The Psychology of Youth Participation in Organized Activities

by

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To Rachel, Maia, Talia, and Nera

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Abstract

Organized activities for youth, defined as purposeful, structured offerings that are not part of the school curriculum, play an increasingly important role in the learning and development of young people. This dissertation investigates factors related to youth psychological experiences in such voluntary learning settings. The dissertation begins with four propositions: Organized activities are important in young people's educational ecologies, they are more than school replacements, understanding motivation in these settings is critical, and related scientific advancement will require multiple methodologies. Two empirical studies are presented, focused on staff practices and youth program experience. Both involve multilevel, quantitative analysis using a dataset with over 1000 youth nested in over 60 programs. Findings suggest that particular staff practices relate to specific elements of youth experience—support for active skill-building associates with youth cognitive engagement, and staff welcoming practices associate with youth sense of belonging. The strategy of actively involving youth in the leadership and operation of youth programs correlates positively with multiple youth motivational constructs, including perceived value of the program and leadership-related expectancies. Moderation analyses suggest these positive associations are stronger for older youth. The concluding chapter discusses these findings in the context of current youth development research, the two educational goals of workforce and citizen development, and implications for future directions.

Chapter 1

Four propositions for advancing the science of organized activities

A child growing up in America today is exposed to technologies and information flows undreamt of just a few decades ago. For the first time in history, a youth can access enormous volumes of human learning with a few finger clicks. With social media like Facebook and Twitter she can experience social and identity development across multiple new contexts. Music, video, and other entertainment media are available on-demand and in massive variety and quantity. All of these increased affordances, however, bring added complexities. Today's youth must make decisions about how to spend time and money, and how to learn and develop in what Larson (2011) refers to as our "disorderly world". In sum, the psychological experience of being a youth in America has changed and is changing, an issue with great import for education.

The task of socializing and preparing youth for future success has always been challenging; however, today's educational landscape features particular complexities. Books and documentaries chronicle toxic, failing schools and just a few that beat the odds (e.g., the film, *Waiting for Superman*). Pundits regularly lament the U.S. standing in international test rankings, presenting the narrative that American education is in decline (Peterson, 2003); although nationally, scores have been slowly rising in math and reading over the last three decades (National Center for Education Statistics, 2011a, 2011b).

Politicians argue about the management and financial structures of schooling. Data—in general and on child achievement in particular—are now much more widely available than in the past, and the use of educational data can be contentious.[1] To add to this complexity, educators must prepare students for future in which the nature of work is less predictable than it may have been for previous generations, a sentiment expressed in the 2007 viral video, *Did You Know?:* "We are currently preparing students for jobs that don't yet exist…using technologies that haven't been invented…in order to solve problems we don't even know are problems yet" (Fisch, McLeod, & Brenman, 2008). In sum, today's educators have an exciting, yet very difficult job.

In this chapter I suggest that certain types of organized activities play an increasingly important role in the learning and development of our nation's young people. These organized activities for children and adolescents are offerings that are not part of the school curriculum and are characterized by adult-supervision, structure, voluntary attendance, regular and scheduled meetings, and often a focus on skill-building (Mahoney, Larson, Eccles, & Lord, 2005). A broad range of organized activities is available to youth, including sports, arts, music & drama, leadership development, and community service. Besides traditional extracurricular sports and clubs, many schools now offer daily afterschool academic enrichment programs through 21st Century Community Center (CCLC) grants. National organizations, including 4-H, Girl Scouts, Boy Scouts, Camp Fire, Boys & Girls Clubs, YMCA, YWCA, and local community

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[1] Collection and use of educational data can be contentious in numerous ways. For example, several data-related components of the No Child Left Behind Act have sparked concerns and debates including required annual testing, assessment of "highly qualified" teacher, and rules surrounding adequate yearly progress. In addition, the sharing of student data with individual identifiers raises privacy concerns for many students and parents. As a third example, the use of teacher performance data for high stakes decisions such as promotion and firing, has been fought by teachers unions.

centers and faith-based youth organizations provide organized activities for millions of youth across the country.

Specifically, I will present four propositions. First, I suggest that organized activities will increasingly play important roles in young people's educational ecologies. The expansion of organized activities that we've seen in the past few years will continue. Coupled with new technologies that open up the capabilities for anytime learning, organized activities will gain importance in young people's education. Second, I suggest that organized activities are more than an extended arm of the school environment. Rather, the role that organized activities can play in young people's lives may complement school learning and provide youth with powerful learning experiences they would not otherwise have. Current pressures to focus organized activities on academic achievement to the exclusion of other goals—pressures that have spread from the school arena (No Child Left Behind, high stakes testing, etc.) into out-of-school time contexts— may jeopardize rather than stimulate the quality of OST activities. Rather, research is beginning to uncover important non-academic outcomes that participation in various activities produce for youth.

Third, I suggest that understanding youth motivation in organized activities is critical if we are to understand their place and potential in young people's educational lives. As organized activities are not mandated as is school attendance, participation is voluntary to a much greater degree. This voluntariness is both a key ingredient and a factor that often makes randomized controlled trials (RCTs) inappropriate for evaluating effectiveness. This leads to the fourth proposition: Scientific study of organized activities requires multiple methodologies—RCTs may not be the gold standard. This chapter

reviews evidence related to each of these propositions and concludes with the rationale

for two empirical studies that are the substance of the present dissertation.

Proposition 1: Organized activities play increasingly important roles in young

people's educational ecologies

Over the last two decades, the field of organized activities has grown

tremendously. Estimates based on nationally-representative surveys show a strong and

steady growth in enrollment for children in grades kindergarten through 8: 1.7 million in

1991, growing to 9 million in 2001, then to 9.5 million in 2005.[2] In 2005, an estimated

46% of K-3 children and 54% of children in grades 4-8 participated in some kind of after-

school activity from among the following categories: sports, religious activities, arts,

scouts, academic activities, community services, clubs (Federal Interagency Forum on

Child and Family Statistics, 2007).

Not surprisingly, given work and other options for spending time, participation

rates for high school-age youth are lower. According to the nationally representative

America After 3PM study, approximately 1.1 million (7%) of youth in grades 9 to 12

participated in an after-school program in 2009 (Afterschool Alliance, 2009).[3]

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[2] These estimates are based on reports from the National Study of Before- and After-School Programs,
conducted in 1991 (Seppanen et al., 1993) and 2001 (Kleiner, Nolin, & Chapman, 2004), and the National
Household Education Study, conducted in 2005 (Carver & Iruka, 2006). The 1991 estimate is for children
in kindergarten through grade 8, enrolled in formal before and/or after-school programs. The 2001 and
2005 estimates include parental reports of participation in two categories: center or school-based programs;
and activities used for supervision.
[3] Note that participation estimates from the *America After 3PM* study by Afterschool Alliance are lower for
all grades than the estimates from the U.S. Department of Education (DOE) in the three reports mentioned
in the previous note (Carver & Iruka, 2006; Kleiner, Nolin, & Chapman, 2004; Seppanen et al., 1993). For
example, DOE estimates 9.5 million youth in grades K-8 participated in after-school in 2005 (Carver &
Iruka, 2006), whereas the *America After 3PM* estimate is that 6.5 million youth in grades K-12 participated
in 2004 (Afterschool Alliance, 2009). This difference may be due to differences in survey methodologies.
In *America After 3PM*, parental respondents indicated which programs youth participated in from a long
list of possibilities (e.g., afterschool program run by public school, YMCA afterschool program, Boys &
Girls Club afterschool program, etc.). The respondents to DOE surveys also indicated participation from a

Longitudinal results also reflect this participation decrease from early to late teens. Denault & Poulin (2009) found in a Canadian sample that intensity of participation decreases steadily over the adolescent years (grades 7-11), with a sharp decline between 10th and 11th grade.

Investments in after school have also increased. 21st CCLC funding began with $40 million 1998, grew to $1 billion in 2001 (Afterschool Alliance, 2011), and it has remained at about that level with $1.2 billion spent in 2010 (U.S. Department of Education, 2011b). There are currently over 10,000 21st CCLCs across the U.S. Private and local investments have also increased over the last two decades (Pittman, Tolman, & Yohalem, 2005).

With these increases, organized activities are becoming a fixture in many young people's lives. To conceptualize their role, we turn to developmental theory. Modern theories hold that human development involves bidirectional interactions between individual and contexts (Lerner, 2006). The bioecological model (Bronfenbrenner & Morris, 2006) presents a particularly useful perspective for conceptualizing development across multiple contexts. In this model, the socialization of youth into productive members of society occurs through youth-in-context interactions in the systems in which they participate. [4] Bronfenbrennerian systems are nested: the *microsystem* is the most proximal to youth, where direct youth-in-context interactions occur (e.g., a weekly music workshop in a youth program), the *mesosystem* involves interactions across microsystems

list of activities; however, their list is focused on content rather than program type (e.g., arts like music, dance or painting; sports; clubs, like yearbook, debate or a book club; etc.). Based on this, the DOE reports probably more accurately represents comprehensive participation.

[4] That is, in a social setting such a youth program, youth bring their experiences, background, motivation, etc. Everything else in the system is context, including peers, staff, content, physical space, etc. This youth-in-context system becomes an area of focus for research.

(e.g. parents and youth workers discussing a youths' participation in the music workshop), the *exosystem* includes settings that youth are not in but that influence development (e.g., parents' work), and the *macrosystem* includes the culture (Bronfenbrenner, 1979). The school microsystem plays a prominent role in socialization and education; however, United States youth spend 40-50% of their waking hours in discretionary activities—i.e., in contexts in which they have some choice over how they spend this time (Larson & Verma, 1999). The educational ecologies of young people's lives contain many features, of which school is only one, albeit an important one (Pittman, Tolman, & Yohalem, 2005).

I define "educational ecologies" broadly as the microsystems of influence on a young person's socialization, development, and education; an idea that underlies several practitioner movements in the field of youth development. This is comparable to the "education pipeline" metaphor used by, among others, the Forum for Youth Investment in their national Ready by 21® initiative (Yohalem, Ravindranath, Pittman, & Evennou, 2010). This metaphor connotes a path through childhood that results in successful educational outcomes. A goal of the Ready by 21® community initiative is to "insulate" the education pipeline; that is, to strengthen youth access to assets in their cities and neighborhoods (see *www.readyby21.org*). The educational ecologies concept is also compatible with the Developmental Assets framework promoted by the Search Institute (Scales & Leffert, 2004), arguably the most widely known approach to positive youth development. Developmental Assets integrates concepts from resiliency, protective factors, and connectedness into an overall perspective that supports building multiple supportive contexts for youth (Benson, Scales, Hamilton, & Sesma, 2006).

I have made the case that organized activities are now prominent in the lives of many young Americans; I now propose that learning outside of school contexts will continue to gain in importance. This sentiment can be expressed with the concept of life*wide* learning. Whereas life*long* learning is the idea that education continues after formal schooling, life*wide* learning is the idea that important learning occurs in multiple settings in a person's life (Banks et al., 2007). Figure 1.1 depicts lifelong and lifewide learning, across formal and informal learning settings. Despite the large 18.5% block representing primary and secondary school, the amount of informal learning time available far surpasses the formal.[5] We might consider organized activities to be *semi-formal* youth-in-context systems—settings with potential to contribute productively and intentionally to the education pipeline.

Lifewide learning is amplified by the Internet and mobile computing. Young people are increasingly connected to information and to each other through mobile devices and sophisticated online platforms. Every new technology (e.g., the blackboard, the television) is greeted with enthusiastic expectations that it will revolutionize education followed by general disappointment, usually accompanied by blaming teachers for failure to meet said expectations (Cuban, 1986). But there are reasons to believe that this time things really will change. First, the sheer volume of information now available is staggering. The latest estimate is that there are 555 million web sites (Netcraft, 2011), and Google has been indexing over 1 *trillion* page since 2008 (Alpert & Hajaj, 2008). Second, new digital contexts entail new literacies and ways of understanding. For

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[5] Prior to the publication of the lifewide image presented in Figure 1.1, the idea that a vast amount of time is available to youth outside of school has also been compellingly made with "the cube" image, which contrasts formal and informal time across the dimensions of age, time of day, and outcome area (Pittman, Tolman, & Yohalem, 2005)

example, considerable skills are required to produce a high-quality YouTube video—skills that may prepare young people for workplace problem-solving. Importantly, web-based technologies improve the availability of "always-on learning"; an idea embraced by the U.S. Department of Education.

The idea of lifewide learning and importance of always-on learning underlies the current U.S. National Education Technology Plan (U.S. Department of Education, 2010). This plan urges educational professionals to adopt a broad view of educational contexts in order "to move us beyond the traditional model of educators and students in classrooms to a learning model that brings together teaching teams and students in classrooms, labs, libraries, museums, workplaces, and homes—anywhere in the world where people have access to devices and an adequate Internet connection" (p. 11). In short, new learning contexts are proliferating; it is the job of education to incorporate informal learning into views of education.

A vivid empirical example of how technology is moving society toward lifewide learning appears in a series of studies by Sugata Mitra (Mitra, 2010). In the *Hole in the Wall* experiments, Mitra and his colleagues (Mitra et al., 2005) installed computers with Internet access in several rural villages in India, and found that groups of children were able to self-organize and gain computing literacy without instruction from adults. In another study, Mitra gave students in a remote Indian village Internet access and asked them to learn basic molecular biology, and found that their learning was equal to that of students in a privileged private school with teacher-mediated instruction (Mitra et al., 2005). These learning settings address topics that might be addressed in school; however, they are happening in contexts that don't look at all like traditional school classrooms.

Encouraged by his findings, Mitra started to build "self-organizing learning environments" across India, facilities designed for small groups of children to interact with an Internet-linked computer with a large screen, engaged in solving questions, assisted by "the granny cloud", volunteers such as retired teachers interacting over Skype (See *solesandsolmes.wikispaces.com*). Mitra argues that a strong learning context consists of a group of 3-5 students gathered around an Internet-connected computer, with a question-driven pedagogy with minimal adult interaction.

These studies demonstrate that technology-enhanced non-school learning is now possible and increasingly common in young people's lives. Organized activities may provide an ideal place for such "semi-formal" learning to occur. To summarize this first proposition: We will not solve the problems of education if we ignore organized activities. The world is changing, voluntary learning is becoming increasingly important, and organized activities are a good place for such learning to occur.

Proposition 2: Organized activities are more than school replacements

Organized activities, particularly in afterschool programs, are now often seen primarily as avenues for improving academic achievement. The National Education Association calls for "closing the gap through extended learning opportunities" (National Educaiton Association, 2008); nearly every out-of-school time (OST) program evaluation includes academic achievement as a primary outcome (Halpern, 2006), and there are numerous recent calls for organized activities to increase their "alignment" with school curricula (Beckett et al., 2009). These pressures extend from an important set of problems: U.S. students do not perform as desired in the global arena, an issue made more salient by increased availability of international educational rankings; achievement

gaps are pervasive; dropout rates are high. If organized activities that occur outside of school hours can help address these challenges—and evidence suggests that in the right circumstances they can (Durlak, Weissberg, & Pachan, 2010; Lauer et al., 2006)—then resources should support this.

However, improving academic achievement through organized activity participation is often not the primary goal of providers, youth, or parents. Although 21st CCLCs receive federal funding with the explicit expectation that academic enrichment will be their primary goal (U.S. Department of Education, 2002), there are numerous, varied programs with a wide range of goals. A recent review of categorizations of organized activities in empirical research identified six broad categories: sports, arts, academic, community, service, and faith-based, and the vast majority of activities only indirectly relate to academics; e.g., art club, hobby clubs, scouting, environmental, volunteer service, etc. (Hansen, Skorupski, & Arrington, 2010).

A broader understanding of OST program goals is generally supported by parents. A recent national survey found that only 14% of parents indicated that youth should be involved in organized activities primarily to improve academic achievement; similarly, half the parents surveys agreed with the statement that "kids get more than enough academics during the school day, so after-school programs should focus on other things that capture their interest" (Duffett & Johnson, 2004, p. 13). A separate study asked parents with children enrolled in afterschool programs why they selected their program— only 3% indicated "quality academic programs" as the most important reason; whereas "my child enjoys the program" was rated most important by 28% of parents (Afterschool Alliance, 2009). Although high quality activities may enhance academics *and* meet other

goals, holding programs accountable only for academic gains risks turning a youth

program into what Granger called "a poorly implemented extension of the school day"

(Granger, 2008, p.3). Halpern (2006) summarizes this position, arguing against what he

calls "the big lie", that after-school programs should be judged solely on their ability to

improve academic outcomes:

> …after-school programs are well suited to providing the types and
> qualities of developmental experiences that other institutions (e.g., the
> schools and public play spaces) can no longer provide for most low- and
> moderate-income children. These experiences, whether in the arts,
> humanities, sciences, civics, physical activity, or other domains, include
> play and sheer fun, exploration, and learning from adults skilled in
> different domains. (p. 112)

Organized activity settings may provide learning experiences for youth that they

are not likely to receive in other settings—learning in areas that organized activities may

be uniquely set up to address. Organized activity research has found benefits in areas

such as socioemotional, civic, and positive youth development (Arbreton, Bradshaw,

Sheldon, & Pepper, 2009; Durlak et al., 2010; Halpern, 2003; Lerner et al., 2005;

Shernoff & Vandell, 2010). However, to truly understand where organized activities may

fit in the educational ecologies of young people's lives, we must consider the variety of

activities that take place in these contexts. Organized activities occur within a diverse set

of programs with diverse funding streams, purposes, and characteristics. No one would

expect ballet lessons, school debate club, and a homework tutoring program to produce

the same experiences or the same outcomes. It depends on program goals and what they

do to achieve those goals.

Most critically, the investigation of the important developmental and learning

experiences young people may have in organized activities—and potential outcomes that

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organized activities are particularly good for—requires a long-term approach, including

grounded research[6] and careful consideration of what is important for young people to

develop successfully for tomorrow's world.

An example of this approach is found in the work of Larson and colleagues. In

2000, Larson called for the study of "initiative" in youth programs, defined as the ability

to be motivated from within and to be able to direct attention and effort toward a

challenging goal. Larson (2000) noted that beeper studies using the experience sampling

method indicated that youth were more likely to concentrate and feel intrinsically

motivated =—the key prerequisites to experience "flow"—while participating in youth

programs compared to when youth were in school or informally hanging out with friends.

Initiative experiences—goal setting, problem solving, and time management—were later

found to be particularly common in sports and arts programs (Larson, Hansen, & Moneta

2006). Larson and Brown (2007) found through qualitative analysis that a high school

theater program provided opportunities for young people to gain skills for emotional

management; that is, the theater experience provided numerous emotionally intense

episodes in which youth could practice reacting in a safe environment (Larson & Brown,

2007). Finally, through grounded theory research, Larson & Angus (2011) identified

strategic thinking—the use of systems reasoning to anticipate real-world scenarios and

plan work—as a potentially important outcome of arts and leadership programs for

adolescents. This decade of research describes three developmental areas—initiative,

emotional management, and strategic thinking—for which organized activities may

provide a particularly appropriate context.

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[6] That is, research involving grounded theory, which is theory developed through inductive analysis of
qualitative data (Bernard, 2006; Glaser, 1994).

Table 1.1 provides a summary of important outcomes that youth may achieve in organized activities—not including academic achievement nor specific learning such as building soccer skills through participation on a soccer team. These outcomes could be grouped in various ways, but what is important to notice is that: (a) programs tend to do what they set out to do; (b) there are many outcomes—simplification may be counterproductive; and (c) researchers are just beginning to uncover the effects organized activity participation may have on learning and development.

To summarize this second proposition, although there is some evidence that high quality organized activities may produce gains in academic achievement, not all programs pursue academic goals. Thus, accountability is a key component for OST programs, but holding all organized activities accountable only for academic achievement undermines the importance other important outcomes organized activities may be uniquely positioned to produce.

Proposition 3: Understanding youth motivation in organized activities is critical

Youth decide whether to initially visit or enroll in an organized activity, and whether to return for continued attendance. Although many factors may influence these decisions, including parents (particularly for younger youth), friends, peers, and other responsibilities like afterschool employment (Mahoney et al., 2009), attendance at organized activities is voluntary to a much greater degree than school. A common phrase in youth programs is, "youth vote with their feet"; suggesting that if youth are not satisfied they simply stop coming. For these reasons, motivation plays a prominent role in organized activities. Understanding motivational decisions about attendance are pivotal—

without continued attendance, youth learning or developmental outcomes are unlikely to occur.

Figure 1.2 provides a theoretical, motivational model of youth participation in organized activities, informed by current research in organized activities, particularly the participation model posed by Bohnert et al. (2010). Person-environment fit theory provides the overall structure for the youth-in-context system, suggesting that the decision to participate, engage, enter, or stay in the OST setting depends on the compatibility of that setting features and a youth's personal needs (Eccles & Midgley, 1989; Eccles, Midgley, Wigfield, Buchanan, Reuman, & Flanagan, 1993; Hunt, 1975). Youth bring their individual characteristics (gender, ethnicity, socioeconomic class) and psychological background (e.g., likes, dislikes, skills, self-efficacy believes, goals, motivational orientations) to the system, and the organized activity context supplies a space, a purpose, and features that, if aligned with youth characteristics and needs, can channel the motivational and learning potential towards productive developmental goals. Although this is a person-environment fit model, the assumption is that motivation to participate can be maximized for groups (e.g., 12-year olds interested in music) rather than tailored to every individual youth (cf. *stage*-environment fit in Eccles & Midgley, 1989). In addition, youth are active participants, co-creators of the dynamic transactional person-environment system (cf. 'thriving' in Lerner, Dowling, & Anderson, 2003).

Based on expectancy-value theory (Wigfield & Eccles, 2000), motivation is determined by a youth's expectations for success in this environment, and their beliefs about the value of attending. Value includes intrinsic value (will this be enjoyable?), attainment value (how personally important is participating?), utility value (does

participating contribute to my goals?), and relative cost. Cost may be particularly
important in the context of a voluntary environment; the choice to participate in OST
programs comes at the expense of not participating in other activities such as hanging out
at home, at the mall, on "the streets", or in the case of older youth, working. In other
words, adolescents' participation decisions are affected by the context of their lives—
their lifespace configurations (Peck, Roeser, Zarrett, & Eccles, 2008)—such as work and
increased involvement in school-based activities.

The multidimensionality of participation has been examined in several recent
studies, and *exposure* in Figure 1.2 may include such factors as enrollment, intensity
(frequency of participation in an activity), duration (participation over time), and breadth
(participation across activities) (Bohnert, Fredricks, & Randall, 2010; Mahoney, Vandell,
Simpkins, & Zarrett, 2009; Roth, Malone, & Brooks-Gunn, 2010; Weiss, Little, &
Bouffard, 2005). Intensity, sometimes conceptualized as "dosage" (e.g., Hansen &
Larson, 2007), has been assessed as hours per weekly attendance, frequency of
participation across a month, or mixed with breadth; for example, average hours per week
spent in all organized activities (Bohnert et al., 2010). In this model, youth *involvement*
represents the psychological experience of participation, and includes youth engagement
in and reaction to an activity. I suggest that youths' psychological experience of
participation—their involvement experience—is the primary gateway that determines
both future participation and whether learning occurs.

With the growth of participation opportunities previously discussed—including
both increased organized activity settings and increased technological contexts—if youth
do not find benefit in a learning context, they increasingly choose other options for

spending their time. In this section, I suggested that understanding motivation to participate is critical for realizing the developmental and learning potential of organized activities, and I presented a conceptual model that addresses many of the factors necessary for understanding motivation in organized activities.

Proposition 4. Scientific study of organized activities requires multiple methodologies; randomized controlled trials (RCTs) may not be the gold standard

RCTs provide the best available research design for determining causality—for example, in order to determine whether an educational innovation causes learning or developmental gains for youth participants. However, RCTs cannot address the majority of effectiveness questions related to organized activity contexts for two primary reasons. First, RCTs by definition require controlling participation, and although research designs exist that allow voluntary attendance within an experimental framework—particularly designs that take advantage of oversubscription—their application is limited. Second, many high quality organized activities arise from and are shaped by youth participants; thus selection effects (which RCTs are designed to eliminate from consideration by controlling for) may be key factors that make these programs work. To explicate these claims, I will first discuss RCTs and methodological considerations.

According to the What Works Clearinghouse, well-designed and well-implemented RCTs are considered to be the only research studies that provide "strong" evidence that an educational innovation is effective (WWC, 2011, Sept, p. 11). There is good reason for this assertion: randomly assigning participants to treatment and control conditions provides group equivalency, allowing researchers to compare those that have been exposed to a program with a group that approximates what the original group would

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have been like without the program exposure. Randomizing which youth participate in an organized activity would, in theory, eliminate selection bias. This is desirable for investigating voluntary learning contexts, as any observed effects may be caused by the characteristics of the youth who attend rather than by the features of the activity (for further discussion, see Shadish, Cook, & Campbell, 2002).

Hand-in-hand with RCT design is the notion of intent-to-treat (ITT). In an ITT model, randomized assignment alone determines whether cases will be treated as intervention or control, regardless of how much of the intervention they actually took in (i.e., exposure or dosage). Such a model is appropriate from a policy standpoint, providing information about the overall value of a program. For example, ITT field trials of national programs like Head Start can provide cost-benefit information about the value of this federal investment. However, the ITT model is biased against finding effects for a program with voluntary attendance—students who attend a program once are considered in the same category as children who attend every day for a semester, greatly diluting any program findings.

In order to carry out an RCT for an organized activity with voluntary attendance, a promising strategy is to take advantage of *oversubscription*. That is, if an organized activity has more students wishing to attend than it has participation slots, students may be randomized such that half are invited to attend and the other half serve as a comparison group. Analyses then compare across students who all presumably would have attended the activity given the opportunity, thus eliminating selection bias. However, even with oversubscription, RCTs for organized activities encounter selection problems, which I will illustrate with two examples.

Mathematica's national evaluation of 21st Century Community Learning

Programs (James-Burdumy et al., 2005) involved two designs: a randomized,

experimental design that utilized oversubscription for elementary school-level programs

and a quasi-experimental one that used propensity score matching for middle school-level

programs. The study found no effects of participation in 21CCLCs on grades, small

positive effects for kids feeling safe, and *negative* impact on some negative behaviors

(e.g., suspensions), particularly for boys (Dynarski et al., 2004). However, among the

numerous methodological critiques that have been raised regarding this study (Mahoney

& Zigler, 2005), one is of particular importance for the present discussion. Crossover

effects occurred such that in both samples (elementary and middle school), around 10%

of students assigned to the control group participated in the program. In sites where more

detailed participation data was available, 49% of students assigned to the treatment group

did not actually participate in 21CCLC activities, and 69% of students in the comparison

group participated in some sort of after-school program (Mahoney & Zigler, 2005).[7]

Although one may argue that this is simply a problem of execution of the study, the

problem is likely to be common: There are multiple options for participation, so a large

portion of youth who enroll and are initially identified to participate in a voluntary

organized activity are likely not to continue attending for the duration of a study.

Similarly, a rigorous randomized trial of afterschool programs for middle school

students (Gottfredson, Cross, Wilson, Rorie, & Connell, 2010) also found null effects for

academic and other outcomes. Although the researchers did not explicitly utilize

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[7] To the investigators' credit, they present both ITT impact estimates and estimates adjusted for control students who never attended (crossovers) and treatment students who did not attend. However, this does not consider amount of exposure beyond attending once, and a majority of the control group participants are attending organized activities.

oversubscription, it was implicitly assumed as students randomized into the treatment

group were only "invited to attend the after-school program". Indeed, 54% of the

treatment group withdrew from the after-school program before the end of the year.

Control group contamination was low (2%); however, students in the control group

reported participating in some type of after-school program at the same rate as those in

the treatment group (96% control vs. 95% treatment). Although this study provides some

evaluation evidence for the particular after-school program examined, the RCT provides

no information about the value of organized activity participation in comparison to non-

participation.

Both of these RCTs utilized oversubscription as randomization technique.

However, most organized activities are not oversubscribed but rather have just enough

members to operate. One reason for this is that organized activities may arise from and be

shaped by youth participants in such a way that oversubscription cannot be assumed. Two

examples will illustrate. First, a stand-alone teen center in a Midwestern town

consistently collects reports from participants that attending programs there changed their

lives in positive ways (e.g., Neutral Zone, 2011). Of the 20+ activities offered at the

center, the vast majority are open to any youth who wish to attend, with no

oversubscription (Roddy, L., personal communication).[8] In addition, the teen center

prides itself on being 'youth-driven', providing opportunities for youth to shape the

program. For example, a youth member of the center initiated and leads a break dance

program, guided by an adult advisor. This organized activity may provide powerful

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[8] Only one program has oversubscription: a diversity program in which high school age participants create
workshops to teach diversity topics to middle school students. Participants must apply and be selected to
attend (Weiss, J. K., personal communication, December 21, 2011).

experiences for youth participants; however, it could not be evaluated by an RCT as an appropriate comparison group is unavailable in this situation.

As a second example, a cross-sectional evaluation of the Beacon Community Centers in New York City recently found that sites in which youth gave high ratings to their exposure to "new and interesting experiences" were also those with more active youth councils (LaFleur, Russell, Low, & Romash, 2011, Sept).[9] Could an RCT determine if active youth councils provide benefits for youth participants? A reasonable design would be to randomize at the site-level and provide implementation supports to treatment sites, increasing the odds that they would operate active councils. Such a design would provide youth in the treatment condition access to active youth councils and deny such access to youth assigned to the control condition. However, by definition, youth in an active council are engaged in shaping the program to a greater degree. In addition, a youth council evolves over time—even one that was active and popular in previous years. Presumably, if youth find participation in the council valuable they may invite their friends to attend, increasing overall participation. These new participants would further shape the program. When the time came for post-evaluation, the group benefiting from the program may have little overlap with the group originally assessed.

To summarize the fourth proposition, although RCTs are appropriate in some cases, such as evaluation of specified programs, results of RCTs cannot be exclusively used to determine the effectiveness of organized activities. Many organized activities that

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[9] Beacon center youth councils are advisory groups in which youth provide input on planning community service projects, identifying activities to be offered at the Beacon, planning community events, and recruiting youth participants for programming and activities (p. 19).

may provide benefits to youth cannot be evaluated with an RCT. However, several alternatives, including quasi-experimental designs, are available for that purpose.

Conclusion and motivations for dissertation studies

In this chapter I have mounted four propositions regarding the nature of organized activities: (1) they are increasingly important, (2) they are more than additional schooling, (3) understanding motivation to attend is important, and (4) RCTs cannot evaluate the effectiveness of most programs. Although organized activities have been studied from a number of academic perspectives (public policy, social work, education, community psychology), organized activities are particularly appropriate for understanding youths' overall learning environment. As I have discussed, these are *learning* environments, where motivation is critical, and where contexts are more flexible than in school classrooms. Indeed, in addition to their value as study in their own right, organized activities may serve as laboratories in which to inform educational and psychological research focused on formal learning.

Fortunately, continued pursuit of understanding organized activities is already in progress, with increased research attention over the last decade. This attention can be traced to two important publications released at the beginning of the last decade. The first was Larson's 2000 article in *American Psychologist*, "Toward a Psychology of Positive Youth Development", mentioned previously. His argument that structured voluntary activities were the contexts best suited for the development of youth initiative marked a move away from thinking of organized activities as programs to address social problems, toward a conception of organized activities as important contexts for learning and development.

Second, in 2002, the National Research Council and Institutes of Medicine released a book-length report, summarizing available research relating to community programs (Eccles & Gootman, 2002). As well as a thorough review of literature and recommendations for the field, the report included a list of eight "features of positive developmental settings", that is widely used in policy and practice today.

Furthermore, the American Educational Research Association now has an active out-of-school time special interest group. The conferences for the Society for Research on Child Development and for the Society of Research on Adolescence each now include numerous papers and presentations on organized activity research. There are at least four major national practitioner conferences focused on out-of-school time;[10] increased infrastructure for training, technical assistance; and standards and quality improvement initiatives in operation. Although organized activities are still arguably on the periphery of mainstream educational psychology research, this will likely not be the case for much longer.

In subsequent chapters I will present results from two studies aimed at increasing understanding of organized activities. The first focuses on the psychological experience youth have during participation, and predictors for high cognitive engagement and feelings of belonging. As I have called for greater scientific understanding of motivation in organized activities, this first study sheds some light on this topic. Specifically I investigate three categories of predictors of positive involvement experience: previous exposure (intensity, duration, and breadth); instructional practices (welcoming, active

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[10] The 21st Century Community Learning Centers Summer Institute (*www.seiservices.com/21stcentury*); the Best Of Out-of-School Time (BOOST) conference (*www.boostconference.org*); Beyond School Hours, hosted by Foundations, Inc. (*www.foundationsinc.org*); and the National Afterschool Association Convention (*www.naaweb.org*).

skill-building, planning, choice, and leadership); and program type (academic, arts/enrichment, sports, free choice). The second study investigates youth leadership and governance practices, defined as involving youth in decisions about the operation of the program—a set of practices similar to those employed in Beacon Center youth councils previously discussed. Although the benefits of youth-in-governance practices have been extolled in practitioner literature (e.g., Bowie & Bronte-Tinkew, 2008, June), very few studies have addressed effects on participants. As true youth governance cannot be (or at least is not) carried out in schools, understanding its potential impact in youths' educational ecologies is important. In sum, these two studies will use quantitative methods to examine topics important for furthering the science of organized activities.

Table 1.1

Sample of Non-Academic Skills that may Develop in Organized Activities

Area	Program type	Studies	Findings
Social emotional			
Self perceptions, bonding to school, positive social behavior	Social Emotional Learning Programs	Durlak, Weissberg, & Pachan, 2010	Meta-analysis of evaluations with randomized design: Programs focused on enhancing personal and social skills produce gains in these areas, as well as in academics; programs with SAFE features produce greater gains.
Self and identity		Barber, Stone, & Eccles, 2005 Eccles & Barber, 1999	Youth participation in extracurricular activities is related to how youth perceive themselves, who their friends are, and to numerous concurrent and later outcomes.
Emotional development	Theater	Larson & Brown, 2007	Youth participants in a high school theater production reported an active process of learning about and developing strategies for managing emotions through repeated emotional episodes in the setting.
Analytical			
Initiative, Strategic thinking	Arts &leadership programs	Larson, 2000; Larson, Hansen, & Moneta, 2006; Larson & Angus, 2011	Several studies of arts & leadership programs for adolescents find that youth practice goal setting, problem solving, and time management. In addition, youth may learn strategic thinking, defined as 'dynamic systems reasoning to anticipate real-word scenarios and plan work'.
Civic			
Character and Citizenship	Boys & Girls Clubs of America (BGCA)	Arbreton et al., 2009	This longitudinal study found that students who participated in BGCA with greater frequency were more likely to report higher levels of community service involvement, increased integrity, and decreased shyness and aggression.
Holistic			
The 5Cs of competence, confidence, connection, character, compassion)	4H	Lerner et al., 2005	Numerous waves of the 4-H Study of Positive Youth Development have found evidence that participation in 4-H is related to the 5Cs and these in turn are related to 'youth contribution'.
Risk prevention			
Risk behaviors such as substance abuse	Various	e.g. Lerner et al., 2007	Various studies have found associations between participation in organized activities and reduced risk behaviors

Note: This is not a comprehensive review; but provides a glimpse at the breadth of important outcomes that may be obtained in high quality organized activities.

Figure 1.1

The LIFE Center Lifelong and Lifewide Learning Diagram
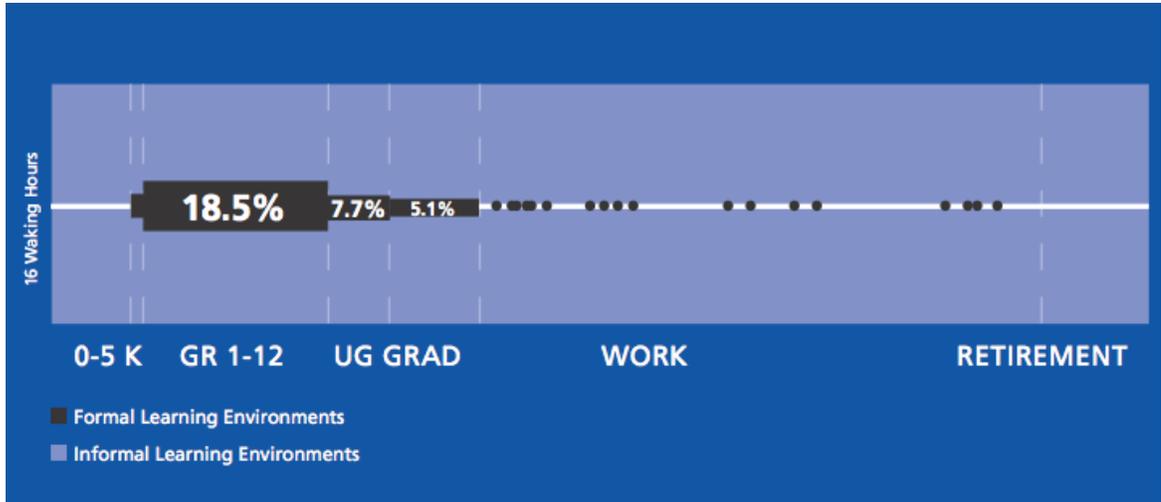
Estimated time spent in school and informal learning environments. Note: This diagram shows the relative percentage of their waking hours that people across the lifespan spend in formal educational environments and other activities. The calculations were made on the best available statistics for a whole year basis on how much time people at different points across the lifespan spend in formal instructional environments.

Image and legend reproduced with permission of The LIFE Center, through Creative Commons Share Alike License (Stevens, Bransford, & Stevens, 2005).

Figure 1.2

Motivational Model of Participation in Organized Activities
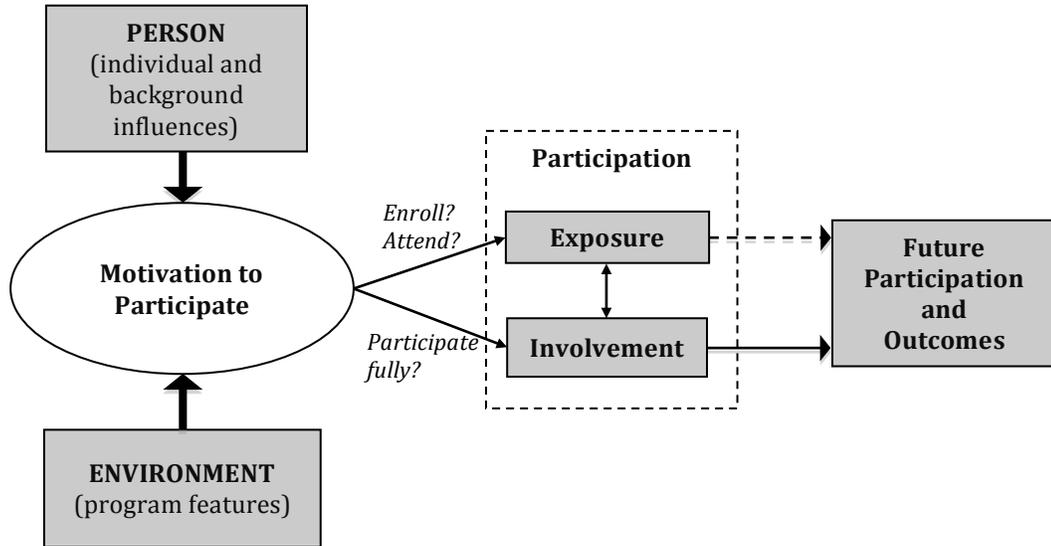
Chapter 2

Youth Experience of Program Involvement:

Belonging and Cognitive Engagement in Organized Activities

Participation in organized activities during out-of-school time (OST) is a common experience for youth in the U.S., with participation estimates as high as 90% for a given year (Duffett & Johnson, 2004; Mahoney, Harris, & Eccles, 2006). Organized activities take place through school-based extracurricular activities and 21st Century Community Learning Centers (U.S. Department of Education, 2011a); national organizations such as 4-H, Girl Scouts, Boy Scouts, Camp Fire, Boys & Girls Clubs, YMCA, and YWCA; and local community centers and faith-based youth organizations. Organized activities offer a vast diversity of content including academic enrichment, arts, sports, and service. Research has produced promising evidence that participation in OST can lead to a range of positive outcomes including academic achievement, reduced risk behaviors, increased civic engagement, and improved psychological functioning (for review, see Mahoney et al., 2005; Mahoney et al., 2009); however, findings from randomized studies are more mixed.

A recent randomized trial of afterschool programs for middle school students (Gottfredson et al., 2010; Mahoney et al., 2005) found no effects for academics or other outcomes, echoing the earlier findings of Mathematica's national evaluation of 21st

Century Community Learning Programs (James-Burdumy et al., 2005). Although such studies have been critiqued on methodological grounds (Mahoney et al., 2006), taken at face value the findings suggest an interpretation given by the researchers of the randomized trial: "We know that after-school programs can contribute to positive development but many programs have failed to do so" (Cross, Gottfredson, Wilson, Rorie, & Connell, 2010). This presents a question with important implications both for developmental science and policy: what characterizes successful organized activities compared to those that fail?

A promising area to investigate is youths' involvement experience; their in-the-moment psychological perceptions of the interactive climate and activities presented. This includes youths' emotional reactions to the social context, of which their sense of belonging is a key component; and youths' cognitive engagement, their mental involvement in individual and group tasks presented. Involvement experience is particularly important in learning contexts where attendance is not mandated, as negative experiences may result in reduced exposure, and without sufficient exposure no program can produce effects. The present study focuses on correlates to involvement experiences in three areas: program features, degrees of exposure, and individual factors.

A Model of Belonging, Cognitive Engagement, and Participation

Recent organized activity research suggests that participation in the voluntary context of organized activities is a multi-dimensional construct, involving related yet distinct factors associated with youths' depth and length of involvement (Mahoney, Vandell, Simpkins, & Zarrett, 2009). In a model presented by Bohnert et al. (2010), participation is conceptualized as consisting of intensity (frequency of participation in an

activity), duration (participation over time), breadth (participation across activities), and engagement (affective, behavioral, cognitive); antecedents to participation include child context (demographics, family, etc.) and program characteristics. Participation dimensions are related across time and participation leads to positive youth outcomes.

Figure 2.1 presents a conceptual model of participation based on and compatible with the model of Bohnert et al. (2010), but with a focus on youths' involvement experiences. Involvement experience includes youths' psychological reaction to and participation in program activities—both of which have both affective and cognitive aspects. Youth bring individual factors and outside influences (left box) such as demographics, family and peer factors, to the system. Program features (bottom box), including content offered and staff practices, have a direct impact on youth experience. Previous exposure (top box) includes intensity, duration, and breadth, and also affects youth experience.

The model depicts a youth-in-context, transactive system. Productive participation occurs when individual and contextual factors come together in a 'fit' of youth in context (cf., stage-environment fit in Eccles et al., 1993; person-environment interaction in Hunt, 1975) that includes a sense of identification or belongingness and a perception that tasks are cognitively at an appropriate challenge level. The model suggests that involvement experience is the primary route to both future participation and to outcomes (though this is not directly tested in this study). Belonging and cognitive engagement determine the effectiveness of the system; the more positive the participants' involvement experiences, the higher the chance that programs reach their goals. The rest of this introduction explores each aspect of this conceptual model.

Youth Involvement: Belonging and Cognitive Engagement

Belongingness[11], the idea that people want to feel like they fit in and matter in a group, has been studied as a basic human need (Baumeister & Leary, 1995; Deci & Ryan, 2000), as an aspect of affective engagement (Fredricks et al., 2011), and as an antecedent to motivation, effort, and achievement (Goodenow, 1993). Studies of school belonging have found positive associations with school performance (Juvonen, 2006). In Finn's Participation-Identification model (Finn, 1989), behavioral participation leads to successful performance, which leads to feelings of identification with school (belonging and valuing), which in turn affects behavioral participation in an iterative fashion.

Belongingness and related ideas such as "home away from home" have been promoted extensively for OST (4-H, 2010; Eccles & Gootman, 2002; Hirsch, 2005); however, studies assessing belongingness in organized activities are rare, with the notable exception of sport psychology research. Young peoples' motives to participate in sports have generally been categorized into the areas of competence, affiliation, fitness, and fun (Brustad, Babkes, & Smith, 2001). Belongingness in sports, along with autonomy and competence, has been found to predict motivation (Standage, Duda, & Ntoumanis, 2006); though perceived competence has been studied more often and consistently found to relate positively to motivation and continued sport participation (e.g., Weiss & Amorose, 2006).

Youth engagement, typically defined as cognitive, emotional, and behavioral involvement in learning tasks (Fredricks et al., 2010), has been called the "missing link"

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[11] Several terms are used in the literature including belongingness (Baumeister & Leary, 1995; Ford & Smith, 2007), sense of belonging (Eccles & Gootman, 2002; Maslow, 1943), and relatedness (Deci & Ryan, 2000).

in organized activity research (Bartko, 2005). Cognitive engagement, assessment of intellectual or cognitive involvement in OST activities and tasks, may be very important for continued participation and uptake of developmental benefits; however, cognitive engagement as investigated in schools does not directly translate to the OST context. Measures of cognitive engagement in school, a concept which overlaps with motivational goals and self-directed learning strategies, assess students' use of such strategies as rehearsal and summarizing of, and elaborating on learning materials (Fredricks, Blumenfeld, & Paris, 2004). In OST contexts, however, the goal of content mastery is usually not as salient as in schools.

Flow theory (Csikszentmihalyi & Larson, 1984; Larson, 2000) may provide an appropriate framework for conceptualizing cognitive engagement in OST settings. A flow experience, defined as a mental state involving total immersion in an activity, is believed to occur when challenges match skills (e.g.,Csikszentmihalyi, 1990; Rathunde & Csikszentmihalyi, 2006). In OST, youth perception of the 'right' level of challenge and concentration may be an important contributor to cognitive engagement (Shernoff & Vandell, 2007). This perception of 'good challenge' may represent intellectual fit in the youth-in-context system.

Participation

Many studies have suggested that 'more is better'; that is, with some caveats, greater degrees of participation in organized activities tend to be associated with a wide range of academic, developmental, and psychological benefits (for review, see Bohnert et al., 2010). Participation across multiple years is associated with greater benefits than a single year. For example, Fredericks and Eccles (2006) found that increased duration of

extracurricular involvement was positively associated with academic and psychological outcomes. Gardner, Roth, & Brooks-Gunn (2008) found that two years or more of participation produced greater educational and civic outcomes than one year. Greater breadth of participation also tends to be associated with benefits. For example, Fredericks & Eccles (2006), found positive associations with developmental outcomes for both a sum of activities, and measures of diversity of participation contexts. Rose-Krasonor, Busseri, Willoughby, & Chalmers (2006) found that greater breadth was associated with positive developmental outcomes, with effects tapering only after 5 or 6 different activities. Pattern centered work has revealed that different profiles of breadth are associated with different outcomes (Bartko, 2003; Peck, Roeser, Zarrett, & Eccles, 2008). Zarrett et al. (2009), for example, found that the benefits of sports depended on the additional activities in which youth participated (e.g., sports + religion, sports + multiple other activities, sports-only, non-sports).

A few caveats to the "more is better" rule should be mentioned. There is some evidence for a threshold at which greater participation does not yield more benefit; however, this threshold appears to be very high, with effects tapering only in small groups of the most intense participation (Cooper, Lindsay, Nye, & Greathouse, 1998; Mahoney et al., 2006; Rose-Krasnor et al., 2006). Roth et al. (2010) found that the duration-outcomes link may be qualified by age; specifically, increased duration is only associated with academic achievement gains for elementary age students.

Program Features: Group Characteristics, Staff Practices, and Content Types

Evidence suggests – not surprisingly – that programs with particular features produce better outcomes for youth participants (Durlak et al., 2010; Pierce, Bolt, & Vandell, 2010). Program features include a variety of aspects that generally relate to the design of the organized activity and affect the youth-in-context system.

Characteristics of the group, such as age level and range play a meaningful role in staff decisions about activities to offer; for example, a staff member would plan different activities for a group with all 10-year-olds, versus all 14-year-olds or a group that ranges from 8 to 14. Other characteristics of the group such as average socioeconomic status or heterogeneity of socioeconomic status may also affect the youth-in-context system.

Staff practices are complex, both to employ and assess. In OST, as in school research, every instructor must negotiate a tension between the idea of 'best practices'— the assumption of key staff instructional behaviors that are generally better for all kids in all situations (cf., Pianta & Hamre, 2009)—and the idea that staff practices should be catered to content and the youth present. Basic staff practices that support students cognition and socioemotional experience may be particularly important in organized activities with voluntary participation; however, school research suggests several arguments that apply to OST: different students have different needs, pedagogical content knowledge is important, and the complex practice of teaching cannot be simplified to a few prescriptions (Blumenfeld, Marx, & Harris, 2006; Brophy & Good, 1986).

Several staff practices have been shown to affect engagement and belonging in organized activities. Lerner (2004) and others have referred to the "big three" practices of

a) positive and sustained adult-youth relationships, b) skill-building activities, and c) participation and leadership opportunities. Regarding adult-youth relationships, welcoming atmosphere or teacher warmth has been linked to engagement (Finn & Zimmer, in press), and to positive behavioral, cognitive, and academic outcomes (Brophy, 2006; Goodenow, 1993; Ryan & Patrick, 2001; Wentzel, 1997). Active skill-building approaches that provide opportunities for children to engage with materials and ideas have been linked with both child motivation and increased transfer of knowledge (Bransford, Brown, & Cocking, 1999), and opportunities for skill-building is a key feature recommended by the National Research Council (Eccles & Gootman, 2002). Opportunities to practice leadership skills, such as leading a group of peers have been explored in school research (e.g., Mitra, 2006) and in a few OST studies (Luluquisen, Trinidad, & Ghosh, 2008; Zeldin, 2004) but much remains to be learned about this practice. Outside of the big three, "choice" as part of the planning process has been associated with motivational and other positive outcomes (Denton, 2005; Iyengar & Lepper, 1999), and engaging youth in planning as an instructional strategy has been found effective in reading programs (Mason, 2004) and in mathematics (Fuchs et al., 2003).

Although ways of categorizing organized activities in research have been varied (Hansen et al., 2010), four content areas offered in organized activities merit attention for the present study. First, academic enrichment is the first goal of many OST activities including 21st Century Community Learning Centers (U.S. Department of Education, 2011a), and OST programs in general have been increasingly pressured toward offering academic remediation and homework help (Halpern, 2003). Evidence suggests that

academic activities in non-school hours tend to garner negative reactions. Shernoff and Vandell (2007) found that students reported high engagement in sports and arts activities, and low engagement while completing homework. Similarly, Hansen and Larson (2007) found that students in academic clubs reported lower enjoyment than those in sports and arts activities. Second, arts and enrichment activities provide young people with access to content-based opportunities that are no longer commonly available in school and are hence more complementary to school learning rather than remedial. Third, the staff practices that affect youth involvement experiences may operate differently in sports contexts as goals for these activities may be different. For example, context factors such as the level of emphasis on cooperation among team members and what counts for success (Duda & Treasure, 2010) may have greater relevance in such offerings. Finally, free choice, i.e. *non*-organized activity, is common in many OST contexts, allowing kids to "hang out" after a structured day of school. Such activities are unlikely to be associated with high engagement.

This research

In the present study I investigate antecedents to involvement experience (specifically, belonging, and cognitive engagement) as depicted in Figure 2.1: demographic factors, previous exposure, staff practices, and program types. As described above, I conceptualize youth belonging and cognitive engagement as related but distinct aspects of involvement and therefore expect them to exhibit both comparable and distinct antecedents. I investigate whether the 'more is better' idea for participation applies to youth involvement experience. In two sets of analyses I address first a best practices

approach to instruction, then a subgroup analyses of how the effects of staff practices may vary across contexts.

Three hypotheses guide this analysis. First, extending from previous research, I hypothesize that increases in each element of exposure—intensity, duration, and breadth—will have positive associations with involvement. Second, I predict that cognitive engagement and belonging will exhibit differential relationships with staff practices. Specifically, staff practices associated with relationship building—namely welcoming and choice—should predict belonging; whereas the more cognitively-oriented practices of active skill-building, planning, and leadership should predict cognitive engagement. I predict linear relationships; however, in exploratory analysis I will consider non-linear aspects. Third, I hypothesize that staff practices, involvement experiences, and the interactions of practices and involvement will vary across types of content. Specifically, I predict that cognitive engagement and belonging will be higher in enrichment programs and lower in academic and free choice environments; and that relationships of staff practices and youth involvement will vary in free choice and sports versus academic and enrichment offerings.

Methods

Sample

The sample is from a single wave of the Youth Program Quality Intervention, a randomized field trial conducted by the David P. Weikart Center for Youth Program Quality (Smith et al., 2012).[12] Youth programs were recruited to this study through OST

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[12] The purpose of this multi-level intervention was to improve instructional quality through a sequence of making and implementing data-driven improvement plans, led by the program manager. However, the study produced a relatively large nested dataset, ideal for pursuing the questions of this paper.

networks that were interested in developing quality accountability and improvement policies and able to commit to study conditions (See Smith et al., 2012). This resulted in a diverse mix of sites. Observational assessment data were collected from 66 youth programs across four states. These programs included a mixture of community-based and school-based programs, funded by a number of different sources including fee-based, 21st Century Community Learning Centers, Department of Health and Human Service. I refer to the transactive, youth-in-context microsystem as the *program offering* (See Smith & Akiva, 2008). Program offerings (N=123) included academics, enrichment arts & crafts, social emotional learning, free choice, and organized sports. A total of 1160 surveys were administered to the youth who were present during these program offerings, with an average of 17.6 youth per offering (range 3-36, standard deviation [SD] =8.2). Youth demographic information was as follows: average age was 11.8 (SD=2.4); 52% female, 44% male (4% missing); 41% reported that their parents had college degrees (19% missing).[13]

Three-level Structure of Data

As the microsystem of youth program offerings is multilevel in nature, data reflect this reality. See Figure 2.2 for a graphic depiction. Youth experiences occur at level-1. The program offering, analogous to a classroom in school research, is conceptualized at level-2, and the physical site at level-3. Multiple youth participate in a program offering, and multiple program offerings may occur within a site. The conceptual model presented earlier (Figure 2.1) is multilevel as follows: dependent variables are at level-1 (cognitive engagement and belonging) with hypothesized

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[13] As the original study for which this data was collected was primarily focused on outcomes for instructors, available student demographic data is limited.

antecedents at level-1 (exposure) and level-2 (group characteristics and program features including staff practices and program types).

Measures at Level-1 (youth)

All level-1 measures come from a survey administered to youth who attended program offerings in which observations were collected. For descriptive information, see Table 2.1.

Dependent variables: Belonging and cognitive engagement. The youth survey contained nine involvement-related items; all using Likert response scale (1=strongly disagree; 4=strongly agree). I created the initial conceptual grouping shown in Table 2.2 and conducted an exploratory factor analysis (EFA) of these items. Based on recommendations from Preacher and MacCallum (2003), I conducted the EFA using Maximum Likelihood method. As the factors are expected theoretically to correlate, I used Oblimin rotation, which produces a non-orthognal, oblique solution. The factor loadings (Table 2.2) and scree plot (Figure 2.3) suggested that a single factor may adequately represent the data; however, conceptually these items reflect distinct psychological constructs.

I removed the interest and pride/importance items and conducted a confirmatory factor analysis using MPlus 6.1 with the remaining cognitive engagement and belonging items. A depiction of this analysis appears in Figure 2.4. The model allows engagement and belonging to correlate, and allows for two sets of error terms within the engagement factor to correlate. The model shows excellent fit with RMSEA of .008. I then computed two scales for dependent variables as follows. Belonging was a two-item scale: "I feel like I belong at this program", "I feel like I matter at this program") with scale reliability

of .74. Cognitive engagement uses a 3-item scale ("I was challenged in a good way", "I was using my skills", "I really had to concentrate", alpha = .74).

Exposure. *Intensity* is based on youth responses to a single question, "How often do you attend sessions like the one today in a typical month?" (1 = almost no sessions, 5 = almost every day). *Duration* is based on response to the question "How many years have you been coming to this program?" [14] The response scale ranged from 1-5 (1=this is my first year; 5=more than 4 years). Breadth was indicated by the dichotomous response to the question, "Do you participate in any other after-school activities?"

Demographics. Age and gender were self-reported as was parent education as proxy for socio-economic status assessed from the question: "What is the highest level of education for any parent or guardian living in your household?" (1=some high school, 2=high school diploma, 3=some college, 4=college degree).

Measures at Level-2 (program offering)

Group Characteristics. Level-1 demographics were aggregated in order to assess group characteristics. For age, mean and standard deviation were calculated in order to capture both average age and homogeneity of age. Average parent education was computed as the mean across program offerings and heterogeneity of parent education was computed as the standard deviation of parent education. Gender ratio was computed as a proportion of girls versus boys in each offering, centered so that -1 represents girls only, 0 represented perfect gender balance, and 1 represents boys only. In addition, for visual analyses, gender ratio was divided into the following categories: all girls (10% of offerings); more girls, defined as greater than 60% girls (24% of offerings); balanced,

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[14] The term "program" is confounded in the survey data; that is, it is not clear whether youth are referring to the site or the program offering.

defined as 40-60% girls; more boys (40% of offerings), defined as greater than 60% boys (20% of offerings); and all boys (5% of offerings).

Staff practices. Instructional and interactional practices were assessed using the observation-based Youth Program Quality Assessment (PQA; Smith & Hohmann, 2005). Completion of this instrument requires observation of an offering at an OST program for 1-2 hours by a trained observer. The data collector generates a running record of events that occur during the offering which then are used to evaluate the offering on items using a three-point scale (See Figure 2.2 for a sample item rubric). Data collectors achieved 80% perfect agreement to video gold standard scores at the item level (Smith et al., 2012)

Four of the five practice scales examined were derived from a confirmatory factor analysis of the Youth PQA (Smith, Peck, Denault, Blazevski, & Akiva, 2010). Figure 2.5 lists the items that make up these scales; each item is scored low, medium, or high, coded as 1, 2, or 3 respectively. Three of these scales (welcoming, planning, and leadership) exhibited skewness and/or kurtosis over 1.0, and in histograms appeared to approximate dichotomous distributions. Therefore, scales were dichotomized with 1 representing the presence of that practice and 0 representing its absence (see Table 2.1 for descriptive statistics).

Content types. Content of program offerings was coded through a multistep process: After a review of all descriptions a thematic coding scheme was developed and refined resulting in an exhaustive taxonomy (all content are only categorized under one rubric and all offerings are coded). The list was validated by technical assistance field coaches for 21st CCLC in Michigan who suggested minor final adjustments. The revised codes were used for the current study. The complete set of codes appears in Table 2. 2.

For analyses, these codes were collapsed into the four areas of interest: academics, enrichment, sports, and free choice yielding a 100% inter-rater reliability.

Data Analytic Strategy

      Missing data analysis and multiple imputation. Prior to conducting the substantive analysis I investigated the pattern of missingness in the data. The only situation in which *available case analysis* is not likely to produce bias is when data are missing completely at random (MCAR); that is, the reason for missingness is not related to any observed or unobserved parameters (Little & Rubin, 2002). In the more common alternative to MCAR, data are considered missing at random (MAR) if I allow for missingness to be related to observed (Schafer & Graham, 2002). To investigated this I constructed a missing variable matrix for level-1 data (see Table 2.4).[15] The pattern of missingness is close to what Little & Rubin (2002) term univariate nonresponse, with parent education exhibiting 20% missingness and all other variables missing less than 5%. With belonging as dependent variable, gender (.01 observed, -.34 missing, $t = 2.16$, $p = .03$) and breadth (.00 observed, -.36 missing, $t = 2.0$, $p = .05$) were significantly associated with missing values.

      Based on recommendations by Rubin (1986), five imputed datasets were drawn using Amelia II software for missing data (Honaker, King, & Blackwell, 2010) using bootstrap-based expectancy maximation method, which has been shown to produce virtually equivalent results to the much more computation-heavy imputation-posterior (i.e., Markov chain Monte Carlo) approach (Honaker et al., 2010). A regression-based

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15 Level-2 variables exhibit no missing data (observers were required to score every item). At level-1, the original data included 1176 youth and 151 observed offerings; however, removing offering data for which the re were no youth surveys reduces this sample to 1176 youth in 126 offerings.

algorithm determines replacement values as draws from distributions, and variability includes within-imputation variance and between-imputation variance. I specified dichotomous variables and treated all others as continuous. I used all available data to create the imputed datasets. In addition to study variables, this included structural (network, state, site, intervention status) measures, a few motivational items, and several yes/no questions about emotional state (e.g., are you hungry? are you tired?). This resulted in five complete datasets to be used for analyses.

Analyses. Multilevel modeling was performed using HLM 6.08 (Raudenbush, Bryk, & Congdon, 2009) with imputed data. Effects of participation and staff practices on youth cognitive engagement and belonging were also inspected using bivariate correlations prior to the more complex hierarchical linear modeling. HLM models were run and are presented here in a sequence that allows us to analyze the impact of including higher level variables on the effects of lower level effect. Starting with the *Null Model* without predictors that determines the distribution of variance across levels, the *Demographic Model* includes the demographic variables. The next model, *Exposure Model*, tests the effects of participation on the two outcome variables when demographics are held constant. Finally, the *Practices Model* assesses the individual contributions of particular practices to predictions of youth cognitive engagement and belonging. Although including multiple instructional practice scales in single regression models introduces theoretical and methodological limitations (described more fully in the discussion), this allows us to see the unique contribution of each practice. To counter the limitations of the approach, I also examined zero-order regressions for each variable used—that is, the effect of each variable with no other variables in the model.

A second set of analyses, these exploratory, was aimed at understanding the program offerings across different contextual groups. Although sample size limits my ability to draw strong inferences from these subgroup analyses, I specifically looked at age, content areas, and gender balance of program offerings. I addressed two aspects of these grouping variables—how cognitive engagement and belonging vary across the groups, and how instructional-involvement relationships vary across groups—primarily graphically and through ordinary least squared analyses.

Results

Bivariate Correlations and Baseline Multilevel Models

Table 2.5 provides bivariate correlations. Belonging and cognitive engagement correlate at $r = .50$ and all other correlations are at $r = .21$ or lower. Of note, both belonging and cognitive engagement correlate with gender such that girls rate both higher than boys. Duration has negative correlations with most variables including age and the dependent variables. Across staff practices at level-2, planning correlates with active skill-building ($r = .45$) and choice ($r = .34$). Planning also correlates with average age ($r = .33$), suggesting that planning practices may be more common with older youth. Average age also relates to cognitive engagement ($r = .40$) such that programs with higher overall age tend to rate cognitive engagement higher. Crossing staff practices with my dependent variables, welcoming correlates with belonging ($r = .27$), and both active skill-building ($r = .30$) and planning ($r = .25$) correlate significantly with cognitive engagement.

Table 2.6 presents a series of HLM models with belonging as the dependent variable and Table 2.7 presents these models with cognitive engagement as dependent

variable. Each dependent variable displays considerably more variance between sites than between offerings: for belonging, variance was 86% between youth, 6% between offerings, and 8% between sites; for cognitive engagement, variance was 76% between youth, 8% between offerings, and 16% between sites.

The Demographic Model included age (level-1, level-2 mean), gender (level-1), and parent education (level-1, level-2 mean) for both dependent variables. Age did not appear to have an effect on belonging at the individual level or at the offering level. For cognitive engagement, however, I found a significant positive effect for average age at level-2, suggesting that for every 1-year increase in the average age of youth in an offering, cognitive engagement is likely to increase by about a tenth of a standard deviation. Gender has a significant effect on both outcomes, with females showing, on average, a quarter SD higher belonging and cognitive engagement than males. Parent education shows no effects for belonging; however, mean parent education is related to cognitive engagement such that a one point increase in the average parent education in an offering (e.g., from 'some high school' to 'high school degree') is associated with a fifth SD decrease in cognitive engagement.

Exposure and Staff Practices

As predicted, intensity (frequency of attendance) exhibits a positive effect on both belonging and cognitive engagement (see Tables 6 and 7)—youth who attend more often are more likely to feel like they belong and to experience cognitive engagement. This effect is slightly larger for belonging. However attendance duration is *negatively* associated with both belonging and cognitive engagement; for every year of reported attendance, youth are likely to report .04 SD lower belonging and .07 SD lower cognitive

engagement. The zero-order coefficients do not differ substantially from any of the coefficients in the exposure model, suggesting that there are no statistical suppression effects present.

In the Staff Practices Model for belonging (Table 2.6, 3rd column), welcoming practice has significant, positive correlations: when staff members are welcoming, youth belonging tends to be more than a quarter SD higher than when they are not. Active skill-building predicts cognitive engagement (Table 2.5) such that a one-level increase in active skill-building (e.g., from medium to high) is associated with about a quarter SD increase in cognitive engagement. In exploratory investigation for nonlinear relationships, the active skill-building by cognitive engagement correlation appeared to be curvilinear (see Figure 2.7). I therefore added a quadratic component to the model by standardizing active skill-building and squaring it. A revised cognitive engagement practice model is presented in the fourth column of Table 2.5. Both active skill-building and active skill-building squared show significant coefficients, suggesting that after the linear relationship is controlled for, a curvilinear function remains such that the offerings with the lowest active skill-building have slightly higher cognitive engagement than those with medium-level active skill-building.

Exploratory Analysis of Heterogeneity of Program Offerings

For each variable in this section, I first present results on how cognitive engagement and belonging were found to vary across subgroups, and then examine practice-involvement relationships across groups.

Content. Table 2.8 displays the four content types with information about cognitive engagement, belonging, and the three staff practices with the strongest

correlations with involvement in the multilevel models. I tested for significant statistical differences across content types in the areas of age, involvement measures, and the three staff practice measures. Omnibus tests indicated that significant differences occurred across content areas for belonging (F [3,119] = 2.76, p = .05), cognitive engagement (F[3,119] = 3.74, p = .01), and the practice of active skill-building (F[3,119] = 8.19, p = .00). I conducted three contrast tests based on hypothesized differences in academic versus enrichment, and in free choice versus other types. The first contrast (acadmic ves. Enrichment) yielded significant results in all three areas: belonging (t[119] = 2.64, p = .01), cognitive engagement (t[119] = 2.43, p = .02), and prevalence of active skill-building practices were significantly higher in arts/enrichment offerings than in academic ones (t[119] = 2.00, p = .05). Free choice offerings exhibited significantly lower cognitive engagement (t[119] = 2.80, p = .01) and active skill-building (t[119] = 4.72, p = .00) than enrichment offerings. Free choice offerings also exhibited significantly lower cognitive engagement (t[119] = 1.96, p = .05) and active skill-building (t[119] = 3.36, p = .001) in comparison to the other three content types.

Graphic depictions of practice-involvement relationships by content areas appear in Figure 2.8. Active skill-building has a generally positive linear relationship with cognitive engagement in the art & enrichment category (60% of offerings). This relationship appears curvilinear for academics and sports; suggesting that in these offerings medium-level active skill-building does not correlate with gains for cognitive engagement but high-level practice does. In the free choice offerings, as predicted, the positive active skill-building by cognitive engagement relationship does not hold. In the belonging figure (bottom), academics, arts/enrichment, and free choice offerings show

consistent positive associations with welcoming practice; however, the lines slope

downward for sports offerings. This suggests that the presence of the welcoming and

leadership practices assessed is associated with *decreased* belonging in sports activities. I

tested these three interactions (i.e., skill-building x free choice; welcoming x sports;

leadership x sports) with multilevel models (see Table 2.9). Two interactions were

significant: skill-building by free choice, and welcoming by sports. However, these

results should be treated with caution as they derive from exploratory analyses and due to

the small number of sports and free choice offerings in the sample.

Age. In the multilevel findings, mean age of youth in offerings had a positive,

significant, linear relationship with cognitive engagement; and no significant relationship

with belonging. In order to examine this in more depth, Table 2.10 presents age in

categories by engagement and belonging in two ways: at level-1 (ignoring sites and

offerings), and by offering-level averages. Belonging appears to generally increase with

age with the exception of youth younger than 10, who have higher belonging than the 10-

12 group—this departure from linearity may explain the lack of significant positive

finding in HLM. At level-2 engagement follows age in an apparently linear fashion

(congruent with HLM findings); although at level-1 no noticeable pattern is apparent.

Practice-involvement relationships across age groups are depicted in Figure 2.9.

Main effects are noticeable in every chart; specifically, the oldest age group (average

ages 14-16) has considerably higher engagement and belonging. In skill-building by

engagement (first chart), for the 8-10 and the 12-14 groups engagement appears to have a

negative relationship with the lower levels of skill-building; that is, when skill-building

practices are in the lower ranges, small improvements may not correspond with increased

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engagement in those age groups; however, the highest level of skill-building is associated with high engagement across every age group. The welcoming-belonging slope appears steepest for the oldest age group and the leadership-belonging slope appears steepest for the youngest group.

Gender balance. In multilevel models, gender at level-1 was highly related to youth engagement and belonging; in both cases it was a quarter SD higher for girls than for boys. Table 2.11 presents involvement scores at level-2, with gender ratio groups categorized. These averages suggest that single-gender offerings tend to have higher belonging and engagement, and that gender-balanced offerings have the lowest. Practice-involvement relationships across these groups are shown in Figure 2.8. In skill-building by cognitive engagement, only the 'more boys' group deviates from a positive linear trend. In welcoming by cognitive engagement, the all boys group appears to have the highest positive association. The all boys group also deviates from the other groups in both belonging charts; however, caution should be taken when interpreting these effects as only 6 all-boys offerings were present in the dataset.

Discussion

In this study, I investigated youth involvement experiences—specifically, belonging and cognitive engagement—in relation to exposure to and features of organized activities. Overall, there was strong empirical support for the theoretical model and the hypotheses derived from it. Increased intensity was associated with increased belonging and cognitive engagement. As hypothesized, effects were different for program types and staff practices on cognitive engagement and belonging. Active skill-building (but not welcoming) predicted cognitive engagement; welcoming (but not active skill-

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building) predicted belonging. Contrary to the predictions of the model, provision of choice, planning, or leadership opportunities did not exhibit statistically significant relationship with cognitive engagement or belonging. In exploratory analyses, arts/enrichment offerings were generally positively associated with engagement and belonging, academic offerings and free choice were negatively associated, and some instruction by content area interactions were identified. Similarly, interactions were found across age and across different configurations of gender balance within program offerings.

From a policy or practitioner perspective, relationships between program features and cognitive engagement suggest relatively straightforward explanations. Although I cannot determine causal direction from this cross-sectional analysis, the correlation of welcoming practices with youth sense of belonging is of note for its simplicity. The welcoming practices scale is a basic measure of staff warmth behaviors such as smiling or using friendly words and was positively skewed such that when dichotomized only a quarter of programs were coded as not welcoming. Indeed, the most accurate framing of the results may be that in the quarter of programs that were not scored as welcoming, youths' sense of belonging averaged a quarter SD lower than in welcoming programs. These easy-to-employ practices that relate to youth belonging may make a difference in present and future participation. Note that the ways youth perceive welcoming practices may also include a cultural component; so this finding may vary across samples.

Active skill-building practices show a positive association with cognitive engagement, suggesting that youth were inclined to rate their cognitive engagement higher when active skill-building opportunities were present, and when staff were

actively supportive in relation to guiding youth through those opportunities. This relationship; however, is curvilinear such that cognitive engagement is lowest in the offerings that have mid-level active skill-building. One possible explanation is that in such offerings, staff *attempt* to support active skill-building but these attempts are not sufficient to promote cognitive engagement. Indeed, these mid-level attempts may be slightly worse for cognitive engagement than when staff do not even attempt. If this interpretation is correct then only the highest quality active skill-building performances lead to cognitive engagement.

The relationships of content areas to cognitive engagement relate to this finding. Both academic and enrichment categories represent learning environments in which content is explored or delivered, unlike free choice. However, the academic offerings are more obviously school-like: homework, tutoring, academic remediation like test prep, and academic content like math, language arts, and science. Arts and enrichment activities included content less common in school academic settings such as cooking, newsletter writing, purposeful games, health, & nutrition. Put simply, the most and least liked content areas both involved learning, and youth were less likely to have positive engagement toward the content they were likely to perceive as more school-like. This is in line with the experience sampling findings of Shernoff & Vandell (2007) of low engagement when working on homework and high engagement in arts and enrichment.

My findings suggest that relationships between staff practices and youth involvement experiences are not homogeneous across content areas or group characteristics. As predicted, active skill-building practices do not predict cognitive engagement in free choice environments. Likely in such environments—commonly

called 'drop-in' in OST programs—cognitive engagement is determined more by youth activity choices than staff practices. The finding that welcoming practices are negatively associated with belonging in sports contexts is interesting. A potential explanation is that in sport contexts, the staff welcoming behaviors assessed (smiling, friendly gestures) are not critical factors in determining whether youth feel like they belong. Physical skills and efficacy for sports have been found to contribute to motivation in sport settings (Duda & Treasure, 2010), as well as coaching factors such as focus on active skill-building versus competition (Standage & Vallerand, 2007).

Findings related to exposure provide a glimpse into the complexity of youth involvement experience. As predicted, increased intensity appears to correlate with increased cognitive engagement and belonging. This increased dosage in the short term is positively associated with youths' psychological experience of the program, suggesting multiple potential causal interpretations: perhaps as youth attend more frequently, they are more likely to find activities engaging and supportive of belonging; or perhaps youth who are more likely to be engaged attend more frequently. An iterative process may occur over time: the more youth attend the more they engage, and the more they engage the more they attend. The negative coefficients for duration with cognitive engagement were quite small and unexpected; however they suggest a few possible interpretations. Perhaps as youth attend over time and develop more expertise their cognitive engagement lowers; or it is possible that youth who attend for multiple years get used to a certain level of cognitive engagement and therefore report lower cognitive engagement on the day of the survey.

As these analyses are non-experimental, I cannot determine the causal direction of the correlations. Although my hypothesis that higher quality staff practices lead to better youth involvement experience is potentially true, a counter-hypothesis, that youth more likely to exhibit high involvement self-select high quality offerings is also possible. In reality, a combination of these two causal paths may be occurring. That is, in the dynamic transactions of youth program offerings, it is the interplay of youth and staff practice that define the youth-in-context system and determine outcomes. For example, a youth who tends to be highly engaged may contribute her positive attitude to a program offering, which makes it more likely for staff to engage in high quality practices, and raises overall involvement of the group.

Although the best-practice approach employed in the practice models here provides an easy-to-understand method for examining the unique contributions of particular practices, youth do not experience staff practices in isolation. The models show the unique variance that each scale explains, when it may be that practices such as active skill-building and planning work together to promote motivation and learning. In support of such a notion, in previous analyses using the Youth PQA, the total score (a composite of 41 items in 13 scales in 3 domains suggested by the instrument developers [Smith & Hohmann, 2005]) was found to predict a composite of youth involvement experience, across four samples (Akiva, Sugar, Smith, & Brummet, 2011). Also, some attempts have been made to model practice sets defined as patterns of staff practices (e.g., staff-centered, positive youth development; Smith et al., 2010). Future studies may examine practices and collections of practices in additional ways to further explore the relationships of staff practices and the proximal experiences of youth.

The group characteristics examined in exploratory analysis appeared to demonstrate influence both in terms of main effects on cognitive engagement and belonging (e.g., older youth rated their involvement higher), as well as interactions with staff practices. Although these exploratory analyses didn't identify any obvious trends in terms of how staff practices may differ across age ranges and gender makeup, in graphic depictions these relationships appear to vary across categories. The important of gender makeup may be particularly important to examine in future studies, as practice-involvement slopes looks different depending on heterogeneity of gender in each program offering. It may be, for example, that the impact of skill-building on cognitive engagement is stronger in groups with more homogeneous gender makeup.

Youth program offerings, like classrooms, are complex systems. Initial multilevel models revealed that a large majority of both belonging and cognitive engagement scores varied individually, at level-1. Further, there is no reason to believe that causal pathways are homogeneous across participants; that is, individual youth may experience staff practices differently; staff welcoming practices may relate strongly to one youth's sense of belonging; another youth may not even notice such practices or may not ascribe importance to belonging (cf., variations in need to belong: Leary, Kelly, Cottrell, & Schreindorfer, 2007). In short, it is difficult to design programs that fit well with most participants.

These analyses shed light on the nature of participants' phenomenological, psychological experience in organized activities. The idea of cognitive engagement operationalized as perceptions of appropriate challenge level is not common in school engagement measures; however, it aligns with flow theory and with Vygotsky's concept

of the zone of proximal development, a situation in which a youth is being pushed just

beyond what they already know; an engaging zone in which learning occurs. Involvement

experience is clearly multi-dimensional and multiple contextual factors affect youths'

experience in varied ways.

Table 2.1

Descriptive Information

Continuous Variables	Level	Items	Range	M	SD	alpha
Belonging	1	2	1-4	3.14	.70	.74
Cognitive engagement	1	3	1-4	2.89	.75	.74
Age	1	1	6-19	11.84	2.37	n/a
Parent education	1	1	0-5	3.12	1.06	n/a
Intensity	1	1	1-5	3.74	1.39	n/a
Duration	1	1	1-5	2.48	1.52	n/a
Age mean	2	1	8-17	11.90	1.92	n/a
Age SD	2	1	0-5	1.25	1.05	n/a
Parent ed mean	2	1	1.2-4.3	3.16	.60	n/a
Parent ed SD	2	1	0-1.8	.95	.39	n/a
Practice: Active skill-building	2	5	1.4-5	3.92	.88	.71
Practice: Choice	2	2	1-5	3.50	1.46	.65
Practice: Welcoming[a]	2	3	2.3-5	4.70	.62	.75
Practice: Planning[a]	2	2	1-5	2.03	1.40	.92
Practice: Leadership[a]	2	1	1-5	1.74	1.26	n/a

Dichotomous Variables	Level	Distribution
Gender	1	52% female, 44% male, 4% missing
Breadth	1	65% attend other, 32% do not, 3% missing
Practice: Welcoming	2	75% present, 24% not present
Practice: Planning	2	34% present, 66% not present
Practice: Leadership	2	29% present, 70% not present

[a] The three practices of Welcoming, Planning, and Leadership were dichotomized for analysis; however, descriptive information for these variables prior to dichotomization is presented in the top section of the table.

Table 2.2

Factor Analysis with Initial Conceptual Grouping for Engagement-Related Items

Grouped items	Factor			
	1	2	3	4
Interest				
1. I was interested in what we did.	.66	-.49	-.57	.64
Good challenge (cognitive engagement)				
2. I was challenged in a good way.	.68	-.44	-.99	-.32
3. I really had to concentrate to complete the activities.	.68	-.31	-.50	-.28
4. I was using my skills.	.71	-.40	-.47	.35
Pride/importance				
5. I felt a sense of pride about what I had accomplished.	.73	-.43	-.54	.40
6. The activities were important to me.	.77	-.42	-.54	.56
7. I got better at things I care about.	.42	-.25	-.30	.39
Belonging				
8. I feel like I belong at this program.	.51	-.61	-.46	.54
9. I feel like I matter at this program.	.49	-.99	-.43	.30
Variance explained by each factor	37%	7%	14%	2%

Note: Structure matrix from Maximum Likelihood factor analysis using Oblimin rotation.

Table 2.3

Detailed Content of Program Offerings

Content Area	#	%	Example topics
Academics			
Homework help	5	4.1	Homework club, Academic hour
STEM	11	8.9	Science, Math jeopardy
English Language Arts	8	6.5	Language & logic, Reading is fun
Civics	3	2.4	State posters
Enrichment: Arts			
Visual arts	7	5.7	Mural painting, Drawing class
Crafts	13	10.6	Animal marionettes, Piñata making
Sculpture	2	1.6	Clay pots
Music	1	.8	Beatology
Drama	3	2.4	Spring play
Dance	3	2.4	Hip Hop dance team practice
Enrichment: Social Emotional			
Character education	3	2.4	Creative writing: You in 20 years
Leadership	13	10.6	Building leadership together
Pregnancy prevention	2	1.6	Sexuality education
Conflict resolution	1	.8	How to handle good and bad conflicts
Multicultural	3	2.4	Japanese culture
Enrichment: Various content			
Newsletter	3	2.4	Program newsletter
Cooking	4	3.3	Popovers, crepes, pizza
Computers/technology	1	.8	The technology we need
Health	5	4.1	Nutrition, Fitness, Appropriate foods
Making	4	3.3	Creating board games, Video production
Service learning	2	1.6	Trash clean up in park
Mixed enrichment	3	2.4	Homework and kite-making
Sports			
Structured athletic sports	8	6.5	Soccer, Basketball, Baseball, Field games
Free choice			
Free choice	10	8.1	Free play in gym
Open board games	4	3.3	Youth play various board games
Open computer time	1	.8	Youth play games or browse Internet

Table 2.4

Missingness for Level-1 Measures

Measure	n (N=1176)	# (%) missing	Deviation from MCAR
Age	1159	17 (1.4%)	
Gender	1132	44 (3.7%)	**
Parent education	954	222 (18.9%)	
Duration	1148	28 (2.4%)	
Frequency	1126	50 (4.3%)	
Breadth	1141	35 (3%)	**
Belonging	1158	18 (1.5%)	
Engagement	1171	5 (.4%)	

Table 2.5

Bivariate Correlations

Level-1	2	3	4	5	6	7	8
1. Belonging	.50**	.07*	-.15**	.02	.12**	-.10**	.04
2. Engagement		.11**	-.14**	-.07*	.10**	-.21**	-.01
3. Age			.09**	-.21**	.00	-.21**	-.07*
4. Gender (d)				-.03	-.02	-.02	.06*
5. Parent education					-.02	.16**	.11**
6. Intensity						.00	.02
7. Duration							.14**
8. Breadth (d)							

Level-2	b	c	d	e	f	g	h	i
a. Welcoming (d)	.21*	.09	.08	.21*	.01	-.06	.27**	.11
b. Skill-building		.23*	.45**	.08	.18*	-.16	.07	.30**
c. Choice			.34**	.09	-.01	.19*	-.02	.00
d. Planning (d)				.19*	.33**	-.16	.10	.25**
e. Leadership (d)					.04	.03	.11	.11
f. Age mean						-.43**	.24**	.40**
g. Parent ed mean							-.14	-.34*
h. Belonging mean								.61**
i. Engagement mean								

+ p < .10; * p < .05; ** p < .01; *** p < .001. Correlations for level-1 computed using a single imputed dataset.

Table 2.6

Three-level Models for Belonging

Fixed Effect	Demog.	Exposure	Practices	Zero-order[16]
Demographics				
Age	-.01	.00	.00	.01
Gender (d)	-.27***	-.27***	-.27***	-.27***
Parent ed	.02	.02	.02	.02
Context (level-2)				
Age mean	.06	.04	.04	.05*
Age SD	-.04	-.04	-.04	-.04
Parent ed mean	-.06	-.05	-.02	-.11
Parent ed SD	.05	.05	.05	.05
Exposure (level-1)				
Intensity		.10**	.09**	.10***
Duration		-.04+	-.05*	-.04
Breadth (d)		.12+	.12+	.11
Practices (level-2)				
Welcoming (d)			.28***	.29***
Skill building			.01	.02
Planning (d)			.06	.09
Choice			-.01	-.01
Leadership (d)			.12	.20*
Model				
Variance explained				
Level-1	2.0%	4.6%	4.5%	
Level-2	<0%[17]	1.5%	19.1%	
Level-3	33.5%	19.3%	37.1%	
Chi-square change[18]				
Change in df	5	3	5	
Level-1 & 2	-4	-1	7	
Level-3	19**	-9*	5	

+ p < .10; * p < .05; ** p < .01; *** p < .001; (d) = dichotomous

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[16] Zero-order relationships with dependent variable computed in HLM models with each item as predictor with no other predictor variables in the model.

[17] In multi-level model, variance explained may be less than 0% at one level due to best iteration in restricted maximum likelihood for all levels.

[18] Chi-square change computed in comparison to previous model (i.e., model to left); exposure model compared to model with covariates only as predictors (not pictured).

Table 2.7

Three-level Models for Engagement

Fixed Effect	Demog.	Exposure	Practices	Practices (revised)	Zero-order[19]
Demographics (level-1)					
Age	-.03+	-.02	-.02	-.02	-.01
Gender (d)	-.24***	-.24***	-.24***	-.25***	-.23***
Parent ed	.02	.02	.02	.03	.01
Group chara. (level-2)					
Age mean	.11***	.09**	.09*	.09**	.10***
Age SD	-.02	-.02	-.02	-.04	-.02
Parent ed mean	-.19*	-.17+	-.14	-.19*	-.26***
Parent ed SD	.05	.05	.05	.02	.05
Exposure (level-1)					
Intensity		.06*	.06**	.07**	.08**
Duration		-.07**	-.07**	-.06*	-.06*
Breadth (d)		.09	.09	.08	.07
Practices (level-2)					
Welcoming (d)			.08	.13	.24**
Active skill-building			.26*	.31**	.28**
Active skill-building[2]				.35**	
Planning (d)			-.04	-.05	.12
Choice			-.01	.00	-.01
Leadership (d)			.13	.13	.14
Model					
Variance explained					
Level-1		3.6%	3.5%		
Level-2		<0%[20]	24.5%		
Level-3		46.7%	43.2%		
Chi-square change[21]					
Change in df	5	3	5		
Level-1 & 2	-5	2	5		
Level-3	49***	3	3		

+ p < .10; * p < .05; ** p < .01; *** p < .001; (d) = dichotomous

[19] Zero-order relationships with dependent variable computed in HLM models with each item as predictor with no other predictor variables in the model.
[20] In multi-level model, variance explained may be less than 0% at one level due to best iteration in restricted maximum likelihood for all levels.
[21] Chi-square change computed in comparison to previous model (i.e., model to left); exposure model compared to model with covariates only as predictors (not pictured).

Table 2.8

Average Age, Outcomes, and Practices (All But Age Standardized)

by General Content areas

Content Area	Involvement		Staff Practices		
				Active skill-	
	Belong	Cog. Engage	Welcoming	building	Leadership
	(SD)	(SD)	(SD)	(SD)	(SD)
Academics	-.16	-.14	-.24	-.14	.00
(26 offerings; 21%)	(.44)	(.60)	(1.10)	(1.07)	(1.02)
Arts/Enrichment	.14	.18	.07	.28	-.09
(74 offerings; 60%)	(.50)	(.56)	(.96)	(.84)	(.95)
Sports	.10	.10	.12	-.32	.65
(9 offerings; 7%)	(.44)	(.61)	(.98)	(1.11)	(1.18)
Free choice	-.10	-.29	-.02	-.99	.04
(14 offerings; 11%)	(.58)	(.56)	(1.04)	(.95)	(1.05)

Table 2.9

Content by Practice Interactions for Belonging in Three Models

Fixed Effect	Model 1	Model 2	Model 3
Covariates			
Age	-.03+	.00	-.00
Age mean	.12***	.06	.06
Gender (d)	-.21**	-.26***	-.26***
Parent education	.01	.02	.02
Intensity	.07**	.09***	.09***
Duration	-.06*	-.04+	-.04+
Breadth (d)	.09	.12+	.13*
Model-1			
Skill-building	.11*		
Free choice (d)	.68		
Skill-building x free choice	-.30*		
Model-2			
Welcoming (d)		.31***	
Sports (d)		.49***	
Welcoming x sports (d)		-.43*	
Model-1			
Leadership (d)			.20*
Sports (d)			.31+
Leadership x sports (d)			-.33

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 2.10

Engagement and Belonging by Age

Age range	% of youth (N=1176)	Belonging (SD)	Cog. Engagement (SD)
Youth-level			
<10	12	.11 (.97)	.08 (1.00)
10-12	42	-.14 (1.03)	.22 (1.05)
12-14	25	.08 (.97)	.17 (.96)
14+	21	.13 (.97)	.18 (.88)

Offering-level	% of offerings (N=123)	Belonging mean (SD)	Cog. Engagement mean (SD)
8-10	16	.03 (.37)	-.18 (.48)
10-12	39	-.11 (.53)	-.17 (.65)
12-14	31	.12 (.47)	.24 (.47)
14-16	14	.33 (.50)	.52 (.59)

Table 2.11

Engagement and Belonging by Gender Balance

| Gender Balance	% of offerings (N=123)	Belonging mean (SD)	Cog. Engagement mean (SD)
All girls	10	.37 (.37)	.59 (.31)
More girls (60-99%)	24	.05 (.34)	.10 (.44)
Balanced (40-60%)	40	-.04 (.54)	-.14 (.65)
More boys (60-99%)	20	-.01 (.55)	.04 (.57)
All boys	5	.23 (.68)	.28 (.61)

Figure 2.1

Conceptual Model of Participation in Organized Activities
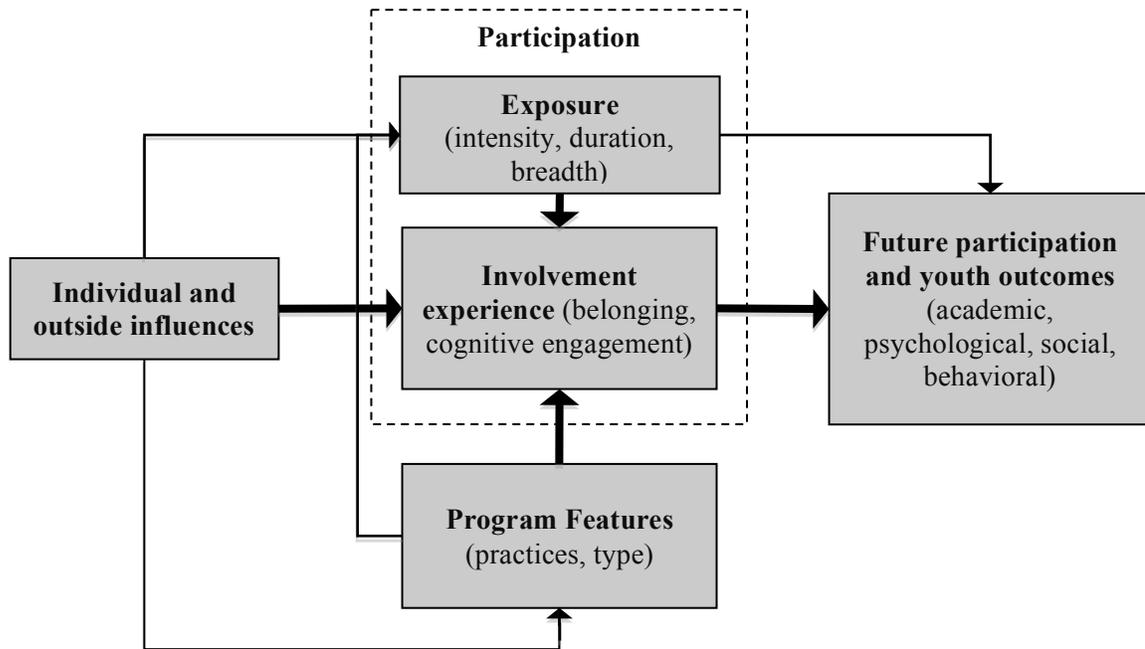
Figure 2.2

Multilevel Conceptualization of Youth Programs

Level-3: Site

Level-2: Program
        offering

Level-1: Youth
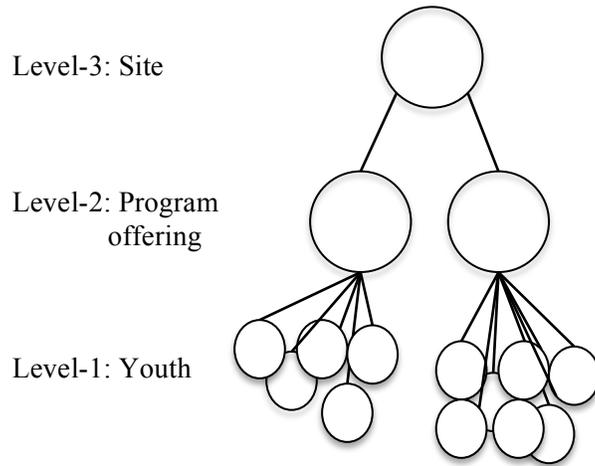
Figure 2.3

*Scree Plot for Exploratory Factor Analysis of Nine Involvement-Related Items*
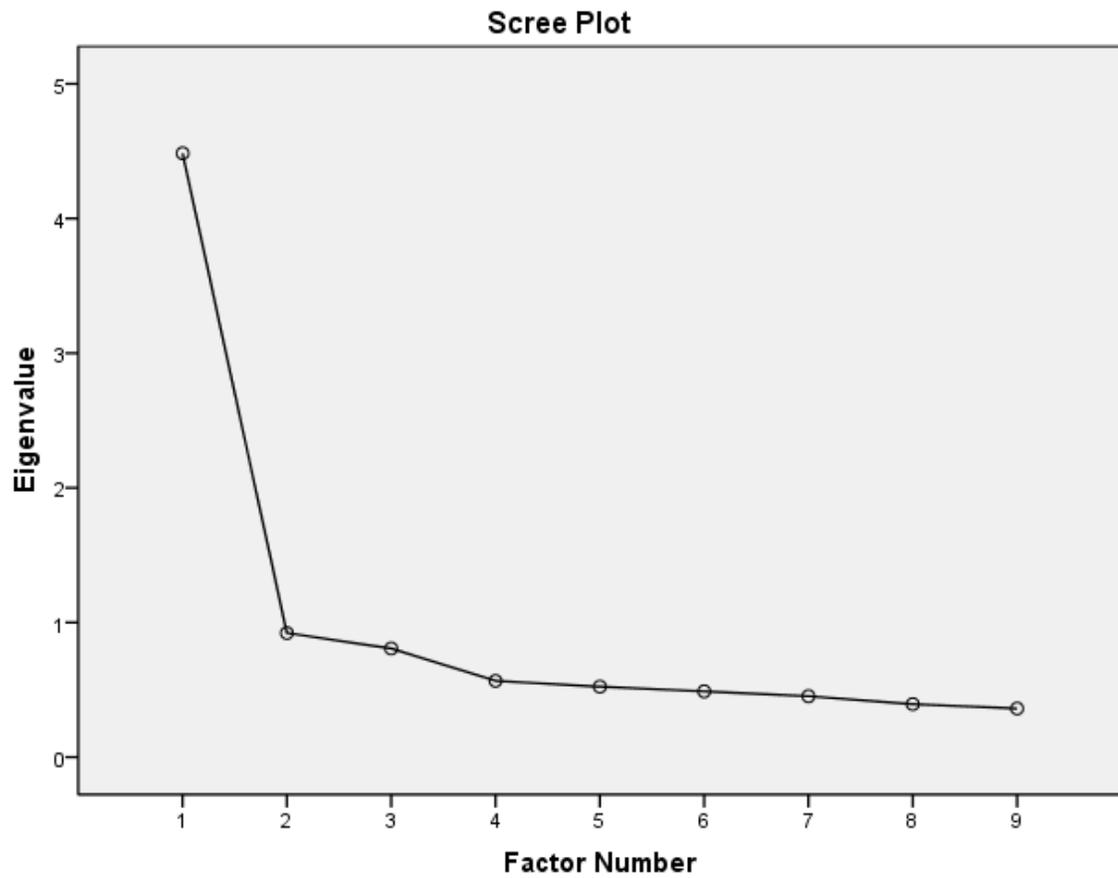
Figure 2.4

Confirmatory Factor Analysis of Cognitive Engagement and Belonging

RMSEA=.008
Chi-sq =2.15 ns
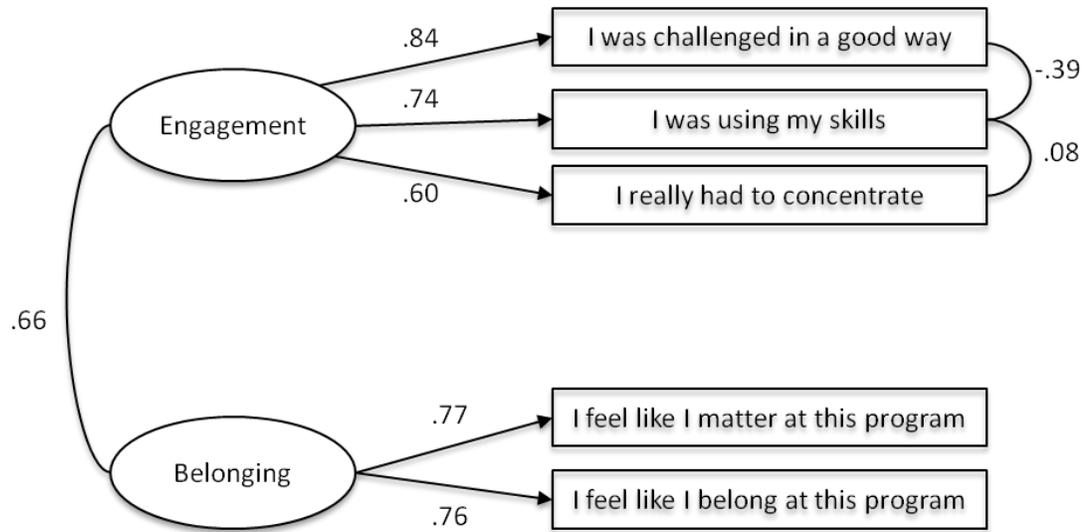
Figure 2.5

Youth PQA Sample Item and List of Items by Scale

IV. Engagement

IV-Q. Youth have opportunities to make choices based on their interests.

Note: (a) Discrete refers to a finite list of specific alternatives. (b) Open-ended indicates nondiscrete, open possibilities within some boundaries. (c) All youth refers to situations where all youth make individual choices or situations where all youth participate in group decision making.

Indicators *If you do not observe an indicator, ask the corresponding follow-up questions.*

1 The activities do not provide opportunities for all youth to make content choices.

3 All youth have opportunities to choose among content alternatives, but choices are limited to discrete choices presented by the leader.

5 All youth have the opportunity to make at least one open-ended content choice within the content framework of the activities (e.g., youth decide topics within a given subject area, subtopics, or aspects of a given topic).

Supporting Evidence/Anecdotes

In prior sessions, did youth make choices about *what* content was covered in today's program offering?
n/o = 1

Welcoming (3 items)
    Staff use a warm tone of voice and respectful language
    Staff smile, use friendly gestures, and make eye contact
    Staff appear to like the youth they're working with.

Active Skill-Building (5 items)
    Activities balance concrete experiences with abstract concepts
    Youth receive support from staff despite imperfect results, errors, or failure
    Staff provide intentional opportunities for development of specific skills
    Staff are actively involved with youth
    Staff make frequent use of open-ended questions

Choices (2 items)
    Youth have opportunities to make content choices
    Youth have opportunities to make process choice

Planning (2 items)
    Youth have opportunities to make plans for projects and activities
    Youth use multiple planning strategies

Reflect (2 items)
    Youth reflect on what they are doing or have done
   Youth reflect in multiple ways

Figure 2.6

*Histograms of Instructional Practice Scales*

Welcoming
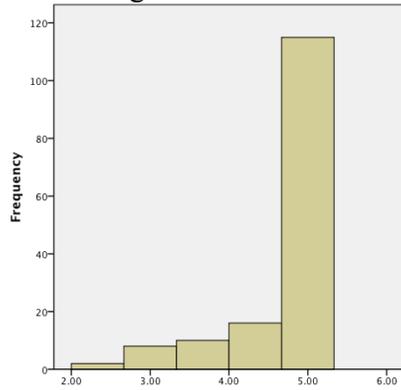

Planning
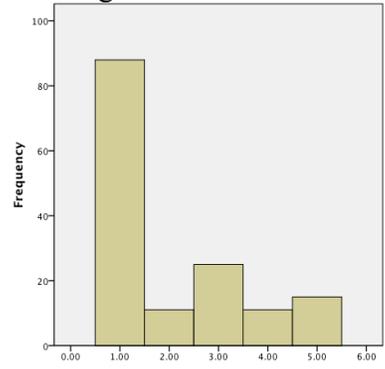
Active Skill-building
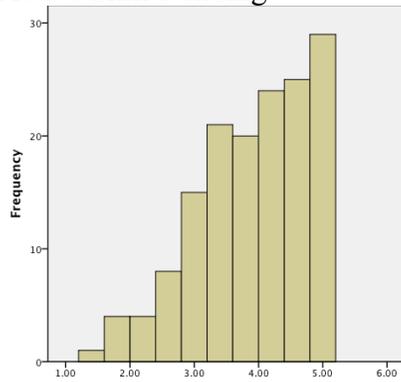
Choice
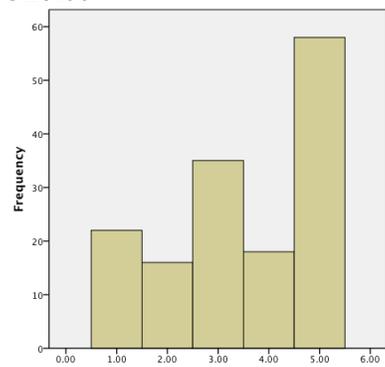
Leadership
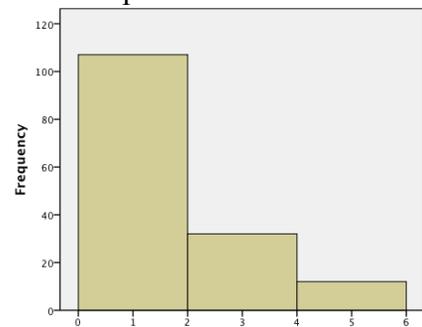
Figure 2.7

*Average Cognitive Engagement by Active Skill-building Practice*
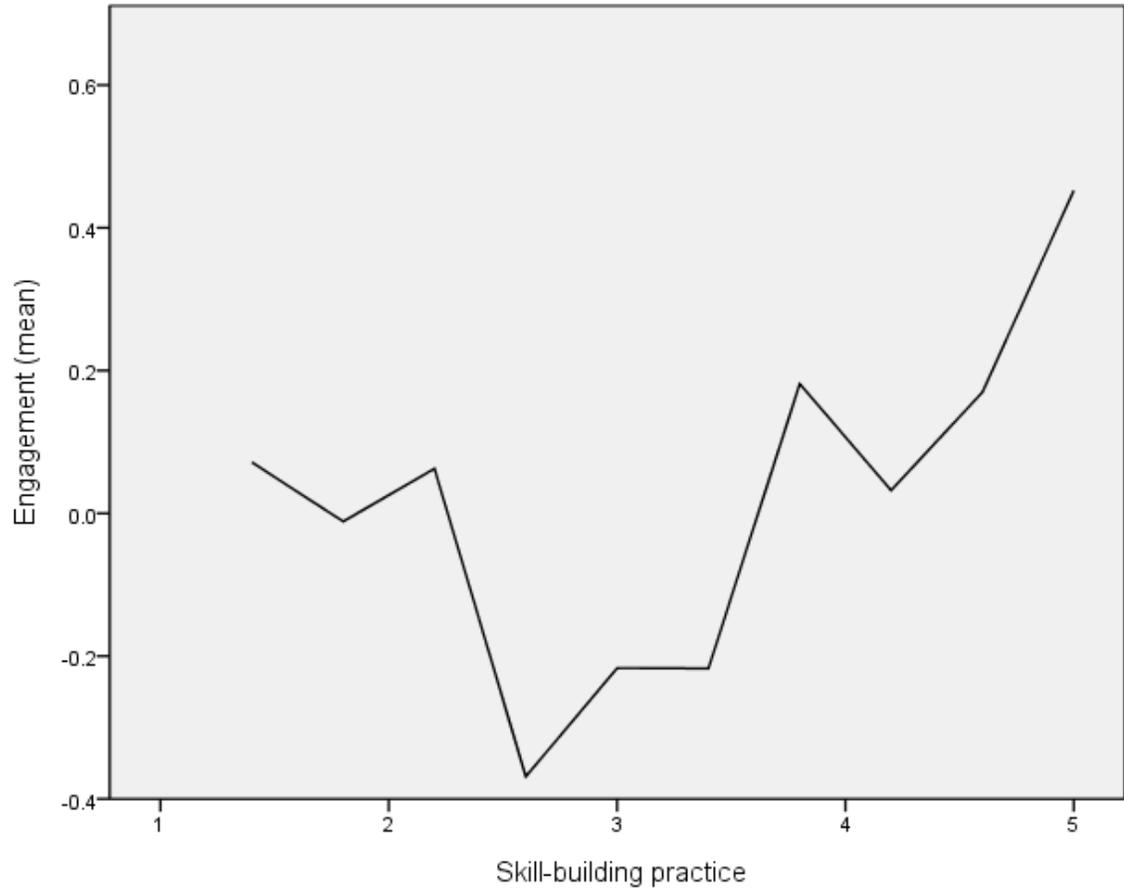
Figure 2.8

Practice-Involvement Relationships by Content Types
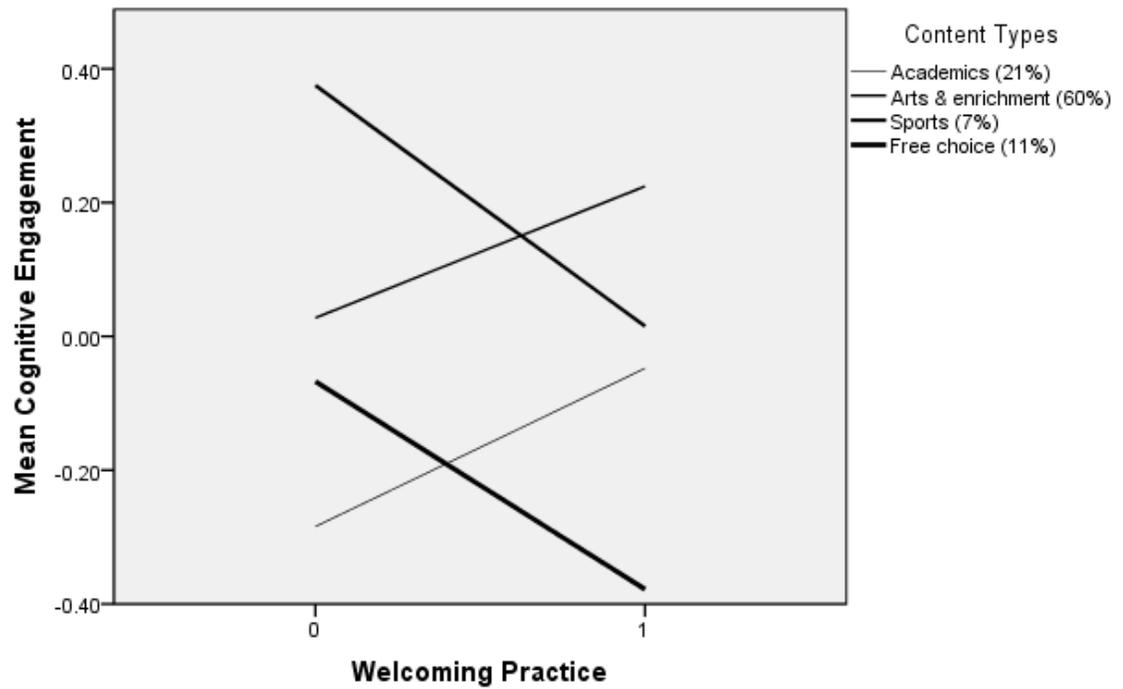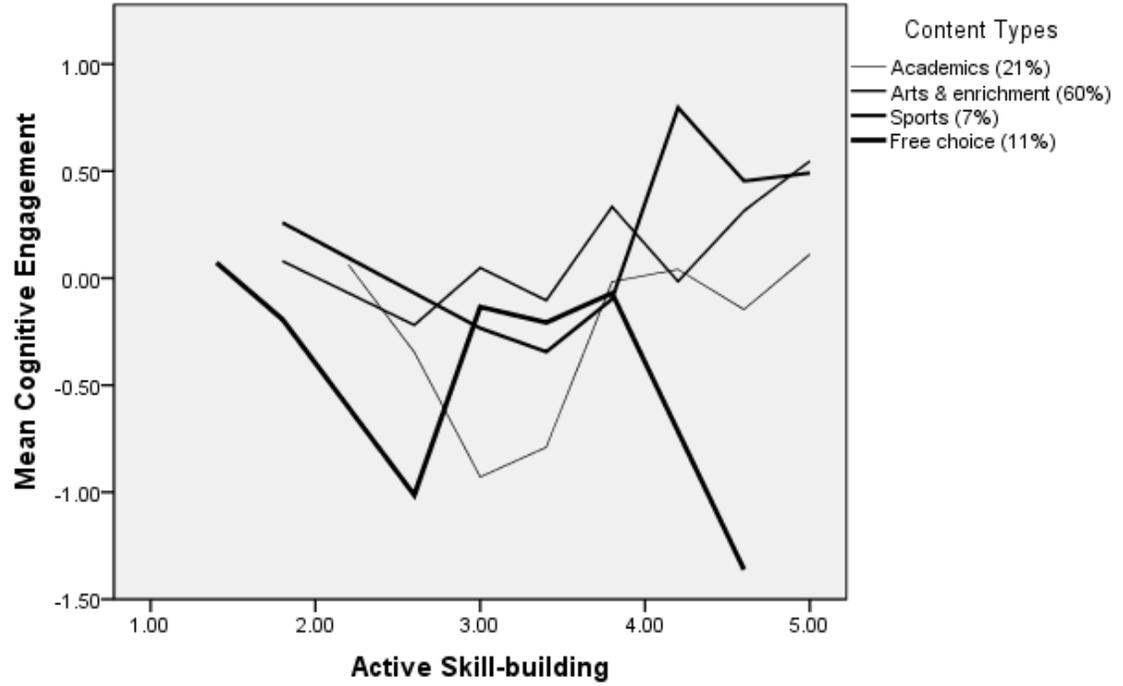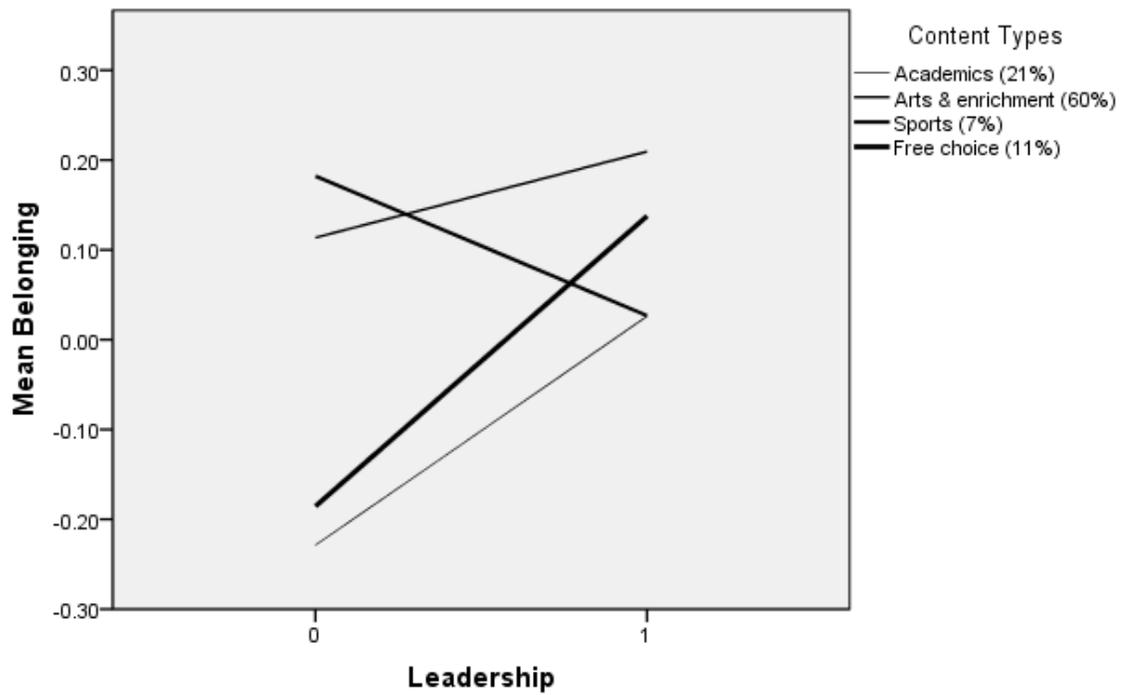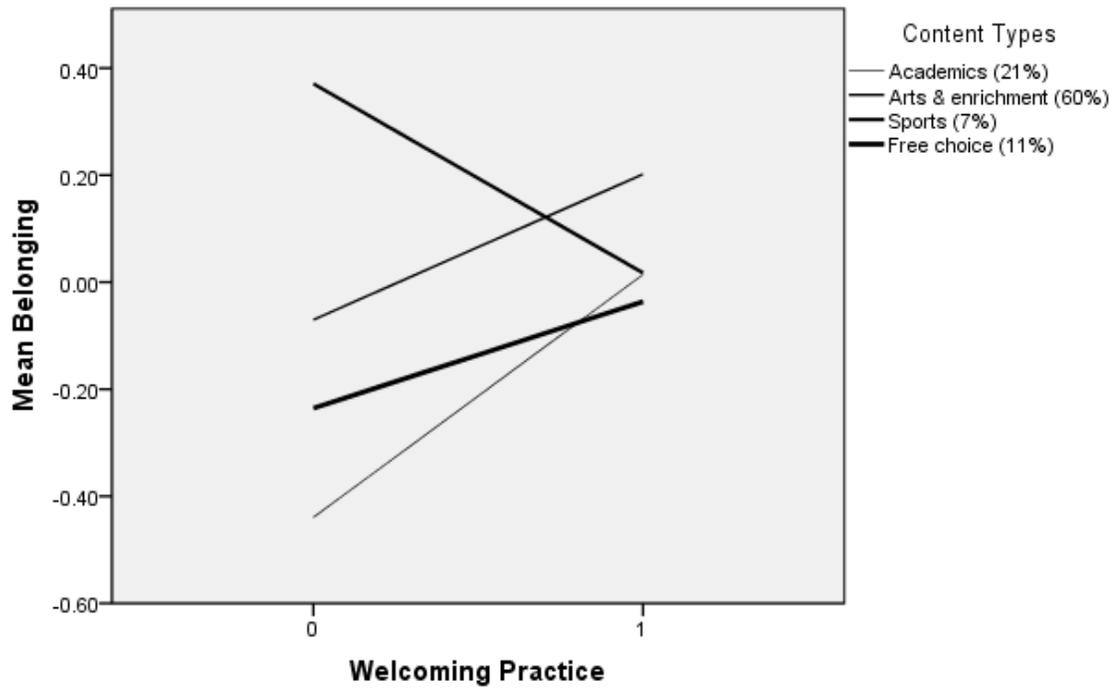
Figure 2.9

Practice-Involvement Relationships by Age
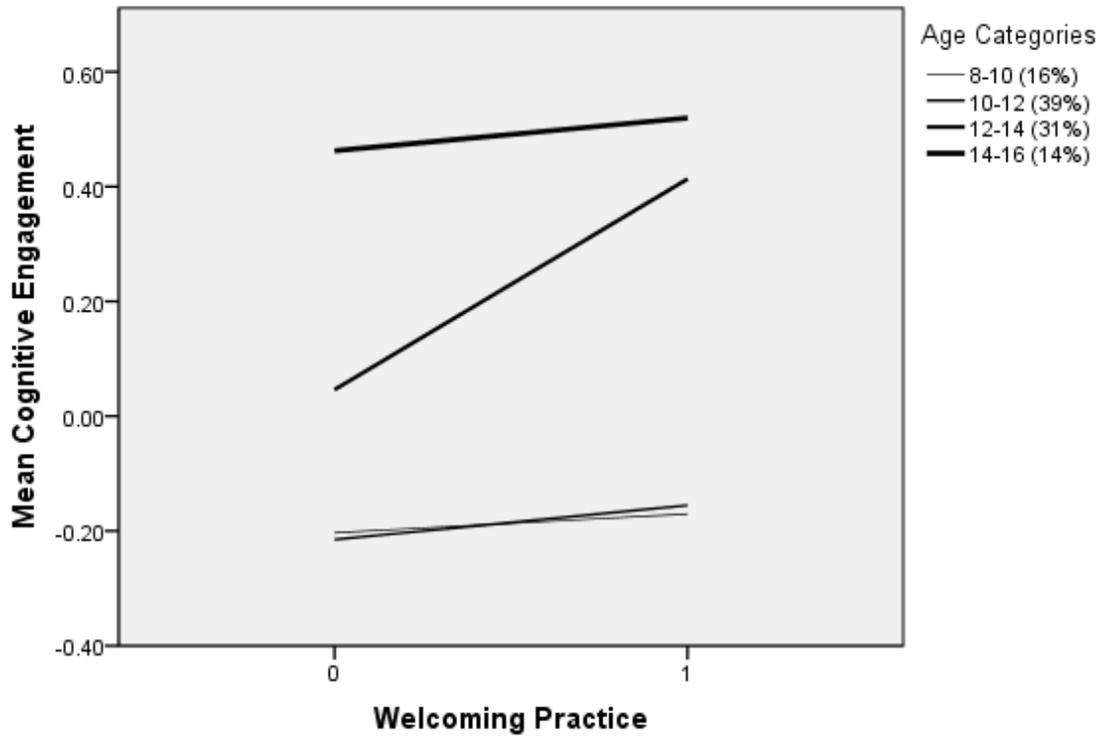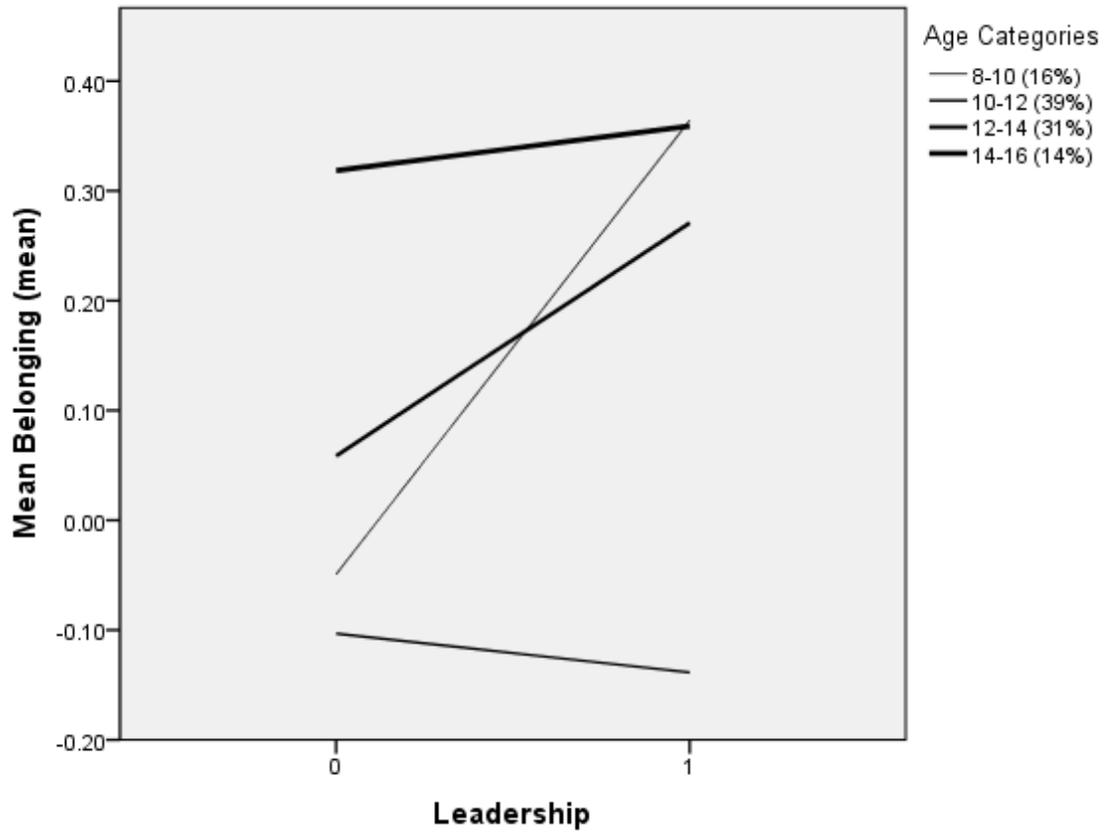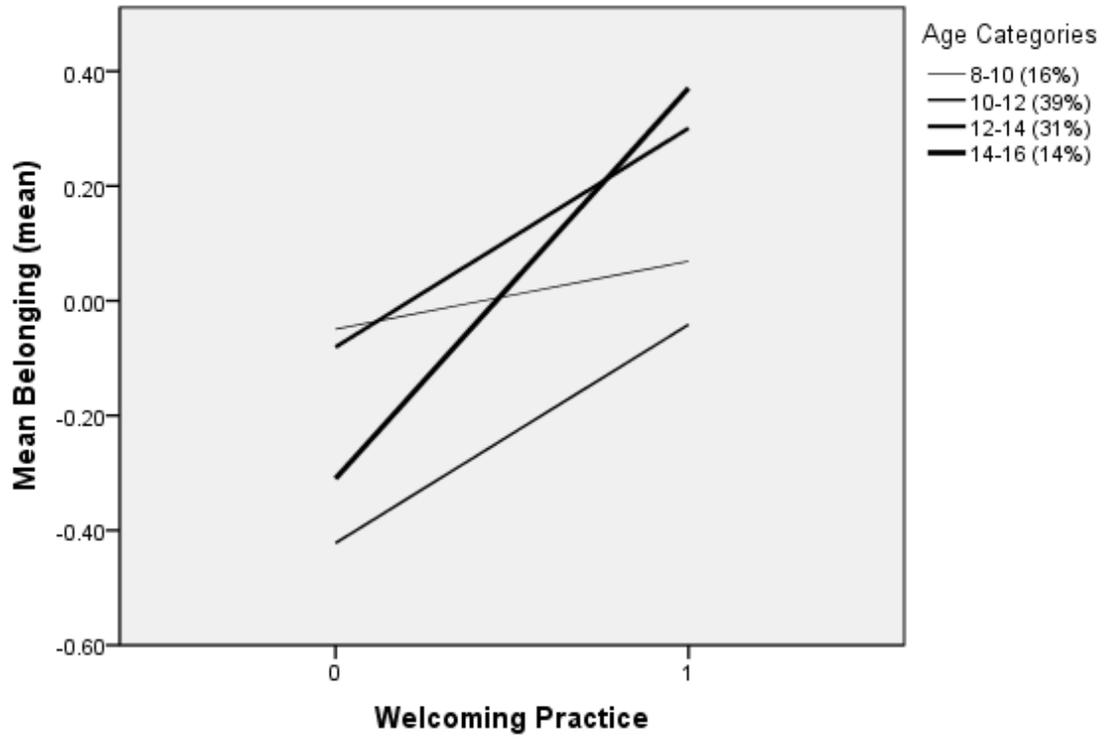
Figure 2.10

Practice-Involvement Relationships by Gender Makeup
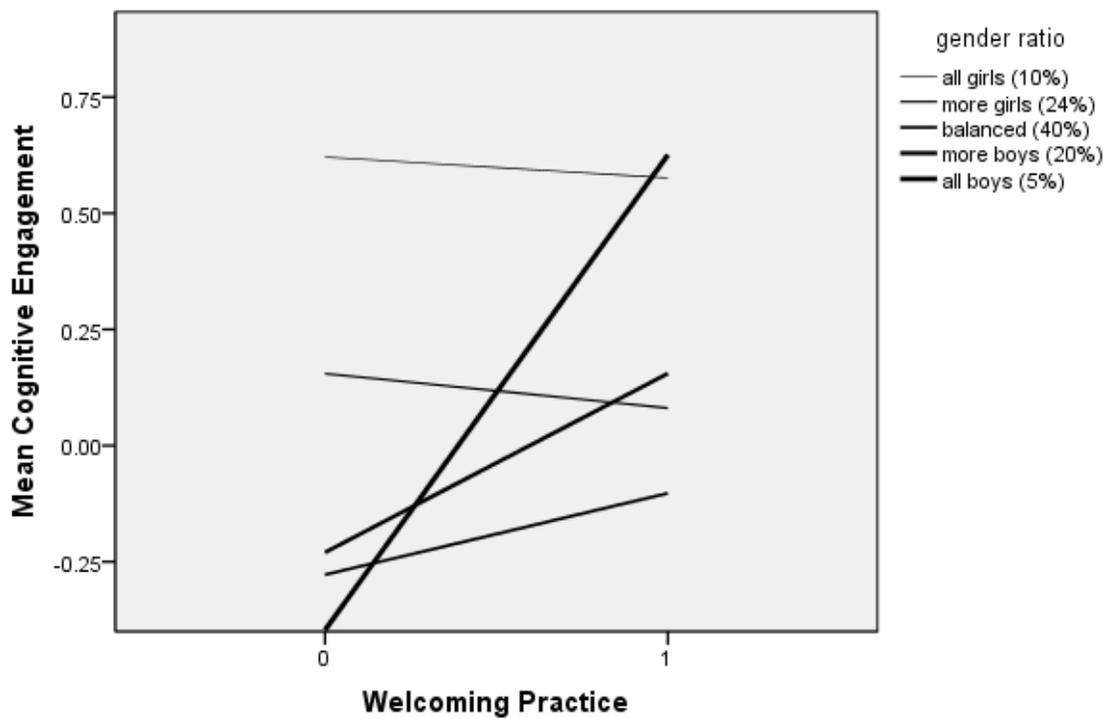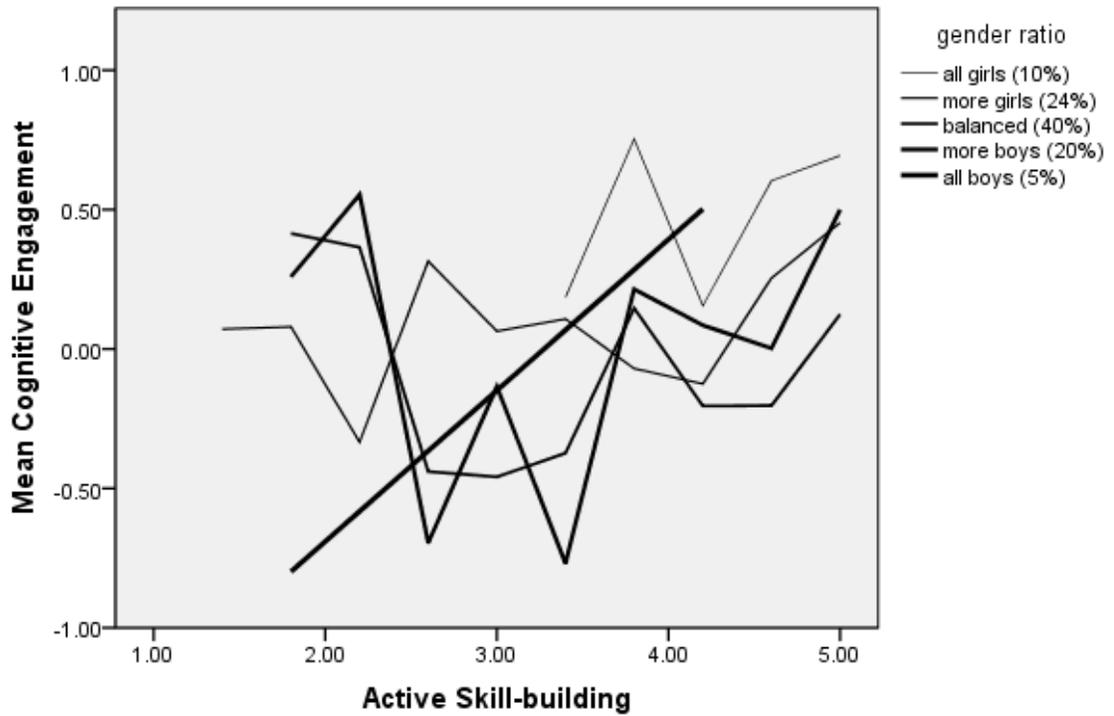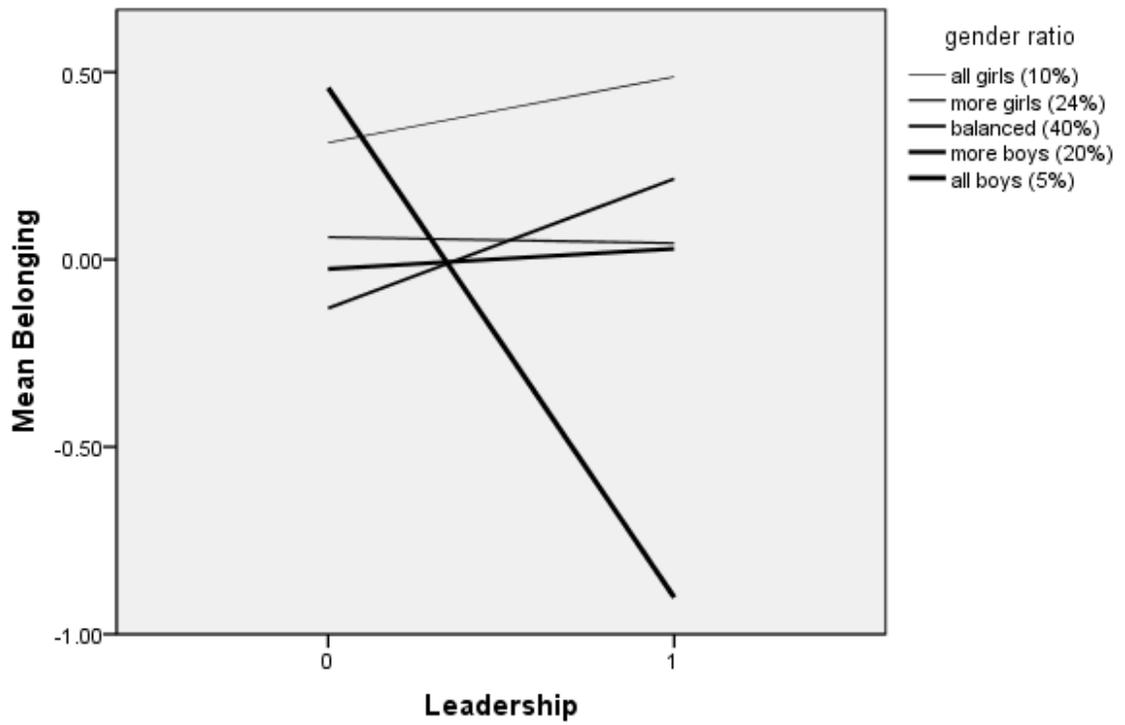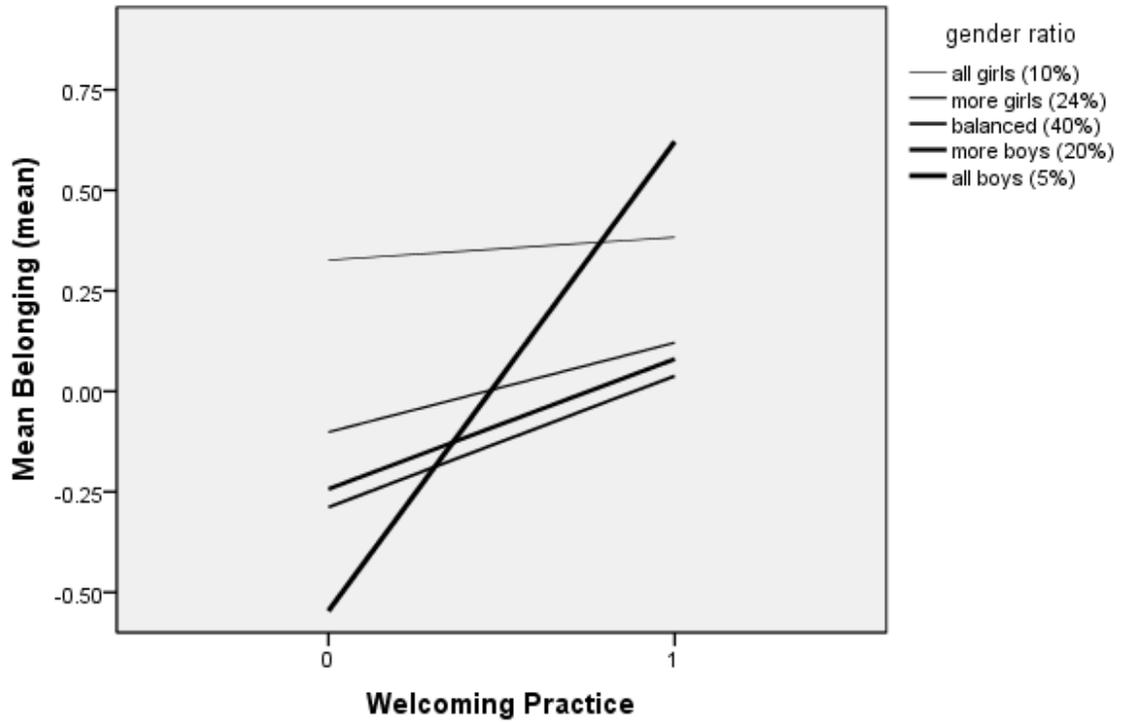
Chapter 3

Involving Youth in Running Youth Programs:

How Common and What Might it Do for Youth?

Researchers have argued that autonomous motivation (i.e., feeling a sense of choice and endorsement of an activity) and autonomy support in learning settings produce multiple benefits for learners, including gains in persistence, achievement, creativity, and well being (Deci & Ryan, 2008; Guay, Ratelle, & Chanal, 2008). Student autonomy in schools may be supported in several ways, including academic choice (Denton, 2005), student voice (Mitra, 2006), teachers' autonomy-supportive communication styles (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004) and through supporting students' interests, preferences, and personal goals (Jang, Reeve, & Deci, 2010). Democratic schools feature school-wide structures that may support autonomy (Apple & Beane, 2007). But these are exceptions to the rule. The very nature of compulsory education may limit autonomy (Brophy, 2004). That is, support for autonomy may be more limited in a school context in which youth do not have a reasonable say in whether or not they are required to be there, in which their achievement

is monitored through examinations, and in which the flexibility of content is tied to grade-level expectations.[22]

Out-of-school time learning settings such as teen centers and afterschool programs feature flexible content and largely voluntary attendance, foundational features which may underlie support for autonomy. Such settings also lack formal student assessments such as grades, a feature which also may have implications for perceived autonomy and motivation. In these settings the operation of the program itself may be used as a context for learning and development—referred to here as youth-in-program governance (YPG). YPG is a subset of *youth-in-governance*, which is defined to include youth participation both in program governance and civic governance (Bowie & Bronte-Tinkew, 2008, June; Mantooth, 2008). YPG practices may include providing opportunities for youth to lead activities, to participate in advisory boards, and to be involved in decisions about how the physical space is arranged, the activities offered, field trips, how money is spent, and even staff hiring.

The value of youth-in-governance opportunities has been extolled in the youth development literature (O'Donoghue, Kirshner, & McLaughlin, 2006)[23], primarily as contexts for *youth-adult partnership*, relationships where there is mutuality in teaching, learning, and action (Russell, Polen, & Tepper, 2009). Numerous practitioner websites

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[22] For example, a certain amount of information is expected to be covered in, say, mathematics in each grade. There are good reasons for this; one is that the starting place for sixth grade math depends to some extent on where the 5th grade class finished the year. However, this situation limits the flexibility youth may have in math classrooms to choose content they wish to spend time on, which may, in turn, limit their feelings of autonomy.

[23] Numerous terms are used to refer to youth involvement in decision-making in youth programs and in communities, including youth engagement, youth involvement, youth participation, youth-in-governance, and youth voice. Contexts in which youth participation has been promoted include: youth councils, participatory action research, youth-led media, and government from local to national levels.

promote youth-in-governance and youth-adult partnerships.[24] National 4-H is likely the

largest youth development organization in the U.S. that promotes youth-in-governance

(see *www.4-h.org*). The provision of youth-in-governance opportunities in 4-H have been

examined in a series of studies by Zeldin and colleagues (Zeldin, 2004; Zeldin,

McDaniel, Topitzes, & Calvert, 2000; Zeldin & Petrokubi, 2006; Zeldin, Petrokubi, &

MacNeil, 2008). These researchers have described youth-adult

partnerships as interactional processes that can support youth-in-governance.

Theoretical Consideration of YPG for Adolescents

Many theoretical perspectives address the elements of YPG. We can therefore

consider the theoretical potential of YPG in terms of (a) developmental, (b) motivational,

(c) educational, and (d) social justice perspectives.

Developmental. Stage-Environment Fit, the theory that contexts are better for

youth when they address issues salient to their developmental stage (Eccles & Midgley,

1989; Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, et al., 1993), provides a

lens for considering the potential value of YPG for adolescents. A long observed key task

of adolescence is the transition to independence and autonomy (e.g., Havinghurst, 1972);

indeed, adolescence can be defined as the transition from dependence to independence

(Spear, 2007). YPG in youth programs may be able to provide the autonomy supportive

contexts that researchers have found lacking for adolescents in schools (Eccles, 2004). In

addition, researchers have long noted cognitive advances in adolescence associated with

abstract and hypothetical thinking (e.g., Eccles, Wigfield, & Byrnes, 2005). Recent

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[24] Websites that promote YPG-related practices include 4-H Youth Development (*www.4-h.org*), the Center for Youth as Resources (*www.yar.org*), the Innovation Center (*www.theinnovationcenter.org*), Youth Engagement and Voice (*www.youthengagementandvoice.org*), Youth Leadership Institute (*www.yli.org*), Youth On Board (*www.youthonboard.org*), and Youth Service America (*www.ysa.org*).

technological advances have allowed researchers to identify neurological changes that may be associated with these cognitive changes. Specifically, the prefrontal cortex—thought to be a key brain area for executive and other higher order functions—may undergo a reorganization during puberty and adolescence. This includes myelination (production of insulation that leads to increased speed in neural pathways) and synaptic proliferation and pruning in the prefrontal cortex during adolescence (Blakemore & Choudhury, 2006). YPG activities may provide a context in which adolescents can use newfound abstract thinking skills (e.g., youth in an advisory council weighing the pros and cons of allocating money to one of two projects) and benefit from the types of cognitive challenges YPG activities may provide.

Motivational. The Expectancy-Value Model of Motivation (Wigfield & Eccles, 2000) holds that motivation to engage in a task is determined by an individual's assessment of the likelihood of their success and the value he or she places on that task. The value a young person places on participating in youth program activities may be higher when that program offers YPG opportunities—and this may occur for the multiple types of task values defined by the motivational model. For example, intrinsic value, or interest, may associate positively with YPG in programs for reasons described in the developmental section above. Youth may place higher utility value on programs with YPG if they see these practices as instrumental to their future success (e.g., 'I will learn leadership skills that will help me get into college'). Youth expectancies for success in skills related to YPG activities may also associate with participation. For example, if as part of YPG activities, a young person has a successful experience expressing herself in front of a group of peers, her efficacy for expression may increase and she may be more

motivated to participate in future activities at the youth program.

Self-Determination Theory (Deci & Ryan, 2000) also speaks to the theoretical and empirical basis for YPG. In the theory's basic terms, motivation can be *autonomous*, driven by intrinsic factors such as interest or factors integrated into one's identity, or *controlled*, driven by external factors (Deci & Ryan, 2008). Research using a Self-Determination Theory perspective has found that students with autonomous motivations show advantages over students with controlled motivations in numerous areas including greater school persistence, higher grades, greater challenge-seeking, increased creativity, and more positive emotions in the classroom (for review see Guay et al., 2008). Autonomy-supportive contexts have been found to foster autonomous motivation; for example, in a series of studies with high school and college students, Vansteenkiste et al. (2004) experimentally manipulated both the type of goal (intrinsic such as personal growth vs. extrinsic such as money) and the manner in which it was presented (autonomy-supportive vs. controlling). Both factors—goals and context—independently and positively predicted persistence, depth of processing, and test performance. If such findings have relevance in youth programs, it may be that both YPG activities themselves and the manner in which they are presented (e.g., through youth-adult partnerships) may affect young people's motivation and learning.

Educational. From an educational perspective, YPG may provide contexts for the development of skills that will help young people succeed in today's world—including those referred to as 21st Century Skills (*www.p21*.org) and social emotional skills (*www.casel.org*). In particular, based on work by Larson and Angus (2011), YPG may provide the context for the development of strategic thinking, defined as "proactive

anticipation to plan and regulate actions to achieve goals" (p. 284), i.e., to navigate the dynamics of real-world human interactional systems. Larson and Angus' (2011) theory-building study involved youth in 11 programs, including six leadership programs that offered elements of YPG (the remaining five were arts-based). Extensive interviews and qualitative analyses led to several propositions, including the notion that projects in youth programs provide opportune contexts for the development of strategic thinking. YPG activities may provide particularly strong contexts for developing strategic thinking skills—in a strong YPG context youth may experience how to get things done in an organizational context.

Social Justice. Empowerment Theory (Perkins & Zimmerman, 1995) provides a fourth theoretical lens, a perspective for considering YPG as a context for social justice and development of critical awareness. Similar to the positive youth development perspective (e.g., Lerner, Lerner, & Benson, 2011) empowerment theory is focused on strengths over deficiencies. Empowerment includes participation, control of resources, and critical awareness (Zimmerman, 2000), and a goal of empowerment-based interventions is typically that participants without equal access to valued resource gain access to those resources (Perkins & Zimmerman, 1995). YPG provides a fitting context for empowerment because it involves elevating youth, who traditionally have little power in organizational settings, to positions of influence and power.

The social justice perspective also includes the idea of youth participation or voice as a basic right in democratic nations. In 1993, UNICEF researcher Roger Hart produced an essay to stimulate the discussion of young people's participation in civic decision-making. The essay included the Ladder of Participation, a graphic depiction of

steps toward the involvement of young people in shared decision-making with adults

(Hart, 1993). Hart's ladder, which has been reproduced repeatedly in practitioner youth

development literature (e.g., Fletcher, 2008), is rooted in the notion that "a nation is

democratic to the extent that it's citizens are involved", with children and youth included

in the definition of citizens (Hart, 1993, p.3). Hart cautions that attempts at youth

involvement may be exploitive or frivolous, and the ladder begins with three rungs,

which he calls "non-participation": (1) manipulation, (2) decoration, and (3) tokenism.

Hart's ladder continues: (4) assigned but informed; (5) consulted and informed; (6) adult-

initiated, shared decisions with children; (7) child-initiated and directed; and (8) child-

initiated, shared decisions with adults.

Hart's ladder illustrates how power relations are embedded in the consideration of

youth participation such as YPG practices. It is only possible to move to the higher rungs

of the ladder if adults share some power and control with youth. Specifically, from step

(6) upward, decision-making is shared with young people, requiring adults to share some

of their power. Indeed, this characterization defines youth participation in relation to

power (Checkoway, 2011). The sharing of power with youth can particularly challenge

adults—particularly for adult youth workers who may have relatively little institutional

power themselves (Camino, 2000).

YPG in practice

Although the provision of YPG opportunities is presumably a relatively new idea

in youth programs and may run counter to existing policies and norms (Zeldin, 2004),

there are no insurmountable barriers that prevent it from becoming a common practice.

Two recent reports indicate that YPG practices may be gaining in popularity. In a sample

of 198 programs that serve middle and high school age youth across six large cities, Deschenes et al. (2010) found that youth input in activities offered was common, with 61% of sites reporting that they offer opportunities for youth to design or lead activities for peers or younger youth, and 55% stating they offer opportunities for youth to shape program rules. Formal youth involvement in program governance was less prevalent but still considerable: 38% of sites reported having youth councils or decision-making groups and 11% featured official "officer" roles for youth. Rates are significantly higher among "high-retention programs", those that retain half or more of their youth for 12 months or more: 67% of high-retention programs have youth councils (vs. 38% of all programs in sample), 28% have official "officer roles" (vs. 11% of all programs), and 76% provide opportunities for youth to design or lead activities for peers or younger youth (vs. 61% of all programs).

In a study of Beacon Centers in New York City (LaFleur et al., 2011, Sept), a youth center model that includes *Youth Councils* and that has been replicated throughout the country, Beacon directors reported that their Youth Councils were involved in: planning community service projects (85%), identifying activities to be offered (79%), planning community events (78%), and recruiting youth (68%). The extent to which youth councils contributed to Beacon Centers was found to be positively associated with youth reports of exposure to new experiences; however, youth council activities did not relate to enrollment or any other variables.

The limited research on YPG suggests that it may lead to increases in youth motivation to attend the program, and in cognitive and socioemotional skills related to leadership; that is, in addition to motivational benefits, youth may experience gains in the

skills that they practice through YPG experiences. In Deschenes et al. (2010), the number of leadership opportunities offered by a program was a strong predictor of retention in the program; suggesting that provision of YPG may associate positively with youth motivation to participate in the program. Similarly, Zeldin (2004) found that youth participation in organizational governance in 4-H was associated with feelings of belonging and importance within the organization. In addition, youth reported gains in the areas of identity development, leadership competencies including communication skills, group facilitation skills, and planning, and community connections or social capital (Zeldin, 2004).

This Research

The present study examined a cross-sectional, nested dataset to investigate the prevalence and correlates of YPG practices. The study is driven by three research questions and corresponding hypotheses summarized in Figure 3.1. First, *How common are YPG practices in general, multi-purpose afterschool programs?* Although previous research suggests that YPG practices are becoming increasingly common in youth programs, it is likely that the prevalence of individual YPG practices vary, based on the amount of power that must be shared with youth to carry out the practice. Based on this assumption, involving youth in decisions about physical space arrangement and activities offered should be relatively common; whereas, practices that involve a higher degree of control sharing—namely involving youth in staffing decisions and in formal advisory boards—will be relatively uncommon (Hypothesis 1). As offering YPG opportunities is not equivalent with youth experiencing them, I will also compare adult (program

director) reports of whether YPG practices occur with youth reports of whether they have been asked to participate in such activities.

The second research question is: *How might YPG experiences benefit youth?* I suggest that benefits may occur in two areas. First, YPG practices may be associated with higher levels of motivation to participate in the program (Hypothesis 2a). Framed in the Expectancy-Value Theory of motivation (Eccles, 1983; Wigfield & Eccles, 2000), YPG practices may increase task value—i.e., youth may place a higher value on program participation when these practices are present. Selection effects may also produce such a correlation; e.g., youth who value youth programs highly may be those more likely to seek out programs in which they have influence through activities such as YPG. Second, youth that participate in YPG may show higher efficacies and skills in areas related to YPG, specifically, efficacy for problem solving, efficacy for expression, and empathy skills (Hypothesis 2b). Participation in the leadership and decision-making of an organization entails addressing the challenges and problems that occur in everyday organizational operation, thereby providing the context for the development of problem-solving skills and confidence about problem solving. Full participation in such contexts is also likely to entail expressing one's beliefs and opinions about decisions and their consequences; participating youth may thus be confident about expressing themselves. Finally, group decision-making in an organizational context involves consideration of options from multiple perspectives, compromises, and social interaction with peers and adults around substantive issues (e.g., teens in an advisory council making program decisions)—a context in which empathy skills are valuable.

As practitioner literature promotes YPG practices primarily for high-school adolescents, in the final research area I examine the extent to which age of youth appears to be a factor in YPG practices and their benefits. First, I investigate the hypothesis that older youths are more likely to control their own attendance than are younger youth; that is, voluntariness is positively associated with age (Hypothesis 3a). Second, I investigate the assumption that YPG practices associate positively with age; that is, these practices will be more common in programs with older groups of youth (Hypothesis 3b). The third part of this hypothesis is based on the assumption that early adolescents' desire for autonomy and cognitive skills will make YPG opportunities a better fit—more attractive and more beneficial—than for younger youth. To operationalize this, I assume that a substantial number of youth at a site must have reached early adolescence for YPG practices to take hold and be effective. I predict a moderator relationship such that relationships between YPG and dependent variables are higher in programs where the average age is 12 or greater (Hypothesis 3c).

Methods

Sample

The sample is from a single wave of the Youth Program Quality Intervention, a randomized field trial conducted by the David P. Weikart Center for Youth Program Quality (Smith et al., 2012).[25] The sample is multilevel, with youth nested in program sites. Youth programs were recruited to this study through afterschool networks that were interested in developing quality accountability and improvement policies and able to

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[25] The purpose of this multi-level intervention was to improve instructional quality through a sequence of making and implementing data-driven improvement plans, led by the program manager. However, the study produced a relatively large nested dataset, ideal for pursuing the questions of this paper.

commit to study conditions. This resulted in a diverse mix of sites, including a mixture of community-based and school-based programs, funded by a number of different sources, including fee-based, 21st Century Community Learning Centers, Department of Health and Human Service (for full description of sites in sample, see Smith et al., 2012). Sites provided content offerings including academics, enrichment arts & crafts, social emotional learning, free choice, and organized sports. The sample includes data collected from 63 after-school programs across four states. Although the majority of sites targeted middle-school age, 18% focused on high school-age youth. Nested within sites, 989 program-wide youth surveys were administered. The number of youth surveys per site ranged from 1 to 71 with a mean of 15.16 (standard deviation [SD] =11.55). Average age was 11.4 (SD=2.7; range 7-19), 53% of the youth were female, and 48% reported that their parents had college degrees.

Measures

All measures were computed using items created for the Youth Program Quality Intervention Study (Smith, et al., 2012). Adult program director measures are from interviews conducted by telephone with the directors or managers of youth programs (N=63). Youth measures are from a program-wide survey, administered by program managers to as many youth as possible at each site (N=1121; *M*=15.2 youth per site; SD=11.6).

Predictors of Interest.

Youth program governance practices offered—adult reports. A *YPG-offered* index was created by coding program director responses to interview questions about youth involvement in decisions regarding: (1) format and content of program offerings;

(2) set up of the physical environment; (3) hiring, training, and evaluation of staff; and (4) formal program governance, such as a teen advisory council. Interviewers recorded answers and coded these answers into scores of low, medium, or high, based on rubrics (See Figure 3.1 for sample rubric). YPG-Offered assesses whether a program offers YPG activities. Construction of the index is described below in the data reduction section.

Youth program governance practices—youth involvement. For the *YPG-Asked* index, youth were asked an identical set of items, but with the stem, "I have been asked to provide input on…", with the response scale: "no", "once", or "more than once". YPG-Asked considers the extent to which individual youth believe they participate in these activities. Construction of the index is described below in the data reduction section.

Dependent variables. Four dependent variables were used in this study. Descriptive information is presented in Table 3.1, and all items for dependent variable scales are listed in Figure 3.2. Information from a confirmatory factor analysis is presented in the Initial Analyses section below.

Participation Motivation. Six items comprise the participation motivation scale (alpha=.90). Higher scores reflect a higher level of motivation to attend the program. Example items include "I like this program", and "I feel like I am using my skills when working on activities at this program". Responses are on a four-point Likert scale (1=strongly disagree; 4=strongly agree). These items were chosen to represent 'task value' in the Eccles Expectancy-Value model of motivation (Wigfield & Eccles, 2000). Specifically, the first three items reflect intrinsic value (interest), the fourth reflects attainment value (importance), and the last two reflect utility value (usefulness).

Efficacy for Problem Solving. Three items make up the efficacy for problem solving scale (alpha = .75; e.g., "I try to think of many solutions when I have a problem"). Responses are on a 3-point scale (1=not at all true; 2=somewhat true; 3=very true). This scale is conceptually similar to the Problem-Solving Confidence subscale of the established Problem-Solving Index (PSI; Heppner & Petersen, 1982).

Efficacy for Expression. This scale reflects a youth's beliefs about her ability to express herself to others. Two items make up the efficacy for expression scale (alpha = .68; r = .51; "I can talk about my thoughts and feelings", "I can explain what I am thinking to others"). Responses are on a 3-point scale (1=not at all true; 2=somewhat true; 3=very true).

Empathy. Four items make up the Empathy scale (alpha = .75; "I try to understand how my friends feel when they are angry, upset, or sad"). Responses are on a 3-point scale (1=not at all true; 2=somewhat true; 3=very true).

Additional Variables. Several variables were included as covariates or in order to address individual hypotheses. Descriptive information for these variables is presented in Table 3.1.

Age. Age-related variables were computed in order to address the relationships between ages of youth and YPG practices (Hypothesis 3). Individual ages in years were reported by youth. Average age by programs site was also computed using these youth reports, for use at level-2 in multilevel models.

Voluntariness. In order to investigate Hypothesis 3a, that older youth have more control over their attendance, voluntariness was assessed using the single, dichotomous survey item: "Do your parents or teacher require you to attend this youth program?"

Covariates. Several single-item, youth-level variables were used in the analyses as covariates in order to improve our ability to generalize. Including these variables in regression models does not give us a complete picture of their potential impact on the youth-in-context system (e.g., the models do not include interaction terms with these variables and YPG). However, their inclusion as covariates does provide some assurance that associations between YPG and dependent variables are not due to these as third variables. In future studies it may be valuable to consider the contribution each of these factors may make for the dependent variables (as opposed to controlling for them); however, the main focus of the present study is to investigate YPG in the youth-in-context system across the individual youth factors included as covariates (e.g. across male and female respondents).

Gender was included (0 = female; 1 = male), based on known gender variation in self-response measures of socioemotional constructs such as empathy (Eisenberg & Lennon, 1983). Controlling for gender allows us to assume, for example, correlations between YPG and empathy are not due to females being more likely than males both to select youth programs with YPG and to exhibit higher empathy. *Parent education* was included as a proxy for socioeconomic status, which also may affect the dependent variables. Parents' highest education was reported by youth on a 4-point scale (1 = "Some high school", 2 = "High school diploma or GED", 3 = "Some college", 4 = "College degree"). I included *grades* to control for effects academic achievement may have on all dependent variables, but problem-solving in particular as problem-solving beliefs have been found in previous research to relate to academic performance (DeAngelis, 2003). For example, a high achieving student may seek out YPG-related

opportunities and such a student may also rate the dependent variables highly. Grades are self-reported on an 8-point scale (1=Mostly D's and F's; 8=Mostly A's). Finally, *Participation intensity* was included to account for variability in program exposure, a factor which affects multiple aspects of experience in organized activities (Bohnert et al., 2010).

Data Analytic Strategy

The strategy for data analysis included two main parts. First, initial analyses included missing data analysis and imputation, data reduction for the YPG indices, and a confirmatory factor analysis for dependent variables. Second, substantive analyses were conducted to address each hypothesis.

Initial Analyses.

Missing data. The original datasets contained 1122 youth surveys (level-1) and 74 supervisor interviews (level-2); however, not all cases had corresponding data across levels. Specifically, 11 level-2 cases had no corresponding cases at level 1, and 11 sites represented at level 1 (representing 143 youth) had no corresponding cases at level 2. Cases with no cross-level corresponding cases were removed for multilevel analyses, yielding a sample size of 979 youth nested in 63 sites.

No variables at level-2 were missing data. For level-1 variables, missingness ranged from 0 to 6% for all variables except parent education, which had 13% missing. Based on recommendations by Rubin (1986), three imputed datasets were drawn using Amelia II software for missing data (Honaker et al., 2010) using bootstrap-based expectancy maximation method.

Data reduction for YPG indices. Interviewers asked managers four questions

related to YPG practices and later coded answers into scores of low, medium, or high

based on a written rubric (See Figure 3.2). However, when considered from the

perspective of the experience of youth, category distinctions are unclear and items appear

dichotomous in nature—for example, a youth who was "consulted about staffing

decisions" (medium) likely had a comparable experience to one in a program in which

"youth and staff share responsibilities for hiring" (high). In addition, none of the items

were normally distributed, lending support for dichotomization. Therefore I recoded

items as 0 and 1, with collapsed categories illustrated in Table 3.2. Youth responded to

similar questions, indicating their participation in such activities: never, once, or more

than once. Based on the assumption that even a single instance constituted presence of

the practice, youth measures were dichotomized such that 0 indicates never, and 1

indicates one or more times (see Table 3.2 for frequencies prior to and after

dichotomization).

Confirmatory Factor Analysis for Dependent Variables. As psychometric

information was not available for the four dependent measures, I subjected the items to a

confirmatory factor analysis. This analysis is depicted in Figure 3.3. The model shows

strong fit with root mean standard error of approximation (RMSEA) of .036; factors are

allowed to correlate with each other, and standard error scores are allowed to correlate

between several within-factor variables as shown in the figure (e.g., first item of

Participation Motivation with 3rd and 5th item).

Substantive Analysis. Prevalence of YPG practices (Hypothesis 1) and

agreement across sources were investigated by examining frequencies on the YPG-

Offered and YPG-Asked indices and on individual items. Relationships between YPG

practices and youth program motivation and related efficacies/skills (Hypothesis 2) were

addressed through Hierarchical Linear Modeling (HLM). For each dependent variable, I

built models additively in order to chart explanatory contributions of sets of predictors.

That is, after running unconditional models, I created a model with all covariates (age,

gender, parent education, grades, and participation intensity). I next added the YPG-

Offered index in order to assess the impact of the availability of YPG opportunities in

program sites. I then added the YPG-Asked index to investigate whether youth reports of

their participation in YPG added explanatory power over and above the models that

accounted for YPG opportunities. To assess age-related variations (Hypothesis 3), I used

single-level techniques (bivariate correlation, ordinary least squares regression) to

investigate associations of voluntariness and provision of YPG practice with age of

youth. I then include Age by YPG interactions in HLM models to test for moderation

effects.

Results

Zero-Order Correlations

Table 3.3 presents bivariate correlations for all level-1 variables. Dependent

variables correlate with each other from $r = .34$ to $r = .52$. The only relatively large

correlation with YPG-Asked is for participation motivation ($r = .28$). The only other

correlations greater than $r = .20$ are among covariates: parent education with age ($r = -

.24$) and grades ($r = -.25$), and age with grades ($r = .27$).

Prevalence of YPG (Hypothesis 1)

Table 3.1 presents survey results related to prevalence of YPG practices. Overall patterns across program directors and youth are relatively similar. As predicted, involving youth in decisions about the format and content of activities is relatively common in this sample (94% of directors report offering, 77% of youth report participating) and the higher control sharing practices of staffing decisions (20%, 19%) and program governance are relatively uncommon (24%, 40%). Contrary to the hypothesis, input on physical setup is relatively uncommon (32%, 38%).

Prior to dichotomization, correlations between adults reporting provision of YPG opportunities and youth reporting being asked to participate (averaged to site level) are low: activities ($r = .13$), physical setup ($r = .07$), staffing ($r = .06$). Only program governance shows a significant correspondence between reporters ($r = .27$, $p < .05$). There is considerably more agreement, however, when these measures are dichotomized into binary variables, which are hypothesized to provide a more accurate view (see data reduction section above). As shown in Table 3.4, agreement (i.e., adults say program offers a practice *and* youth say they have been asked to do this activity) ranges from 68-83%. The two indices computed with these items, YPG-Asked and YPG-Offered, correlate at $r = .33$, $p < .01$. Taking the aggregation a final step further, comparing director reports of 3 or 4 practices (high) vs. 0-2 practices (low) to youth reports of the same, adults and youth agreed 84% of the time (50 low; 3 high) and disagreed 16% of the time (in 9 cases adults said high and youth said low; in 1 case youth said high and adults said low).

YPG Associations with Motivations, Efficacies, & Skills (Hypothesis 2)

Table 3.5 presents results of three multilevel models with participation motivation (standardized) as dependent variable in order to address Hypothesis 2a. The covariate model shows significantly better fit than the fully unconditional model as indicated by a chi-square change of 17 (change from 450 to 433, with change in approximate degrees of freedom of 1). The coefficient for gender (coded 0 for female; 1 for male) is significant and negative, indicating that males on average tend to rate their participation lower than do females by 1/5 of an SD. Participation intensity has a small, positive relationship such that youth who report coming more frequently tend to rate their participation motivation higher. Controlling for individual age (level 1), when the average age of youth at a site (level 2) is higher, youth tend to rate their participation motivation about a tenth of an SD higher. Youth-reported parent education levels and grades appear to have no relationship with their participation motivation.

When YPG-Offered is added (second column), it shows a positive, significant correlation with participation motivation. As YPG-Offered is included unstandardized and uncentered, the coefficient can be interpreted as indicating that a single YPG practice (e.g., a youth advisory council) is associated with participation motivation scores that are .2 SD higher than without that practice. This model explains considerably more level-2 variance (from 2% to 12%) and shows significantly better fit than the covariate one. In the model in column three, YPG-Asked is positive and significant, indicating that over and above provision of YPG practices reported by adults, youth who participate in one more YPG practice tend to have .15 SD higher motivation. YPG-Offered continues to be significant in this model as well, suggesting that provision of YPG practices has a

relationship with motivation, even outside of the path through youth participating in these activities. Again this model explains significantly more variance than the previous model. These analyses find support for Hypothesis 2a.

Table 3.6 presents results of multilevel models with the dependent variables of efficacy for problem solving, efficacy for expression, and empathy (Hypothesis 2b). All dependent variables are standardized. For each dependent variable a set of three models are presented; except for the dependent variable, these are identical to the models presented in Table 3.5. Model fit statistics appear at the bottom of the table; unlike with the models for participation motivation, not every model explains more than the previous one.

Covariate models are presented in the first column for each dependent variable. For the dependent variables of Efficacy for Problem Solving and Empathy, age shows significant negative coefficients at level 1 and positive at level 2. In both cases, for a year increase in average, the dependent variable tends to be .1 SD higher. Also in both cases, with average age controlled for, older youth tend to rate their Empathy and Efficacy for Problem Solving slightly lower. Coefficients for gender (coded 0 for female; 1 for male) are significant in every model, indicating that males tend to rate each of these dependent variables lower. Most substantial, males on average indicate empathy that is nearly half a standard deviation lower than females. Grades have small but significant negative relationships with all three dependent variables. Participation Intensity has a small, significant positive relationship with Efficacy for Problem Solving and Empathy.

In the YPG-Offered models (2rd column for each dependent variable), YPG-Offered appears to have no relationship with Efficacy for Problem Solving, and positive,

significant relationships with Efficacy for Expression and with Empathy. In both cases, an increase in one YPG practice is associated with an increase of about 1/10 SD in the dependent variable. In the YPG-Asked models (3rd column for each dependent variable), YPG-Asked shows a positive, significant relationship with Efficacy for Problem Solving. In other words, provision of YPG at a site (YPG-Offered) shows no association with Efficacy for Problem-Solving; however, youth participation in YPG (YPG-Asked) shows a positive association. YPG-Asked shows a positive and significant association with Efficacy for Expression and when YPG-Asked is introduced into the model, the coefficient for YPG-Offered loses significance. This suggests that associations between YPG practices and efficacy for expression appear to be stronger when youth participate in YPG (versus simply attending a site in which YPG practices occur). The coefficient for YPG-Asked with Empathy as dependent variable is very small and only significant at the $p < .1$ level, suggesting that any correlation that may exist is quite small.

Age-Related Variations (Hypothesis 3)

Hypothesis 3 suggests that YPG practices are most appropriate for adolescents. I first investigated the relationship of age and voluntariness at the site level (Hypothesis 3a). The zero-order correlation between average age in a site and proportion of youth that report that they came without being required by an adult is very high: $r = .53**$. As shown in Figure 3.4, this relationship appears to be very linear; the older youth are, the less often they report being required to attend. For youth age 12 or older (the cutoff used in subsequent analyses), 46% reported that they were required to attend vs. 78% for younger youth (t [1043] = 11.09, $p = .000$).

As shown in Figure 3.5, the prevalence of YPG practices by average age (Hypothesis 3b)—whether reported by adults or youth—appears to exhibit a positive, though not strictly linear relationship. Rather, there appears to be a jump at the high school level: The average YPG-Asked score for programs with average age 14 or greater is 2.20 versus 1.21 for sites with younger average age ($t = 2.69$; $p = .009$).

To address the hypotheses that a site must have a critical mass of older youth for YPG practices to be effective (Hypothesis 3c), I ran two multilevel models for each dependent variable (See Table 3.7). Starting with the YPG-Asked models shown in Table 3.6, I removed average age at level 2 and replaced it with the dichotomous variable Twelve, which is coded "1" for sites with average age 12 or higher, and "0" otherwise. YPG-Offered in these models is centered (at level-2); the models are otherwise identical to the YPG-Asked models in Table 3.6. For each dependent variable, the first model includes YPG-Offered and Twelve; the second adds the interaction term for YPG-Offered by Twelve.

There appears to be no age by YPG interaction for Participation Motivation and Efficacy for Expression. For Efficacy for Problem Solving and Empathy, the interaction term shows a positive significant coefficient, in both cases at about a quarter SD. Simplified depictions of these two interactions appear in Figure 3.6. For Efficacy for Problem Solving, the addition of the interaction term results in the main effect for YPG-Offered turning negative and significant. As the baseline sites have average ages below twelve, this indicates that YPG-Offered is *negatively* associated with Efficacy for Problem Solving in younger youth programs. For the older program youth, the effect is

positive and about a tenth of an SD (.26 + -.14 = .12). YPG does appear to associate positively with Efficacy for Problem Solving for older youth.

Discussion

This study investigated the prevalence and correlates of YPG practices, using single-level and multilevel methods with a cross-sectional dataset of 979 youth nested in 63 program sites. Support was found for all three hypotheses, which will be discussed in turn below.

Substantial support was found for Hypothesis 1, which suggested that the prevalence of YPG practices would vary by the amount of power-sharing each practice entails. Although this sample of sites is not nationally representative, it is made up of multi-purpose programs of reasonable size and stability, and there is no reason not to assume these YPG rates are representative of similar youth programs. Findings suggest that youth decision-making regarding the activities offered is relatively common (94% program directors report offering; 77% youth report being asked to provide input), consistent with previous research (Deschenes et al., 2010; LaFleur et al., 2011, Sept). Perhaps these high rates of youth involvement are possible due to content flexibility in youth programs, a feature less likely to be found in schools. Also consistent with Hypothesis 1, opportunities to play roles in staffing decisions and to participate in program governance bodies appear to be less common (19-40%). The lack of reported youth involvement in decisions about physical setup (posters, furniture, color of paint on walls; 32-38%) may reflect an overall lack of control of the physical space in program settings, even by adults. For example, programs that operate within school buildings such

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as 21st Century Community Learning programs (19% of sample), may have strict limitations on their ability to alter their physical space.

Findings related to Hypothesis 1 speak to the social justice perspective described in the introduction. A high YPG score may reflect a context similar to those described as goals in empowerment literature—i.e., involving youth in institutions and decisions that affect their lives (Checkoway, 2011). Scoring high on either YPG index would require adults in a program to share control with youth—a group that traditionally does not hold decision-making power in such areas—and the low rates found may reflect the difficulty of employing high control-sharing YPG practices. This may be due to *adultism*, defined as bias against youth, oppression, discrimination, and the often unconscious assumption that young people are inferior or less important than adults (Bell, 1995). Attempts to fully employ YPG practices in youth programs must confront the biases that administrators and staff may hold with reference to youth capabilities and appropriate roles.

YPG Practices, as reported both by adults and by youth, were both relatively strong predictors of youth participation motivation, providing support for Hypothesis 2a. The interpretation of findings suggested by the hypothesis is that (a) youth find programs that offer YPG more motivating, (b) this goes for youth of all ages (as no age interaction effect found), and (c) this may hold true even for youth who have not been asked to participate in YPG activities (as both YPG indices are predictive in the same statistical model). Stemming from this interpretation, it may be that the youth influence in programs with YPG results in program offerings that are better aligned with current youth interests and skill levels—e.g., a youth advisory council may suggest that a program offer hip hop dancing, which a large population of youth peers of those in the council are interested in.

A second interpretation is that selection effects are causally responsible for these findings; that is, children and youth with a tendency for high participation motivation seek out programs in which they may have a voice and influence. Both interpretations suggest that YPG practices and youth motivation may go hand in hand.

Regarding findings related to Hypothesis 2b, Efficacy for Problem Solving is the included dependent variable most related to cognitive learning that may occur through YPG. Problem solving may be a component of the strategic thinking described by Larson and Angus (2011) as opportune skills to learn in youth programs. No main effect for YPG-offered and Efficacy for Problem Solving was found for the overall sample; however, a positive correlation was found for the sites with average age of 12 or higher. In addition, a small but statistically significant positive correlation was found for YPG-Asked, suggesting the simple explanation that the correlation for Efficacy for Problem Solving only exists for youth who are asked to participate in YPG. Certainly, efficacy for problem solving should not be confused with problem-solving ability, and future studies will be needed in order to learn whether associations with problem-solving skills are associated with YPG.

The significant, negative effect on Efficacy for Problem Solving for the younger baseline group when the interaction term is included in the model (Table 3.7, column b under problem-solving) is curious. It is possible that YPG activities offered to younger age groups produce frustrations around beliefs about problem solving abilities– i.e., youth are asked to do things they are not cognitively ready for, they are not successful and these tasks, and this lowers their self-efficacy for problem solving. Another possibility is that YPG is a proxy for the overall intellectual challenge at a program and that youth with

lower problem solving self-efficacy tend to avoid programs they perceive as too challenging. As findings suggest that older youth have more control over their participation, perhaps the younger group has more youth with low problem-solving efficacy—youth who would stop coming if they could.

Efficacy for Expression and Empathy both showed small positive relationships with both YPG-Offered and YPG-Asked. For Empathy, the interaction model suggests that the effect is entirely driven by the sites with average age 12 or higher. Both of these constructs have socioemotional as well as cognitive aspects. As with the other dependent variables discussed, the positive correlations may be due to youth practicing and achieving gains in these efficacies/skills in YPG contexts and/or they may be due to selection effects.

Several findings speak to the distinction between a program *offering* program governance opportunities, and youth *participating* (or at least being asked to participate) in those activities. The finding that YPG-Offered continues to be significant in models that include YPG-Asked (related to Hypothesis 2b), suggests that YPG has an overall correlation with dependent variables for all children and youth, even those who don't participate in YPG. It is possible that YPG is a proxy for a third variable--overall program quality, i.e., better youth programs tend to offer YPG practices—and the correlations are due to this third variable. It is also possible, as previously suggested, that a program that offers YPG is able to provide offerings that better match youth interests than programs that do not.

Two aspects of this study limit the ability to address the research questions. First, the average age of youth was just under 12, with 62% of sites having an average age of

younger than 12. Although this aspect of the sample allowed for comparisons between older and younger program participants, possible analyses with the subsample of older youth were limited due to sample size. Second, the multilevel models associated with Hypotheses 2 and 3 do not predict a large amount of variance, with the exception of the Motivation models. The best fitting models predicted: for Motivation, 20% level-2 and 6% level-1; for Efficacy for Problem-Solving, 0% and 8%); for Efficacy for Expression, 23% and 3%; and for Empathy, 21% and 11%. These models are predictive; however, much is left to learn about the key factors related to these dependent variables in youth-in-context systems.

The youth development field could benefit from future studies related to these findings. First, research designs that tease out selection effects and investigate the causal direction of these correlations are critical for understanding YPG and other approaches, especially for applied purposes. Second, the motivational processes that occur in youth-in-program systems in contexts such as YPG could be further examined at a micro level, both youth and staff motivation. For example, study designs that include day-to-day assessment of young people's reactions to YPG activities might lead to insights into how these experiences relate to leadership development. Finally, to the extent that cognitive and socioemotional skills are developed in a youth program, longitudinal or experience sampling designs might uncover whether and how such skills may transfer to other life contexts such as school and work.

Several findings support the notions discussed in the introduction that YPG may be a useful innovation for developmental, motivational, educational, and social justice outcomes. The finding that voluntariness appears to have a strongly linear association

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with age supports the intuitive idea that older youth are provided more latitude about whether to attend youth program activities. This is compatible with longitudinal findings that participation in out-of-school time activities decreases with age (Denault & Poulin, 2009), and with the Expectancy-Value Theory explanation that older youth have more options, which act as opportunity costs; e.g., sports and other extracurricular activities, babysitting and other work options. YPG activities offered in youth programs may provide options that are both appealing and beneficial, particularly to older youth. Findings suggest that YPG-type activities may associate with young people's motivation and this is not affected by age or self-reported grades. Grades showed very small effects in other models; e.g., grades show a small positive relationship with problem-solving efficacy. Perhaps YPG offers the context for a different kind of learning than youth encounter in school, and the context for a different kind of learner. That is, perhaps YPG can provide opportunities for youth who do not excel academically or as leaders in school to do so in a different context.

Table 3.1

Descriptive Information for Unstandardized Dependent Variables and Covariates

Continuous Variables	Items	Range	M	SD	Skew	Kurt	alpha
Dependent Variables							
Participation motivation	6	1 - 4	2.99	0.71	-.073	0.22	0.90
Effic. for Prob. Solving	3	1 – 3	2.30	0.49	-0.42	-0.35	0.75
Effic. for Expression	2	1 - 3	2.13	0.58	-0.29	-0.71	0.68
Empathy	4	1 – 3	2.47	0.43	-0.91	0.83	0.75
Covariates/Other							
Age	1	7 - 19	11.42	2.17	1.32	2.15	n/a
Average age (level-2)	1	9.07 – 18.00	11.65	1.82	1.42	2.35	n/a
Parent education	1	1 – 4	3.24	0.99	-0.87	-0.13	n/a
Grades	1	1 – 9	2.62	1.60	1.41	2.06	n/a
Participation intensity	1	1 - 5	3.72	1.49	-0.72	-1.00	n/a

Dichotomous Variables	Distribution
Gender	53% female, 45% male, 2% missing
Voluntariness	62% required to attend, 32% not, 7% missing

Note: All descriptive information above is from original, non-imputed data sets.

Table 3.2

YPG Practices: Program Director and Youth Reports

Program Directors	Original			Dichotomous	
Who determines decisions about… Are youth involved?	Low	Medium	High	Not Present	Present
1. Activities	6 (no opportunities)	57 (informal opportunities)	37 (structured opportunities)	6	94
2. Physical setup	68 (no youth involved)	22 (youth consulted)	10 (shared responsibility)	68	32
3. Staffing	79 (no input)	16 (youth consulted)	5 (shared responsibilities)	79	20
4. Program governance	57 (no role)	19 (input or token presence)	24 (shared responsibilities)	76	24
Youth	Original			Dichotomous (one or more times)	
I've been asked to provide input on…	No	One time	More than once	Not Present	Present
1. Activities	23	29	47	23	77
2. Physical setup	62	18	20	62	38
3. Staffing	81	10	9	81	19
4. Program governance	60	21	19	60	40

Note: Program directors N=63 sites; no missing data. Youth reports of their participation in YPG Practices (using non-imputed dataset, valid percent; n=1100-1107).

Table 3.3

Zero-order Correlations for Level-1 Variables

	a	b	c	d	e	f	g	h
Dependent Variables								
a. Participation Motivation	1.00							
b. Effic. for Prob Solving	.34	1.00						
c. Effic. for Expression	.40	.48	1.00					
d. Empathy	.36	.52	.45	1.00				
Predictor								
e. YPG-Asked	.28	.09	.18	.05	1.00			
Other								
f. Age	.05	-.06	.00	-.08	.16	1.00		
g. Parent Education	-.11	.04	.01	.03	-.13	-.24	1.00	
h. Grades	-.08	.11	.09	-.12	.09	.27	-.25	1.00
i. Participation Intensity	.09	.09	.08	.14	-.01	-.00	.04	-.02

Table 3.4

Percent Agreement of Adults and Youth on YPG Practices (Dichotomized)

	Agree			Disagree		
Director response	No	Yes	**Total**	Yes	No	**Total**
Youth response	No	Yes	**Agree**	No	Yes	**Disagree**
1. Activities	0	83	**83**	11	6	**17**
2. Physical setup	57	11	**68**	21	11	**32**
3. Staffing	79	3	**82**	18	0	**18**
4. Program governance	68	6	**74**	13	7	**20**

Table 3.5

Multilevel Models for Participation Motivation

Fixed Effect	Participation Motivation		
	Covariates	YPG-Offered	YPG-Asked
Level 1			
Age	-.05+	-.05	-.06*
Gender	-.18**	-.18**	-.18*
Parent Education	-.01	-.01	.00
Grades	.02	.02	.02
Participation Intensity	.07***	.08***	.07***
YPG-Asked			.15***
Level 2			
Average age	.10*	.09*	.10*
YPG-Offered		.19**	.17**
Percent variance explained			
Between sites (level-2)	2%	12%	20%
Between youth (level-1)	3%	3%	6%
Chi-square change (from model in previous column)	17***	52***	38***

+ *p* < .10; * *p* < .05; ** *p* < .01; *** *p* < .001
Notes: Cells with primary predictors of interest are shaded gray. Total variance = 25% at level-2, 75% at level-1. In the models in which they appear, age, average age, gender, YPG-Offered, and YPG-Asked are uncentered for interpretation purposes; all other variables are grand mean centered.

Table 3.6

Multilevel Models for Efficacies and Empathy

	Efficacy for Problem Solving			Efficacy for Expression			Empathy		
	Covar	YPG-Offered	YPG-Asked	Covar	YPG-Offered	YPG-Asked	Covar	YPG-Offered	YPG-Asked
Level-1									
Age	-.09***	-.09***	-.10***	-.03	-.03	-.04+	-.08**	-.08**	-.08**
Gender	-.18**	-.18**	-.17**	-.13*	-.13*	-.12*	-.48***	-.48***	-.47***
Parent Education	.00	.00	.01	.01	.01	.02	-.02	-.01	-.01
Grades	-.06**	-.06**	-.06**	-.05*	-.06*	-.06*	-.07**	-.07**	-.07**
Participation Intensity	.06+	.06+	.05+	.05**	.06**	.04*	.09***	.09***	.09***
YPG-Asked			.10***			.13***			.06+
Level-2									
Average age	.11**	.11**	.11**	.05	.05	.06	.08*	.08*	.09*
YPG-Offered		.01	-.01		.13*	.11+		.13*	.12*
Percent variance explained									
Between sites (level-2)	<0%	<0%	<0%	<0%	7%	20%	14%	20%	14%
Between youth (level-1)	7%	7%	8%	2%	2%	3%	11%	11%	12%
Chi-square change	No	No	No	No	Yes	Yes	Yes	Yes	No

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Notes: Cells with primary predictors of interest are shaded gray. In the models in which they appear, age, average age, gender, YPG-Offered, and YPG-Asked are uncentered for interpretation purposes; all other variables are grand mean centered.

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Table 3.7

Multilevel Models with Interactions: YPG-Offered by Average Age 12 or Older

	Motivation		Problem Solving		Expression		Empathy	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Level-1								
Age	-.05*	-.05*	-.08**	-.08**	-.02	-.02	-.07**	-.07**
Gender	-.18**	-.18**	-.17**	-.17**	-.12*	-.12*	-.47***	-.47***
Parent Education	-.00	-.00	.01	.01	.02	.18	-.01	-.01
Grades	.02	.02	-.06**	-.06**	-.06*	-.06*	-.07**	-.07**
Participation Intensity	.07***	.07***	.06+	.06+	.04**	.04**	.09***	.09***
YPG-Asked	.15***	.15***	.09**	.10***	.13***	.14***	.06+	.06*
Level-2								
YPG-Offered	**.16***	**.17+**	**-.01**	**-.14***	**.11+**	**.04**	**.12***	**-.01**
Twelve	**.24+**	**.24+**	**.21**	**.21**	**.00**	**.01**	**.15**	**.16**
YPG-Offered X Twelve		**-.01**		**.26***		**.14**		**.25***
Percent variance expl								
Between sites (L-2)	18%	16%	<0%	<0%	21%	23%	9%	21%
Between youth (L-1)	6%	6%	5%	5%	3%	3%	11%	11%
Chi-square change		NO		YES		YES		YES

+ p < .10; * p < .05; ** p < .01; *** p<.001

Figure 3.1

Summary of Research Questions and Hypotheses

How common?

Hypothesis 1: Involving youth in decisions about physical space arrangement and activities an organization offers for youth will be relatively common whereas, activities that involve a higher degree of control sharing— namely involving youth in leading activities, in staffing decisions, an in formal advisory boards—will be relatively uncommon.

Benefits to participants?

Hypothesis 2: YPG practices lead to positive effects for participating youth.

    a. YPG practices will associate positively with participation motivatior (task value).

    b. YPG practices will associate positively with efficacies (problem solving, expression) and skills (empathy) related to what youth pract in YPG experiences.

How does age matter?

Hypothesis 3: YPG practices are particularly appropriate for adolescents

    a. Voluntariness is positively associated with age of youth.

    b. Provision of YPG practices is positively associated with age of youtl program.

    c. Age acts as moderator in regression models

Figure 3.2

Sample Rubric for Item in YPG-Offered Index (Interviews with Program Directors)

Interview question	Coding		
	Low (1)	Medium (2)	High (3)
How do you determine the format and content of your program offerings? Are youth consulted? If so, how?	No youth are involved in decision-making about the design and use of the physical environment.	Youth are consulted about the design and use of the physical environment.	Youth and adults share the responsibility for decisions about the design and use of the physical environment (e.g., they make plans for furniture arrangement, determine design additions and displays relevant to youth activities).

Figure 3.3

*Confirmatory Factor Analysis for Dependent Variables*

RMSEA=.036
Chi-sq(76) =184.3***
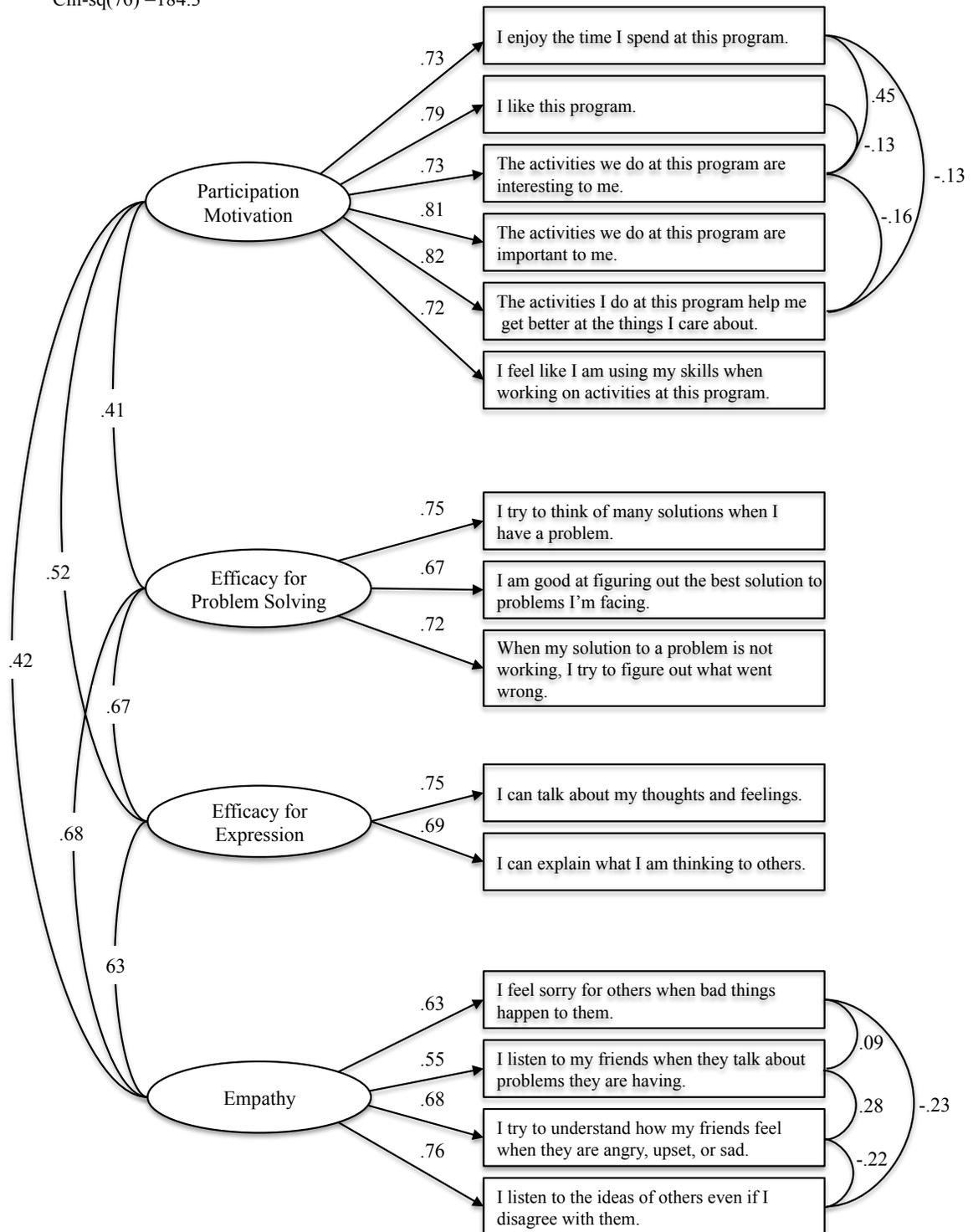
Figure 3.4

*Site Voluntariness Ratio by Average Age*
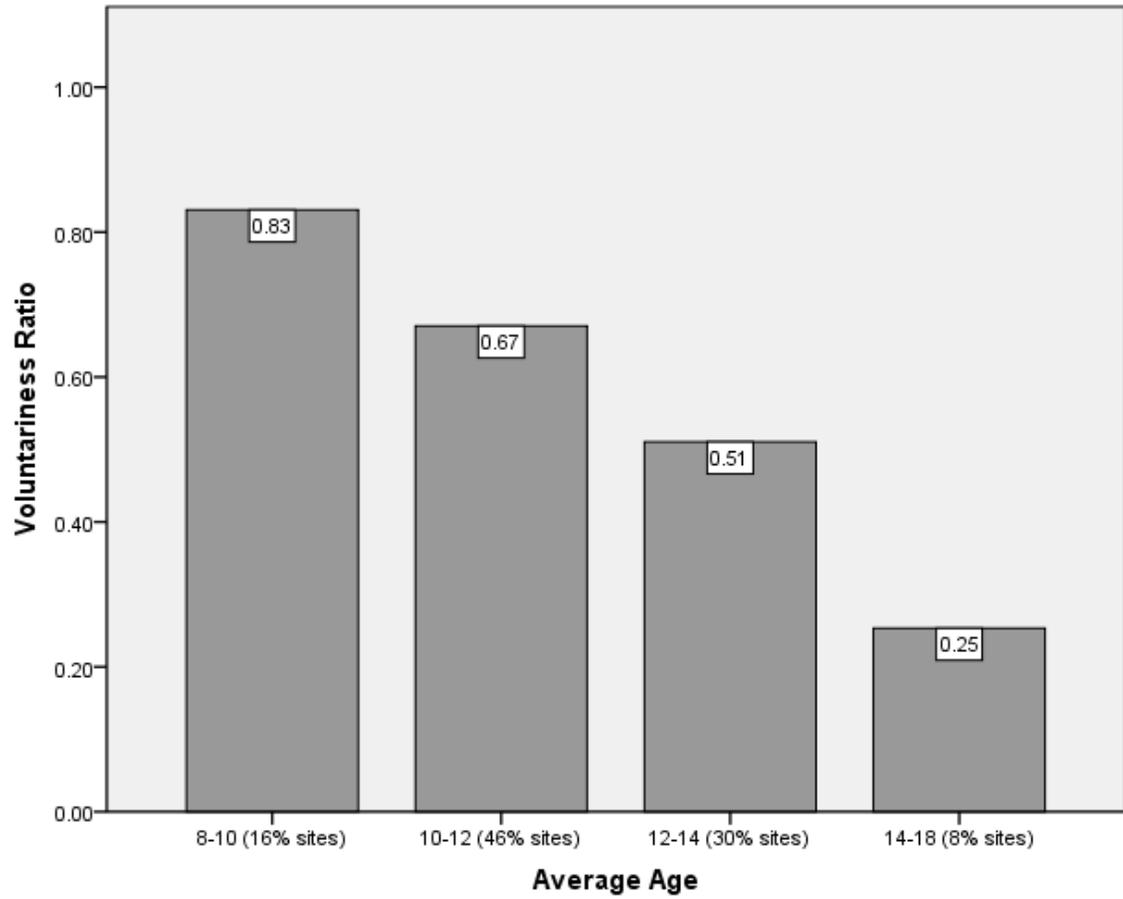
Figure 3.5

YPG by Average Age
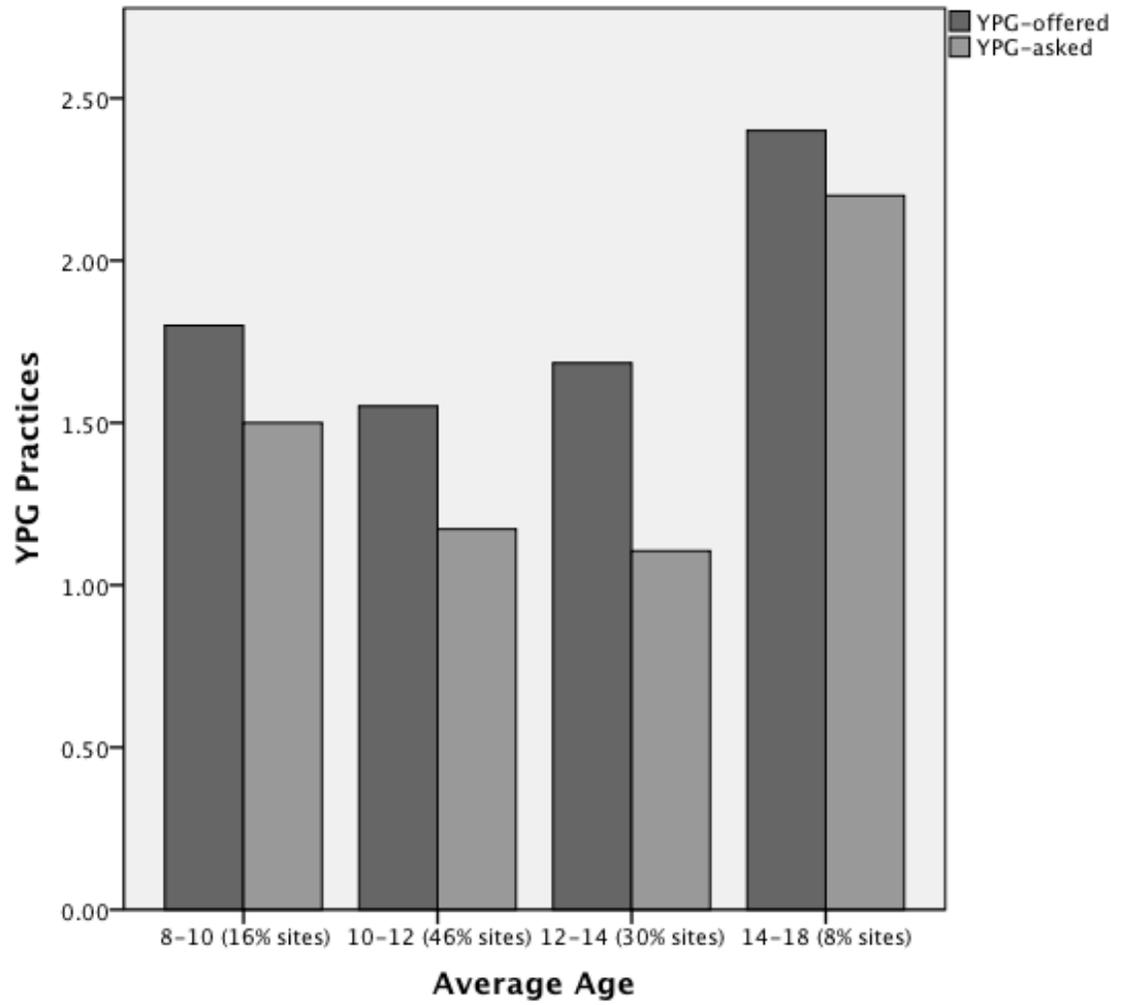
Figure 3.6

Interactions of Average Age by YPG Practices:

Efficacy for Problem Solving and Empathy
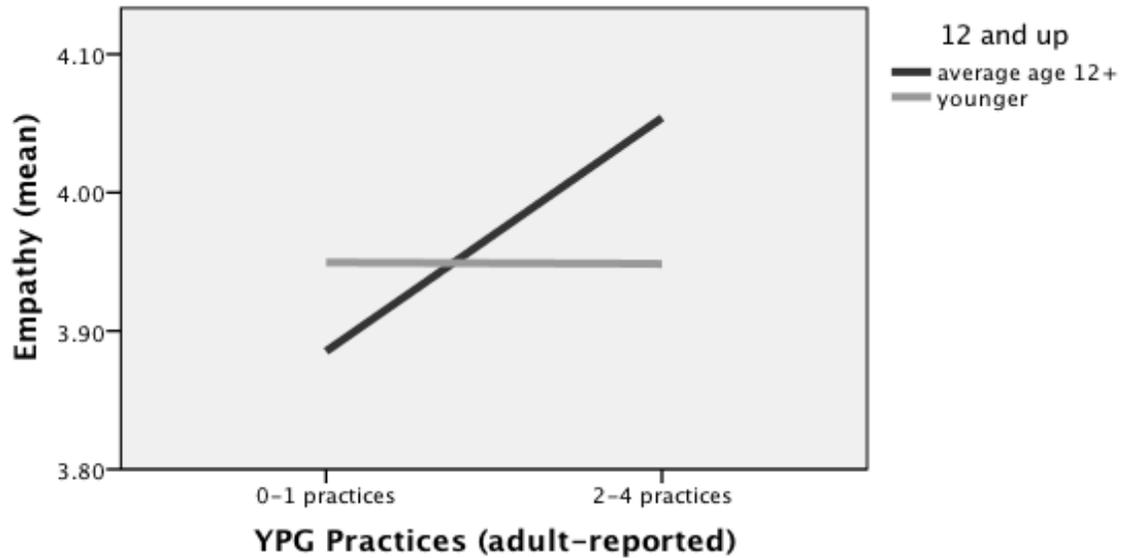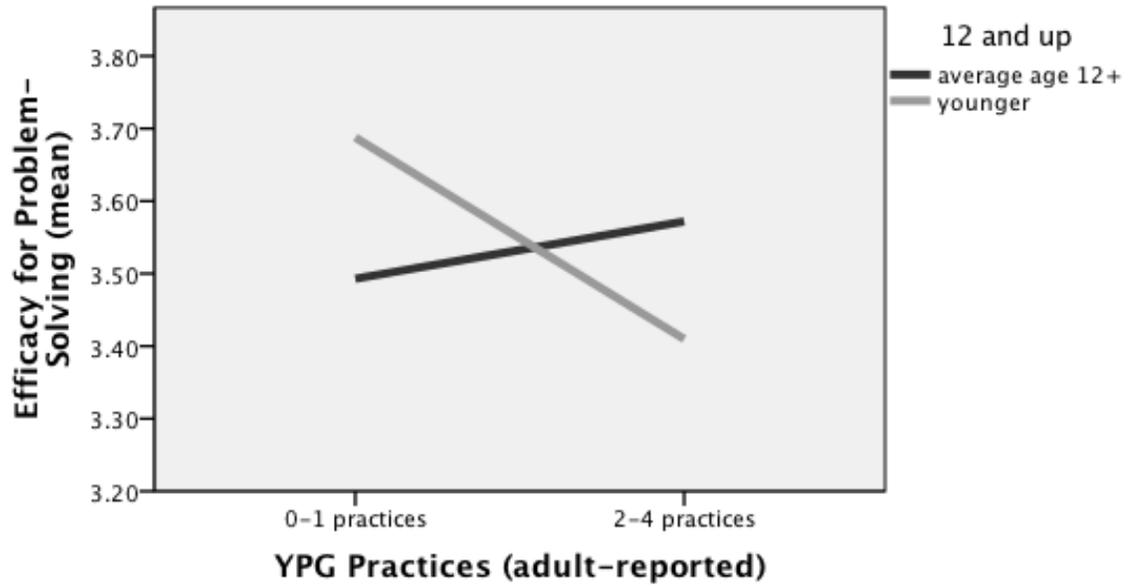
Chapter 4

Conclusion and Future Research

The Findings of This Dissertation

This dissertation began with a description of today's educational landscape, which is rife with both opportunity and challenge. Rapid technological advancement and the flattening of the world (Darling-Hammond, 2010; Friedman, 2005) produce both the context for a changed psychological environment for today's young people, and the possibility of a future with improved learning opportunities for a broad population of children and youth. I argued that an optimized future for education cannot be driven solely by school reform and that organized activities in out-of-school time have an important role to play in young people's educational ecologies—a role that should complement, rather than duplicate, the role of school. In addition, I raised some methodological challenges related to studying voluntary learning environments within an ecological framework, a point I will discuss further below.

The motivation model in Figure 1.2 provided a broad framework for considering the psychological experiences youth have in organized activities that occur during out-of-school time (OST). This model served as an underlying framework for the empirical studies presented in subsequent chapters; two studies in which I investigated youth reports of their program experiences and the program features that affect those experiences. The first study zoomed in on the involvement box in Figure 1.2.

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This study (Chapter 2) includes a conceptual advancement that I hope can contribute to discussions in the field, rooted in a set of recent OST studies that expand the notion of participation beyond dichotomous conceptualizations of enrollment (e.g., Bohnert et al., 2010). I intentionally used the term *involvement* rather than engagement even though my definition of involvement experience is comparable to some definitions of engagement (e.g., Fredricks et al., 2011).[26] With this term I am pushing for a multidimensional understanding of youths' psychological experience in the transactive youth-in-context microsystem, i.e., the point of service (Smith & Akiva, 2008). That is, involvement experience includes multiple psychological aspects of a young person's participation and their in-the-moment reactions to an organized activity. Indeed, findings from Chapter 2 suggest that program features associate differentially with aspects of youth involvement experience: Skill-building practices align with cognitive engagement; whereas welcoming practices associate with feelings of belonging. This study yielded two other findings of note: (a) skill-building practices only seem to associate positively with cognitive engagement when they are implemented fully or well, and (b) youth-in-context systems differ across content areas.

The study in Chapter 3 focused on the practice of sharing control with youth in learning settings. In this study I investigated youth-in-program governance (YPG), which, framed by the motivational model in Figure 1.2, is an environmental feature designed to promote youth influence and involvement in the youth-in-context system. I

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[26] I chose involvement over engagement for two main reasons: first, engagement is used in multiple ways both colloquially and in research, which means that readers have understandings or biases that may not align with the construct I wish to present. Second, despite this wide usage, the term engagement may connote a limited meaning—for example, 'paying attention'; whereas I'm interested in a more comprehensive look at psychological reactions to and participation in the youth-in-context system.

found that YPG relates positively to several youth-level motivational variables that align with Expectancy-Value Theory (Wigfield & Eccles, 2000)—a positive task value association with the program and self-efficacies related to leadership skills. Study findings suggest that aspects of YPG that involve power sharing with youth are relatively uncommon. Findings also suggest that degree of voluntariness appears to be dependent on age—the older the youth participants, the more likely they have chosen to be there. This finding springs from a simple descriptive statistic but is important for both theoretical and methodological considerations related to informal or *semi*-formal learning environments. An implication is that the arguments I made in the first chapter about voluntariness in organized activities pertain more to older youth.[27] The dissertation findings as a whole speak to the features in transactive youth-in-context systems that may make a difference for motivation and perhaps for learning.

Important Features of the Youth-in-Context System in Learning Settings.

OST contexts are a particular form of a broader class of contexts; namely, learning settings. My overall interest is in the consequences of setting features on the motivational and psychological contexts of learning settings. OST contexts provide an example of learning settings with a different motivational context than schools. As depicted in Figure 1.1, school is the learning setting that most humans spend the most time in; yet it represents a relatively small portion of such settings a person encounters throughout their lives. From a motivation perspective, schools offer a rather unique type of learning setting because of their extrinsic contingencies—required attendance, examinations and

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[27] This statement only holds true when voluntariness is defined in terms of individual youth volition. If voluntariness is defined with the *family* as the unit of measurement, a much higher proportion of participation would be considered voluntary—i.e., the parents and/or child choose for the child to attend.

grades, content expectations (discussed further in challenges section below). Because of this, school may represent a very different context from the learning settings more commonly encountered throughout the lifespan; organized activities may be more representative.

In Chapter 2, I noted how Lerner (2004) has referred to the "big three" features of effective youth-serving programs: positive and sustained adult-youth relationships, skill-building activities, and youth participation and leadership.[28] My studies lend support and provide conceptual shaping for each of these features:

Sustained adult-youth relationships. The duration of adult-youth relationships may be important; however, in my motivation model (Figure 1.2), involvement experience has an important slice-of-time aspect: in the moment of involvement in a youth program offering, what matters for youth is their relationship-related experiences of that moment—their feelings of belonging, mattering, being part of a group, feeling supported, etc. Certainly these in-the-moment experiences are shaped by past experiences such as the lastingness of their relationships with adults; however, findings from Chapter 2 suggest that simple staff welcoming practices correlate significantly with youth reports of belongingness. Simple day-to-day welcoming practices may make a difference in youth reactions to OST settings and presumably would have an impact on the formation of lasting relationships.

Skill-building activities. The study in Chapter 2 delineates specific, tangible staff

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[28] Lerner argues that in multiple reviews of features that matter, including Eccles and Gootman (2002), these three ideas consistently appear. However, the definitions and descriptions of the "big three" are somewhat inconsistent across publications, particularly regarding the 3rd feature. For example, in one report the 3rd feature is listed as "Opportunities for youth to use these life skills as both participants in and as leaders of valued community activities" (Lerner, Lerner, & colleagues, 2011, p. 5), arguably a different feature than "youth participation and leadership" presented in other documents.

practices that support the feature of support for skill-building. Skill-building practices, defined as providing opportunities for skill-building and actively supporting youth in those experiences (See Figure 2.5), correlated with youth reports of cognitive engagement. These practices were not uncommon but far from universal (mean of 3.92 on 5-point scale; see Table 2.1) and could certainly be strengthened in many youth programs. The curvilinear nature of the correlation suggests that the positive link between these practices and youth cognitive engagement only exists when the practices are fully carried out, a further specification of how this feature may play out in youth-in-context systems.

Youth participation and leadership. Based on the findings in this dissertation, my understanding of this 3rd feature, related to provision of opportunities for participation and leadership, has shifted and expanded. The feature has been described in different ways across publications (see footnote 3) so perhaps the field is still wrestling with its conceptualization. At its core this feature is fundamentally different from the other two. The other two features can be interpreted from a "youth-as-recipients" perspective—that is, adults create an environment that is supportive and learning-rich, and youth *receive* this environment. In this perspective, youth are consumers of adult-created programs. However, the 3rd feature demands a perspective more in accordance with the positive youth development perspective with youth as co-participants (e.g., Lerner, Lerner, & Benson, 2011). Note that a wide assortment of motivation and learning theories include learner agency as a key component, including Self-Determination Theory (Deci & Ryan, 2008), Choice theory (Glasser, 1998), Drive theory (Pink, 2009), and Piaget's constructivist approach (Piaget, 1954). The idea also fits the civic notion discussed in

Chapter 3 that youth, as citizens in a democratic society, have a fundamental right to shape the environments that matter to them.

I now conceptualize the 3rd feature as opportunities and supports for youth to be active co-creators in the youth-in-context system. In Chapter 2, the observed staff practice of providing choices the content and process of activities showed no correlation with any of the youth variables; this echoes the findings of Pierce et al. (2010), in which provision of choice was not associated with academic or social outcomes (positive staff-child relations and availability of age-appropriate activities were both positively associated with academic outcomes). Neither was the provision of leadership significantly correlated with the youth outcomes I investigated, although leadership did show a zero-order correlation with belonging. At a superficial level, these findings seem to suggest that this feature lacks importance. Perhaps, however, these simple provisions are not indicative of youth participation. Chapter 3 focuses on YPG, a more in-depth measure of participation, and the expected positive associations were present. Youth involvement in organizational-level decision-making and leadership appears to correlate with several youth experiences including motivation to participate and self-efficacies associated with leadership.

I continue to wrestle with the meaning of this feature and why it might matter for youth. YPG as fulfilling an autonomy need, per a Self-Determination Theory interpretation (cf. "autonomy-supportive" teaching practices in Guay et al., 2008), does not quite fit. Youth in successful YPG situations aren't necessarily experiencing autonomy or independence—they are working with a team of peers and likely experiencing adult-youth partnerships. YPG as a context for developing youth strategic

thinking may be more accurate (Larson & Angus, 2011); however, this doesn't really get at youth motivations to do this. The Expectancy-Value approach provides a useful framework for this consideration; however, more is to be learned about why YPG may increase task value for participation. In any case, thinking through the challenge of understanding this 3rd feature has led to questioning about the fundamental functions of youths' educational ecologies.

"Learning"[29] Versus Citizen Development. During job talk visits this spring I was asked many variations of 'the theory question': *What theory do you work from?* I found the theory question difficult to answer because my work is broadly focused, concerned with multiple aspects of OST learning. I identify within educational psychology—a field primarily concerned with schools—but do not focus directly on schools. Therefore I find ecological approaches important for describing my perspective. That is, as I described in Chapter 1, my approach is rooted in relational developmental systems perspectives (Bronfenbrenner & Morris, 2006; Lerner, Lerner, & Benson, 2011) in which youth develop and learn within an educational ecology made up of multiple transactional systems including family, school, and out-of-school time programs. But this is more of a perspective than a theory. Several theories provide valuable insights regarding learning and motivation in OST youth-in-context system; most notably, Expectancy-Value Theory, Optimal Experience (Flow) Theory, Piaget's Equilibration Theory, Vygotsky's Zone of Proximal Development concept, Stage-Environment fit, and

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[29] The title of this section is somewhat ambiguous because, of course, citizen development involves learning. The term learning here is used as a sort of shorthand for the type of learning currently valued in school, which is primarily literacy and STEM. Or perhaps skills related to being a successful working adult—in contrast to 'citizen development', used as shorthand for learning related to being a productive contributor to a democratic society.

Critical Theory. But answering the theory question with a list like this is not ideal.

In the process of writing the introduction to Chapter 3, I experienced a moment of insight related to the theory question. This occurred when I was attempting to provide theoretical background for considering YPG practices. I stopped trying to pick a single theory to represent this work but instead considered YPG practice from several perspectives: developmental, motivational, educational, and social justice. These four perspectives can be further reduced into a fundamental distinction between *educating* young people to be productive workers and *preparing* young people to be citizens in a democratic society. The insight was that I have a strong—perhaps primary—research interest in innovations that meet the goals of both perspectives. That is innovations that help young people learn to be successful adults (go to college if desired, get a good job, have a decent life) and that also help young people become thoughtful citizens in our democratic society (vote, serve society, have concern for other citizens) and in the world society.

Histories of public schooling in America describe the early twentieth century as a time in which a major function of schooling was to assimilate European immigrants' children (e.g., Graham, 2005; Tyack & Cuban, 1995). Perhaps in these years the role of school—particularly public school—as an institution for preparing future citizens was more visible. Now, however, a great deal of educational dialog centers on achievement and global competition. This focus is reflected in school research: citizen development may be considered almost a sideline pursuit in education.[30] The concern of development of the citizenry continues to be addressed in human service fields—public health, social

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[30] Support for social studies, which is arguably the most direct school subject related to citizen development, is not on par with current pushes to strengthen literacy and STEM education.

work, etc.; for example, several researchers working on civic engagement have influenced my thinking: Brian Christens, Matt Diemer, Connie Flanagan, and Shepherd Zeldin. However, the crossover to education is not prevalent.

The good news is that the goals of academic learning and promoting positive citizenship can be compatible. In fact, it is in the interest of the society to have a well-educated citizenry. Innovations at the intersection of civic and academic learning abound. For example, Noddings (2006) offers school reform suggestions that would address the goals of both education an citizen development through teaching of critical and reflective thinking using topics that are authentic and relevant to understanding our current world. For example she suggests addressing topics of learning and self-understanding, the psychology of war, and how to create a home. Such topics are potentially more controversial than traditional academic high school topics of literature and writing, math, and science, but arguably as or more useful for leading a successful life as a citizen. In OST, the YPG approach described in Chapter 3 is one such innovation, and another, which I hope to study, is involving youth in community asset mapping.[31]

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[31] Community asset mapping is the first step in Asset-Based Community Development (ABCD), a fairly well delineated idea with extant scholarly and how-to literature (Kretzman & McKnight, 1993; McKnight, 2010). Involving *youth* in asset mapping and the learning effects of such involvement, however, has been less examined. I have located three studies that investigated educational benefits for participants in community asset mapping; all use qualitative designs and all find benefits for participants related to understanding the resources and barriers in a community and related to skill learning (e.g., problem-solving) (Handy, Rodgers, & Schwieterman, 2011; Robinson et al., 2004; Santo, Ferguson, & Trippel, 2010). Studies of youth in asset mapping are at a point where they could benefit from quantitative and mixed methods examination of potential learning gains—in areas both related to civic development and to skill learning.

Methodological Challenges and Opportunities for the Study of OST

Learning. I have described my research focus as ecological; as focused on broad conceptualizations of motivation, learning, and civic development; and as concerned with multiple aspects of the youth-in-context system. This focus presents several methodological challenges, of which I will highlight three. First is the challenge of working within an ecological system. Although Hierarchical Linear Modeling has provided great advancement for the studying of nested systems such as youth within youth programs, settings across an educational ecology are *heterarchical*. That is, settings such as school, OST, and home overlap in multiple ways. Qualitative approaches can be used to investigate ecological systems but I am also interested in capitalizing on quantitative methods—in developing a mixed methodological career. Techniques for addressing this challenge exist; for example, employing multiple baseline designs for assessing community change. However, it will take clever designs and additional methodological learning to conduct research that is compatible with my theoretical perspective.

The second challenge involves the voluntary nature of attendance and participation in youth program activities. I introduced this methodological challenge in Chapter 1, and in Chapter 3, I examined how youth perceptions of the voluntariness of their participation in youth programs is linearly related to age. Voluntariness may be a direct area of study. That is, a youth program can be a learning context that is free from the extrinsic contingencies inherent in schools: no grades, no mandated attendance, and fewer content restrictions. In this sense they may serve as laboratories for studying motivation and learning in an environment that is not tied to the educational system we

have inherited. For example, studies of how features of OST settings influence youths'

motivational decisions to participate may ultimately provide insights that can be applied

the less voluntary learning settings of schools. When voluntariness is not the focus of

study it can be an impediment to assessing causality by introducing selection bias.

Techniques for overcoming this challenge exist, such as randomizing within an

oversubscribed sample. However, as with the first challenge, progress will require careful

research design and clever application of analytic techniques.

Importantly, I share the first two challenges—heterarchical systems and

voluntariness—with researchers who study informal learning environments like those

that occur in art, science, and children's museums. Informal learning contexts and OST

contexts have largely been studied by two separate research traditions.[32] However, these

settings are more similar than different. For example, in an article that focuses on

learning in art museums, Knutson, Crowley, Russell, and Steiner (2011) use the term

learning ecology exactly as I have defined it in this dissertation. It is likely that the work

of OST researchers like myself will benefit greatly from partnerships with learning

scientists studying informal learning settings.

The third methodological challenge may be more of a goal than an obstacle. My

research interests ultimately stem from my experience as a camp director over a decade

ago. The camp I directed, the HighScope Institute for IDEAS, offered workshops in the

arts and sciences for teenagers from around the world (Ilfeld, 1996). This month-long

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[32] Their distinct funding streams evidence the separateness of these research traditions. OST studies are primarily funded by the Institute of Educational Science and the National Institute of Health; whereas, museum studies are often funded by the National Science Foundation. The W.T. Grant foundation provides an exception in that it has funded both types of research and brought researchers from both traditions together through scholar community meetings (K. Crowley, personal communication, April 27, 2012).

program for teens shared many features with other summer camps: room groups, large-group evening programs, a swimming pond, songs at meals, etc. Many youth participants were from low socioeconomic backgrounds and most had never had a comparable camp experience. In my seven years of association with this program as staff member and director, I encountered overwhelming anecdotal evidence that the program produced *turning points* for many of the young participants. Campers regularly stated how it changed their lives in multiple ways. But perhaps more compellingly, alumni of the program report turning point experiences as well; for example, one alumni who attended this camp in the mid-1970s credits it with completely reshaping his educational aspirations and keeping him from dropping out of school (E. Kaupi, personal communication, August 17, 2009). So the third methodological challenge is how to find and study turning point experiences that occur through organized activities. I suspect these occur in a small fraction of the OST programs out there, and camps may be a good place to start looking. The challenge includes: defining turning point experiences and outcomes; the necessity for and funding demands of longitudinal research designs; and the first two challenges described above.

All research has challenges and these three are not insurmountable. As I highlighted in the first chapter, recent years have seen increasing participation and research interest in organized activities. I feel humbled and privileged to have the opportunity to join the cohort of researchers addressing this topic.

Future directions

If my dissertation readers will forgive what may appear to be a diversion, I will devote space here to consideration of my development and potential future as a PhD

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researcher. I began my doctoral studies with some ambivalence, primarily based on unfair

biases I held against the academy. Although I was attracted to and appreciated the value

of research, I was concerned about ivory tower syndrome[33]; specifically, I worried that

five or more years of doctoral studies would remove me from contact with kids, make me

out-of-touch with the day-to-day realities of learning and development, and reduce my

conviction to act on the educational principles I believed in. I would lose the intuition that

develops from spending time with youth in context and replace it with paralyzing,

relativistic beliefs. In truth, some of this *has* happened, though not quite in the ways I

worried about. My graduate studies have made me acutely aware of the uncertainty of

beliefs in which we may have great confidence. But these changes have not resulted in a

relativistic impotence. Instead they have led to a strong desire to develop a steady, careful

research approach that targets the applied questions I find important, yet honors the

limitations and realities of scientific progress (and the limitations of human intuition).

　　To expand on this topic, consider two ends of a spectrum. On one end is

Practitioner Pete, who has great annoyance and disregard for the caveats that researchers

always present with their findings. Pete believes fully in the statement: "We know what is

good for kids—we just have to get adults to do it". Pete's argument is compelling; it is

reasonable to assume that decades of educational research have produced ample

understanding of teaching and learning. Pete believes that administrators and the

structures of society (outdated notions of school, adultism, capitalism, racism, etc.) get in

the way of educational optimization. There is nothing really left to learn about learning

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[33] The online urban dictionary (*www.urbandictionary.com*) defines ivory tower as: "A disparaging term that refers to elitist detachment from, and especially criticism of the everyday world, or of common sense and beliefs."

and development; we should put therefore all of our energies into change movements. When Pete encounters a practitioner with differing views—for example, one with a belief in the value of direct instruction—he simply believes the other practitioner is wrong or not yet enlightened.

At the other end of the spectrum is *Researcher Ruth*, who maintains an idealized belief in knowledge for knowledge's sake and scientific advancement through slow, careful application of the scientific method (conducted by scientists striving to be unbiased). Ruth's perspective, too, has a lot going for it: she subscribes to a linear view of steady progress, and her principles rest on copious evidence that the scientific method yields advancements. I assume Ruth shares her fundamental motivation with many researchers: A conviction that ultimately the scientific pursuit of knowledge will better humankind. Ruth's method requires a great deal of her attention—she sometimes finds herself lost in methodology and the trappings of scientific pursuit itself to the exclusion of the practical needs of the field she serves: education. She believes that her methods yield greater truth than intuition and is disparaging of practitioners that ignore or disregard research findings.

Neither Pete nor Ruth ask each other questions: Pete does not ask Ruth what she knows and Ruth does not ask Pete what research-able questions he has. Both experience pressures to remain within their worldviews. But they *could* ask each other questions. They *could* perhaps find a way to work together with respect and mutual benefit.

Although the Pete/Ruth spectrum is illustrative, this metaphor does not allow for a study to be *both* theoretical and applied. An alternative can be found within the matrix proposed by Stokes (Figure 4.1), which separates considerations of use and quest for

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fundamental understanding (in Schoenfeld, 1999). The top right cell of Figure 4.1—"use inspired basic research"—is a place for research, like that of Louis Pasteur, which is concerned both with practical application and with scientific learning. These are not new ideas; but I discussed them here in order to keep these applied/basic research issues at the forefront of consideration of future directions.

Putting it all together. In my consideration of future directions, I have landed on three goals to guide my future work related to the investigations in this dissertation. First is the idea presented in the previous section: I wish to study innovations at the intersection of academic learning and citizen development. Second are the ideas discussed in the present section: I aim to develop an applied approach that honors the constraints of the scientific method. I have not yet directly discussed the third goal, which is to shape research designs that uncover findings that are generalizable beyond their context. In education, there is a pull to evaluate the hottest new innovations, as if new ideas are independent from ideas of the past and from other fields. This pull may be in conflict with pursuit of understanding underlying mechanisms. As a young researcher my lack of experience may prevent me from seeing underlying connections across contexts and fields of study. But ultimately, I aim not to just to publish a collection of disconnected studies but, rather, to develop a set of pursuits that is rooted in cross-disciplinary understanding and aims to advance science. This means identifying research topics that may apply across settings, such as relationship building, autonomy support, motivation to engage in learning, etc.

It is an exciting time to be a researcher focused on OST learning settings. As mentioned earlier, my research focus crosses over into several contexts and areas of study

including positive youth development, learning science, and community psychology. It also involves a group of individuals with a set of issues I have not directly addressed in this dissertation. I am referring to youth workers—adults who work with youth—a typically low-paid group with lower professional status even than teachers. Front-line youth workers are usually the adults that most shape the features of youth-in-context settings discussed in this dissertation. A complete understanding of youth-in-context systems must account for this workforce. Researchers have an important role to play if OST settings are to become, as I suggested in the introduction, important contexts in youth people's educational ecologies. I hope the findings of this dissertation can contribute to these pursuits.

Figure 4.1

Stokes' Research Representation (from Schoenfeld, 1999)

Considerations of Use?

		No	Yes
Quest for Fundamental Understanding?	Yes	Pure Basic Research	Use-Inspired Basic Research
	No		Pure Applied Research

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