Involving Youth in Running Youth Programs: How Common and What Might it Do for Youth?

Researchers have argued that autonomy in learning settings can have motivational and educational benefits (Deci & Ryan, 2000). Student autonomy in schools may be supported in several ways including provision of academic choice (Denton, 2005), student voice (Mitra, 2006), 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 limits autonomy (Brophy, 2004). That is, support for autonomy may always be limited in a school context in which youth do not have a reasonable say in whether or not they have to be there.

Informal learning environments such as teen centers and afterschool programs feature flexible content and largely voluntary attendance, foundational features which may underlie true autonomy. In such spaces, the operation of the program itself may be used as a context for learning and development—referred to here as youth program governance (YPG) practices. 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. YPG may be considered a subset of *youth-in-governance*, which is defined to include youth participation both in civic governance and program governance (Bowie & Bronte-Tinkew, 2008, June; Mantooth, 2008).

YPG practices and related ideas are extolled in youth development literature (O'Donoghue, Kirshner, & McLaughlin, 2006).[1] Numerous practitioner websites promote YPG and closely related practices.[2] National 4-H is perhaps 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. However, with the exception of these studies and two reports described below, few research studies have investigated YPG or youth-in-governance.

Although the provision of YPG opportunities is presumably relatively new 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

[1] 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. For discussion see Contexts in which youth participation has been promoted include: youth councils, participatory action research, youth-led media, and government from local to national levels.

[2] Websites that promote 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*).

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, Russell, Low, & Romash, 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.

Sharing Power

In 1993, UNICEF researcher Roger Hart conducted 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 considerably in practitioner youth development research (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 as citizens (Hart, 1993, p.3). Hart cautions that youth participation 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 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 challenging adults—particularly for adult youth workers who may have relatively little institutional power themselves (Camino, 2000).

Potential Outcomes for Youth

The limited research on YPG suggests that it may lead to increases in youth regard for the program, and in cognitive and socioemotional skills related to leadership—that is 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 regard for 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

In the present study I use a cross-sectional, nested dataset to investigate prevalence and correlates of YPG practices. The study is driven by two research questions. First, *How common are YPG in general, multi-purpose afterschool programs?* Although literature suggests that YPG practices are becoming increasingly common in youth programs, I hypothesize that the prevalence of individual YPG practices will vary in terms of 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 an organization offers for youth should be relatively common; whereas, activities that involve a higher degree of control sharing—namely involving youth in leading activities, in staffing decisions, and in formal advisory boards—will be relatively uncommon (Hypothesis 1). As assessment of the prevalence of YPG may depend on respondent, I will compare adult (program director) and youth reports of whether YPG practices occur.

The second research question is: *What do YPG experiences do for youth?* I hypothesize that YPG practices exhibit positive motivational effects for participants relative to their program participation, and thus youth will have a higher regard for programs that implement such practices (Hypothesis 2). In addition, youth participation in making substantive, authentic program decisions may have beneficial effects for socioemotional and cognitive skill-building. Specifically, I hypothesize that YPG practices will be have positively linear correlations with youth-reported communication skills, empathy, and problem solving skills (Hypothesis 3). As practitioner literature promotes YPG practices primarily for high-school adolescents, I predict a moderator relationship such that relationships between YPG and dependent variables are higher for older youth (Hypothesis 4).

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).[3] 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 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 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 11.8 (SD=2.0; range 10-18). 47% of the youth were female. 47.6% reported that their parents had college degrees.

[3] 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.

Measures

All youth measures below 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). Adult program director measures are from interviews conducted by telephone with the directors or managers of youth programs (N=63).

Youth program governance practices—adult and youth reports. Program site provision of YPG practices was assessed from two sources: adult program director interviews and youth surveys. The *YPG-adult* measure, a YPG practices index was created by coding site administrator 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. Construction of the index is described below in data reduction. For the *YPG-Youth* index, youth were also asked an identical set of items, but with the stem, "I have been asked to provide input on…". The response scale for youth was: no, once, or more than once. Construction of this index is also described below in data reduction.

Program regard. A set of 10 items make up the youth program regard scale (alpha=.91), related to valence of attitudes about the program. Example items "I like this program", "I feel like I am using my skills when working on activities at this program".

Youth socioemotional and cognitive skills. Three scales were included to address socioemotional and cognitive skills. *Empathy* (4 items; alpha = .75; "I try to understand how my friends feel when they are angry, upset, or sad") and *Communication Skills* (3 items; alpha = .69; "I can explain what I am thinking to others") are included to address social competencies important for success and functioning (cf, SEL @ CASEL). *Problem solving* (6 items; alpha = .81; "I try to think of many solutions when I have a problem") is included to address cognitive/executive domains.

Covariates. Several youth-level covariates were used in analyses, including *age; gender; participation intensity*, which is self-reported frequency of participation; *parent education*, which is parents' highest education on a 4-point scale; and *grades*, which is self-reported on an 8-point scale (1=Mostly D's and F's; 8=Mostly A's). *Average age* by programs site was also computed, to be used at level-2 in HLM models.

Data Analytic Strategy

Missing data. The original datasets contained 1122 youth surveys (level-1) and 74 supervisor interviews (level-2); however, not all data corresponded 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. All level-1 cases were retained for single-level analyses. Cases with no cross-level corresponding cases were removed for multilevel analyses (n=63 sites; 979 youth).

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, King, & Blackwell, 2010) using bootstrap-based expectancy maximation method.

Data reduction. Interviewers asked managers five questions related to YPG practices. Interviewers recorded answers and later coded these answers into scores of low, medium, or high based on a written rubric. 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. So all items were recoded as 0 and 1, with collapsed categories highlighted in Table 1. Youth responded to similar questions, indicating their participation in such activities: never, once, or more than once. Based on the conservative assumption that even one time constituted presence of the practice, youth measures were dichotomized such that 0 indicates never, and 1 indicates one or more times (see Table 1).

Analysis. Prevalence of YPG practices (hypothesis 1) and agreement across sources were investigated by examining frequencies of scores on the *YPG-adult* and *YPG-youth* practice composites and on individual items. Relationships between YPG practices and youth program regard and related skills were addressed for both adult and youth reports of these practices. Ordinary Least Squares (OLS) regression was used for *YPG-youth* reports, and Hierarchical Linear Modelling (HLM) for *YPG-adult* reports. Both OLS and HLM were used to investigate age as a moderator.

Results

Correlations

Table 2 presents bivariate correlations for all level-1 variables. Dependent variables correlate with each other from r = .36 to r = .53. The only relatively large correlation with YPG-Youth is for program regard (r=.31). The only other correlations greater that r=.20 are among covariates: parent education with age (r = -.25) and grades (r = .26), and age with grades (-.28).

Prevalence of YPG Practices

Table 1 presents survey results related to prevalence of program practices. Overall patterns between program directors and youth are relatively similar. As predicted, involving youth in deciding format and content of activities is relatively common in this sample (92% directors; 89% youth) and the higher control sharing practices of activity leadership, staffing decisions, and program governance are relatively uncommon (20-25% directors; 3-15% youth). Contrary to the hypothesis, input on physical setup is uncommon (32% directors, 21% youth).

Prior to dichotomization, correlations between adult and average youth reports of most individual YPG practices are low: activities (r = .13), physical setup (r = .07), staffing (r = .06). Only program governance shows slight correspondence between reporters (r = .27*). There is considerably more agreement when dichotomized into binary variables. As shown in Table 3, agreement between adults and youth range from 68-83%. When indices are computed with these 4 items; that is, a YPG index from director reports and a separate YPG index from youth reports, the two correlate at r = .33**. Taking the aggregation a final step further, comparing director reports of 3 or more practices (vs 0-2 practices) to youth reports of the same, adults and youth agreed 84% of the time (50 low; 3 high) and disagreed 16% of the time (9 times adults said high and youth said low; 1 time youth said high and adults said low).

Association of YPG Practices with youth regard for program and skills

Table 4 presents results of four multilevel models using the YPG-Adult measure (unstandardized), each model using a separate dependent variable. As predicted, YPG-Adult was positively and significantly related to program regard such that an increase in one of the four practices in the index is associated with a fifth of a standard deviation increase in program regard. A one-point change in YPG-Adult was also associated with about a tenth of a SD change in empathy and communication. The YPG-Adult measure did not predict problem-solving.

Age shows significant effects with both empathy and problem-solving. In both cases, when the average age is higher, youth rate their skills in these areas slightly higher. Also in both cases, with average age controlled for, older youth tend to rate their empathy and 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 all of these dependent variables lower. Most substantial, males on average indicate empathy that is nearly half a standard deviation lower than females. Grades have very small but significant positive relationships with empathy, communication, and problem-solving. Participation intensity has a small but consistent positive relationship with the dependent variables such that youth who report coming more frequently, tend to score higher in all of these areas.

Table 5 presents OLS regressions for the same four dependent variables, but with YPG-youth as the predictor of interest. The YPG-Youth index yields a positive, significant coefficient for all four dependent variables. The coefficient for YPG in the program regard model is substantially larger than with the others, indicating that an increase in one practice corresponds with a 3/10 standard deviation increase in program regard. For communication and problem solving, the increase is approximately 2/10 SD, and less than 1/10 SD for empathy. Covariate relationships show similar patterns to those found in the YPG-Adult models.

Age as Moderator

To test for moderation effects in the HLM models, average age (level-2) was removed, age (level-1) was allowed to vary randomly, and YPG-Adult was included as a predictor for the age-outcome slope (as well as a predictor for each dependent variable). The only other difference is that in these models, presented in Table 6, the three variables related to the interaction (age, YPG-Adult, and YPG-Adult by age) are grand mean centered. Age demonstrates statistically significant moderation in the cases of empathy and problem solving. In the case of empathy, as expected, as youth were older in age, the association between YPG-Adult and empathy increases in size. A simplified depiction of this for empathy is shown in Figure 1, which shows average empathy for sites with low and high YPG practices, divided into programs with average ages above 13 and 13 and under. For problem-solving, the interaction is significant (though very small) while the main effects are not. This may indicate that problem-solving has relatively no relationships with YPG practices for younger youth, but may have a small positive relationship for older youth. All of these models explained more variance than the models in Table 4, and showed significant improvements in chi-square change for model fit.

Similar models were conducted with YPG-youth as predictor; however, the interaction term (YPG-youth x age) was not a significant predictor in any model.

Discussion

This study investigated the prevalence and correlates of YPG practices in a cross-sectional dataset of 979 youth nested in 63 program sites. Support was found for Hypothesis 1, which suggested that the prevalence of YPG practices would vary by the amount of power-sharing each practice would entail. Specifically, findings suggested that youth decision-making regarding the activities offered is relatively common (77% youth report; 94% adult report); whereas, opportunities to lead activities, to play roles in staffing decisions, and to participate in program governance bodies appear to be less common (20-40%). YPG Practices, as reported both by adults and by youth, were relatively strong predictors of youth regard for program, providing support for Hypothesis 2. Regarding Hypothesis 3, YPG had a relatively small but consistent positive relationship with the socioemotional skills of empathy and communication. Findings for the cognitive skill of problem solving were mixed—only the model predicting youth

reported YPG showed a significant relationship. Mixed results were found regarding Hypothesis 4; age appears to show a significant positive moderation effects such that the correlation of YPG practices (as reported by adults) with empathy and with problem-solving increases with age.

The sample for these analyses reflected multi-purpose programs of reasonable size and stability, with an average age a little younger than might be optimal for this investigation. Because of this, perhaps it should not be surprising that practices involving meaningful sharing of power with youth were relatively rare. Nevertheless, the patterns are interesting. These analyses suggest that sharing decision making about what activities to offer is relatively common in youth programs. This is made possible because of flexibility of content, a feature less likely to be found in schools. Involvement in decisions about physical setup were surprisingly low; however, this may to some extent reflect physical plant restrictions (i.e., 21st CCLCs that operate in school classrooms may not be able to move furniture or hang things on the wall).

Regarding the correlations between YPG practices and youth program regard and skills, as these are correlational analyses, a few causal interpretations are possible. It could be that, (a) as hypothesized, provision of YPG opportunities cause youth to like the program more and, to a lesser extent, cause their social emotional, and cognitive skills to increase. Or, it could be that selection effects produce the correlations, i.e., (b) youth who tend to have high regard for programs seek out ones with YPG opportunities and similarly for youth with higher empathy, communication skills, and problem-solving skills (or beliefs about these skills). It is also possible that some combination of (a) and (b) are occurring. Future work investigating these interpretations could be of great benefit.

References

Apple, M. W., & Beane, J. A. (2007). *Democratic schools: Lessons in powerful education, 2nd Ed.* Portsmouth, NH: Heinemann.

Bowie, L., & Bronte-Tinkew, J. (2008, June). Youth governance: How and why it can help out-of-school time programs involve at-risk youth *Research-to-results brief*. Washington, DC: Child Trends.

Brophy, J. (2004). *Motivating students to learn.* . Mahwah, NJ: Erlbaum.

Camino, L. A. (2000). Youth-adult partnerships: Entering new territory in community work and research. *Applied Developmental Science, 4*, 11-20.

Checkoway, B. (2011). What is youth participation? *Children and Youth Services Review, 33*, 340-345.

Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry, 11*(4), 227-268.

Denton, P. (2005). *Learning through academic choice*. Turners Falls, MA: Northeast Foundation for Children.

Deschenes, S. N., Arbreton, A., Little, P. M., Herrera, C., Grossman, J. B., Weiss, H. B., & Lee, D. (2010). Engaging older youth: Program and city-level strategies to support sustained participation in out-of-school time. Cambridge, MA: Harvard Family Research Project and Public/Private Ventures, Commissioned by the Wallace Foundation.

Fletcher, A. (2008). Ladder of young people's participation Retrieved 02-26-2012, 2012, from http://www.freechild.org/ladder.htm

Hart, R. (1993). Children's participation: From tokenism to citizenship. Florence, Italy: UNICEF International Child Development Centre.

Honaker, J., King, G., & Blackwell, M. (2010). Documentation for Amelia II: A program for missing data, from http://gking.harvard.edu/amelia/

Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Pscyhology, 102*, 588-600.

LaFleur, J., Russell, C. A., Low, M., & Romash, R. (2011, Sept). The Beacon Community Centers Middle School Initiative: Final report on implementation and youth experience in the iniative. Washington, DC: Policy Studies Associates, Inc.

Mantooth, L. J. (2008). Youth in governance: A guide for adults involving youth as decision makers on boards and committees. Knoxville, TN: Tennessee 4-H Youth Development.

Mitra, D. (2006). Increasing student voice and moving toward youth leadership. *The Prevention Researcher, 13*(1), 7-10.

O'Donoghue, J. L., Kirshner, B., & McLaughlin, M. (2006). Youth participation: From myths to effective practice. *The Prevention Researcher, 13*(1), 3-6.

Smith, C., Akiva, T., Lo, Y.-J., Sugar, S., Frank, K. A., Peck, S. C., . . . Devaney, T. (2012). Continuous quality improvement in afterschool settings: Impact findings from the Youth Program Quality Intervention study. Washington, DC: The Forum for Youth Investment.

Zeldin, S. (2004). Youth as agents of adults and community development: Mapping the processes and outcomes of youth engaged in organizational governance. *Applied Developmental Science, 8*(2), 75-90.

Zeldin, S., McDaniel, A. K., Topitzes, D., & Calvert. (2000). Youth in decision making: A study on the impacts of youth on adults and organizations. Madison, WI: University of Wisconsin-

Madison Innovation Center for Community and Youth Development and National 4-H Council.

Zeldin, S., & Petrokubi, J. (2006). Understanding innovations: Youth-adult partnerships in decision making. *The Prevention Researcher*, *13*(1), 11-16.

Zeldin, S., Petrokubi, J., & MacNeil, C. (2008). Youth-adult partnerships in decision making: Disseminating and implementing an innovative idea into established organizations and communities. *American Journal of Community Psychology*, *41*, 262-277.

Table 1

Percentages of YPG Practices reported: Program Director and Youth Reports

Program Directors *Who determines decisions about… Are youth involved?*	Original			Binary	
	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. Lead activities	35 (few or no youth)	40 (youth assist)	25 (youth lead)	75	25
4. Staffing	79 (no input)	16 (youth consulted)	5 (shared responsibilities)	79	20
5. Program governance	57 (no role)	19 (input or token presence)	24 (shared responsibilities)	76	24

Youth *I've been asked to provide input on…*	Original			Binary (one or more times)	
	No	One time	More than once	Not Present	Present
1. Activities	23	29	47	23	77
2. Physical setup	62	18	20	62	38
4. Staffing	81	10	9	81	19
5. 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 2

Correlations for level-1 variables

	a	b	c	d	e	f	g	h
Dependent Variables								
a. Program Regard	1.00							
b. Empathy	.36	1.00						
c. Communication	.44	.53	1.00					
d. Problem-solving	.36	.52	.53	1.00				
Predictor								
e. YPG-Youth	.31	.05	.17	.08	1.00			
Covariates								
f. Age	.05	-.08	-.01	-.07	.16	1.00		
g. Parent Education	-.11	.02	.02	.02	-.13	-.25	1.00	
h. Grades	-.06	.12	.12	.11	-.10	-.28	.26	1.00
i. Participation Intensity	.10	.15	.09	.10	.00	-.00	.04	-.05

Table 3

Percent agreement of directors 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. Prog. governance	68	6	**74**	13	7	**20**

Table 4

YPG-Adult: Multi-level models

Fixed Effect	Program regard	Empathy	Communication	Prob-solving
Covariates				
Age	-.03	-.08**	-.02	-.09***
Age (mean, level-2)	.08	.08*	.04	.12***
Gender	-.15**	-.48***	-.21***	-.23***
Parent Education	-.03	-.01	.02	-.00
Grades	-.01	.07**	.08**	.06**
Participation Intensity	.07***	.09***	.05*	.08**
Predictor				
YPG-Adult	**.18****	**.13***	**.11***	**.04**
Total variance				
Level-2	25%	9%	9%	6%
Level-1	75%	91%	91%	94%
Percent explained				
Between sites (level-2)	10%	20%	10%	<0%
Between youth (level-1)	2%	11%	3%	6%

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

Note: Age, gender and YPG-Adult are uncentered for interpretation purposes; all other variables are grand mean centered.

Table 5

YPG-Youth: OLS Regressions

Fixed Effect	Program regard	Empathy	Communication	Prob Solving
Covariates				
Age	-.03	-.06*	.01	-.04
Gender	-.07*	-.22***	-.10***	-.10***
Parent Education	-.07*	-.02	.01	-.01
Grades	-.03	.08**	.12***	.08**
Participation Intensity	.10***	.14***	.08**	.13***
Predictors				
YPG-Youth	**.30*** **	**.06***	**.18*** **	**.14*** **
Model				
R-squared	.12	.09	.06	.05

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

Note: N=1121

Table 6

YPG-Adult: Multi-level models with Age Interactions

Fixed Effect	Program regard	Empathy	Communication	Prob-solving
Covariates				
Age	-.01	-.04	-.00	-.05*
Gender	-.15**	-.49***	-.23***	-.23***
Parent Education	-.03	-.02	.02	-.01
Grades	-.01	.07**	.08**	.06**
Participation Intensity	.08***	.09***	.05*	.09**
Predictors				
YPG-Adult	**.15***	**.10***	**.12**	**.02**
YPG-Adult by Age	**.04**	**.05***	**.02**	**.05***
Total variance				
Level-2	25%	9%	9%	6%
Level-1	75%	91%	91%	94%
Percent explained				
Between sites (level-2)	14%	49%	24%	0%
Between youth (level-1)	4%	13%	4%	7%
Chi-sq change from Model in Table 4 (change in df=4)	113***	46***	49***	16***

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

Note: Unlike models in Table 4, all variables with the exception of gender are grand mean centered.

Figure 1

YPG Practices and Empathy by Average Age