications

Given that low attendance in after-school programs is attributed to lack of interesting and appealing activities (U.S. Department of Education, Office of the Under Secretary, 2003), determining which activities are considered engaging and motivating helps us directly address the issue of voluntary participation. Improving attendance in after-school programs requires strong appeal of the activities offered, as well as the ability to maintain continued engagement. Extracurricular activities and after-school programming have become increasingly vulnerable to budget cuts in times of fiscal constraint. Therefore, it is important for policy makers to have a firm grasp on the extent to which sports and enrichment programs enhance the quality of experience for youth. Some of the most valued and immediate outcomes of sports, the arts, and other enrichment activities are appreciation, joy, interest, deep concentration, and overall

engagement. These positive experiences enrich the lives of youth, but are not easily measured. Once engagement is quantified and measured in specific activities, engaging activities deserve justification based on intrinsic and experiential grounds.

Limitations and Future Research

One significant limitation of this study is that the sample was not large or nationally representative, including students from only eight schools in three states in the Midwestern U.S. In addition, the study relied on self-report data, which are ideal for studying students' quality of experience in context, but vulnerable to problems with hasty completion, exaggeration, and intentional falsification. Third, results from this study are primarily correlational, making inferences about causal relationships only speculative. Finally, while this study focused on specific activities within programs, it did not specifically address outcomes associated with participation in those activities, such as its influence on academic achievement. Clearly, it must be the job of future research to identify specific characteristics and outcomes associated with various activities in after-school programs, and how those outcomes vary by program type.

Implications for Youth Development

Individuals have a greater need for autonomy and independence as they move through middle childhood and into adolescence (Eccles, 1999), making engaging and intrinsically motivated activities developmentally important. Unlike most previous studies of after-school contexts, we investigated engagement and intrinsic motivation in multiple activities and social arrangements in after-school programs rather than studying programming as a single entity or specific activities in isolation. We found that a variety of activities offered by after-school programs, particularly sports and arts enrichment activities, were both intrinsically motivating and engaging for middle school youth. Middle school children also appeared to be motivated by the predominant social structure of after-school programs, where most activities are performed with peers and adults. Academic enrichment activities, which are similar in structure to sports

and the arts in terms of facilitating group involvement with peers and adults, were associated with more positive affect than completing homework.

High engagement in after school program activities is particularly significant given the lack of engagement when in school and at home for many adolescents relative to voluntary, structured activities (Csikszentmihalyi & Larson, 1984; Larson, 2000). By replacing time spent in unorganized activities after school like watching TV, snacking, and unsupervised socializing (Vandell, Shernoff, et al., 2005), engagement in school-based academic or non-academic activities can increase identification with school (Jordan, 1999; Marsh, 1992) and ultimately academic achievement (Cooper et al., 1999). After-school activities thus appear to be unique venues in providing students with opportunities to simultaneously achieve autonomy, skill development, and relatedness – perhaps the three most fundamental motivational forces in human nature according to developmental psychologists (Eccles, 1999; Ryan & Deci, 2000).

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Endnotes

¹ In terms of internal validity, studies have found the ESM to overreport and underreport a broad range of activities less than time diaries (Csikszentmihalyi & Larson, 1987); that 94% of participants “never” or almost never alter the truth in responding to it (Larson and Richards, 1994); and that 80-90% of participants claim that the self-reports captured their “normal” range of experience (Csikszentmihalyi & Larson, 1987). In terms of face (or content) validity, studies have found a correlation of .93 between ESM and time diaries measures of ranked frequencies of time spent in different activities (Csikszentmihalyi & Larson, 1987). With respect to situational validity, reports of being “active” with the ESM have been moderately correlated with measures of heart rate taken by activity monitors (Csikszentmihalyi & Larson, 1987). In terms of reliability, or consistency of reported internal states, multiple studies have found moderate to high correlations between aggregated average activity estimates and ratings of experience reported by participants in the first half of a week compared to that reported in the second half of the same week (e.g., Csikszentmihalyi & Larson, 1987).

² This was calculated as the activity effect, γ_{20} , divided by the square root of the residual level-1 variance.

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Table 1
Activity and Social Partner Codes and Frequencies

Activity Code	Frequency	Percent
Sports ^a	512	32
Arts enrichment ^b	199	12
Socializing	172	11
Homework	122	8
Academic enrichment ^c	82	5
Sit-down games	63	4
Attending cultural/sporting event	61	4
Organized interests or clubs	58	4
Snack or meals	45	3
Video games	41	3
Other / Miscellaneous	241	14
Total	1596	100
Social Partner Code		
Peers and adults	841	53
Adults only	587	37
Peers only	64	4
Ambiguous/other	104	6
Total	1596	100

Note. Frequencies indicate the number of self-reports. ^a Combined organized sports ($n = 439$) and informal/solitary sport ($n = 73$). ^b Combined arts enrichment ($n = 131$), arts and crafts ($n = 11$), and dancing and singing ($n = 57$). ^c Combined academic enrichment ($n = 46$) and educational computer use ($n = 17$).