

**Effects of the 2011 East Palo Alto YMCA  
High School Youth Institute Summer  
Program on Leadership Skills, Technology  
Skills, Educational Attitudes and Positive  
Youth Development**

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## **Introduction**

The YMCA Youth Institute, an intensive, year-round program that uses technology as an integral mechanism for promoting positive youth development and enhancing the academic success and career readiness of low-income, culturally-diverse high school students. The goals of the Youth Institute are to : (a) improve the technology, career, leadership and decision-making skills of these youth to promote readiness for higher education or career entry after graduation; (b) improve academic achievement and stimulate interest in higher education among low-income, culturally-diverse, urban high school youth; and (c) promote bonding to pro-social adults and community attachment among urban youth to ensure that they remain engaged in their schools and communities. The program is divided into two components, the intensive summer technology program and the year-round academic support program.

### ***Intensive Technology Summer Program***

Incoming participants participate in a full-time (35 hours per week), eight-week summer program. The first week is spent at a wilderness retreat at Kings Canyon National Park and focuses on team building, cultural diversity training, decision-making and life sciences. Participants are assigned to project teams that are maintained throughout the summer so there is an ethnic and gender mix. Initiative games and a low-ropes course are used to promote group cohesion and leadership skills while improving problem-solving and communication skills. Activities designed to increase cultural awareness and tolerance are integrated into the week. Life sciences are introduced using the outdoor education model. This week is critical to program success because it helps participants to develop the group and problem-solving skills they will need to successfully work in groups to accomplish their summer tasks.

During the remaining weeks, the program uses project-based learning to teach information technology skills. Projects include: (a) digital story telling/movie-making,

(b) graphic design, (c) web site creation, (d) presentation and office software, (e) 3D animation, and (f) use of peripheral hardware (scanner, DV cameras, etc). A wide range of the latest software is used including Cinema 4D, Adobe Illustrator, Adobe Photoshop, I-Movie, Final Cut Pro, Power Point, Keynote, Pagemaker, Flash, Extensis InDesign, Garage Band and Macromedia Dreamweaver. Participants also learn how to connect, troubleshoot and use computer networks. All classes have a curriculum description that identifies the pedagogical approach and the skill sets to be learned while linking the content to school content standards. Products include animated logos, five to ten minute movies, a magazine focused on teen issues and a website. All projects are designed to help participants gain literacy, math and higher level thinking skills, are linked to school content standards and completed in teams. Participants are paid a \$400 stipend for the summer.

The East Palo Alto YI was the first effort to replicate the YI model outside of Long Beach in 2010. This is the second year of their summer YI program that was provided in East Palo Alto. Two of the East Palo Alto YI staff had previously worked for the YI in Long Beach, and were themselves, graduates of the Long Beach YI. The third staff member, who worked with the YI last year, came from the local East Palo Alto community and had worked for the YMCA and the school district. The East Palo Alto cohort attended the wilderness retreat along with the Long Beach “new” and “alumni” groups, then continued for six weeks in East Palo Alto at the YMCA. In addition to the incoming class, the program also served alumni who had graduated from the program last year. This report presents the outcomes of the intensive summer YI program on the new East Palo Alto YI cohort.

## **Methods**

### ***Data Collection***

Self-report survey data was collected from all entering 2011 East Palo Alto Summer YI (EPAYI) program participants on the first and last day of the program. Two surveys were

completed. The first was the Leadership Skills Inventory (Karnes & Chauvin, 2000), a standardized leadership instrument which measures nine areas of leadership skills. The instrument has been shown to have strong reliability and validity. The second instrument, The YMCA Youth Institute Survey, is a combined instrument measuring positive youth development (cultural competency, life skills, positive core values, sense of self, social competency-responsible choices, community involvement, and positive adult relationships), technology skills, and educational attitudes. The positive youth development measures were created by the researchers specifically to evaluate this project based on The Toolkit for Evaluating Positive Youth Development (The Colorado Trust, 2004). The technology skills measure was originally created by Dr. Jo Ann Regan to evaluate the Long Beach YI, however, the measure has been revised several times to reflect the current technology curriculum at the YI. The three educational attitude measures (self-perceptions, goal valuation, and motivation/self-regulation) came from The School Attitude Assessment Survey – Revised Edition (McCoach & Siegle, 2003). This instrument has been shown to have strong reliability and validity.

### ***Sample***

Thirteen (93%) of the 14 East Palo Alto YMCA High School Youth Institute (EPAYI) participants were included in these analyses. As shown in Table 1, these youth ranged from 14 to 17 years of age, with the majority being 14 (76%). Sixty-two percent were male. Latinos (85%) were the largest ethnic group, followed by African-Americans at 15%. Seventy-seven percent of participants were in 9th grade when they started the EPAYI summer program.

Table 1  
Description of Summer 2011 East Palo Alto High School Youth Institute Participants  
(N = 13)

	%	N
<b>Gender</b>		
Male	62%	8
Female	38%	5
<b>Ethnicity</b>		
Latino	85%	11
African-American	15%	2
<b>Age at Start of Program</b>		
14	76%	10
15	8%	1
16	8%	1
17	8%	1
<b>Grade</b>		
8 <sup>th</sup>	8%	1
9 <sup>th</sup>	77%	10
11 <sup>th</sup>	15%	2

### Analysis

#### *Measures*

##### *Leadership Skill Scales*

Nine types of leadership skills were measured including fundamentals of leadership ( $\alpha = .79$  to  $.86$ ), written communication ( $\alpha = .86$  to  $.95$ ), speech communication ( $\alpha = .89$  to  $.91$ ), character-building ( $\alpha = .88$  to  $.92$ ), decision-making ( $\alpha = .84$  to  $.89$ ), group dynamics ( $\alpha = .91$  to  $.93$ ), problem-solving ( $\alpha = .77$  to  $.86$ ), personal skills ( $\alpha = .91$ ), and planning skills ( $\alpha = .91$  to  $.93$ ). Participants rated themselves on a scale ranging from 0 “Almost Never” to 3 “Almost

Always.” Higher scores indicated better self-perceived skills. Changes in skills were investigated using paired t-tests.

### ***Educational Attitude Scales***

Three educational attitudes were measured including academic self-perceptions ( $\alpha = .88$  to  $.86$ ), goal valuation ( $\alpha = .89$  to  $.98$ ), and motivation/self-regulation ( $\alpha = .90$  to  $.98$ ). The academic self-perceptions scale consisted of 6 items that measured the perception/confidence that students had in their own skills. Questions included, “I feel that I can learn new ideas quickly” and “I feel intelligent.” The goal valuation scale consisted of 6 items that measured how much students valued a task. Questions included, “It is important to me to get good grades” and “I want to do my best in school.” The motivation/self-regulation scale consisted of 10 items and measured how self-motivated students were and how good they were at self-monitoring. Questions included, “I use a variety of strategies to learn new material in high school” and “I am a responsible student.” Participants rated their agreement with each statement on a scale ranging from 1 “Strongly Disagree” to 7 “Strongly Agree.” Higher scores indicated more positive attitudes. Changes in attitudes were investigated using paired t-tests.

### ***Positive Youth Development Scales***

The cultural competence scale ( $\alpha = .81$  to  $.88$ ) consisted of seven items measuring respect for and comfort with their own and others’ cultures. Questions included, “I have respect for teens of other cultures, races or ethnic groups” and “I feel connected to and proud of my own culture.” The life skills scale ( $\alpha = .73$  to  $.88$ ) consisted of 11 items measuring proficiencies that allow youth to transition into and achieve successful adulthood. Questions included, “I am good at making friends” and “I make good decisions.”

The positive core value scale ( $\alpha = .71$  to  $.74$ ) consisted of seven items measuring caring, empathy, integrity, honesty, responsibility, equality and fairness. Questions included, “I am good

at taking responsibility for my actions,” and “I am good at speaking up for people who have been treated unfairly. The sense of self scale ( $\alpha = .82$  to  $.86$ ) consisted of six items measuring how youth view themselves and their abilities to cope with the basic challenges of life. Questions included, “I can handle whatever comes my way” and “I feel that I can make a difference.”

The social competency/responsible choices scale ( $\alpha = .59$  to  $.82$ ) consisted of five items measuring good behavior, hard work, personal responsibility and fairness. Questions included, “I can identify the positive and negative consequences of my behavior” and “I think I should work to get something if I really want it.” The community involvement scale ( $\alpha = .51$  to  $.84$ ) consisted of four items measuring feelings of connectedness to the community and volunteer activities. Questions included, “I feel a strong connection to my community” and “I feel good about myself because I help others.”

The positive adult relationships scale ( $\alpha = .85$  to  $.89$ ) consisted of three items measuring the amount of perceived social support received from adults outside of the family. Questions included, “There is a caring adult outside my family in my life who is around when I need him/her” and “There is a caring adult outside of my family who I can talk to about my problems.”

## Results

### *Leadership Skills*

As shown in Table 2, these EPAWI youth self-reported significant improvement in six of the nine leadership skill areas including, fundamentals of leadership,  $t(11) = 2.24, p < .05$ , speech communication,  $t(12) = 2.24, p < .05$ , decision-making,  $t(12) = 2.24, p < .05$ , group dynamics,  $t(12) = 2.24, p < .05$ , problem-solving,  $t(11) = 2.24, p < .05$ , and planning,  $t(12) = 2.24, p < .05$ , at the end of the summer program. Youth also reported some improvement in written communication,  $t(11) = 2.24, p < .10$ , and character-building skills,  $t(11) = 2.24, p <$

.10. The greatest gains were found in speech communication, problem-solving, fundamentals of leadership, and group dynamics.

Table 2  
Summer 2011 East Palo Alto YI Participant Report of Changes in Leadership Skills

Skills	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.09	.70	12	2.58	.40	.49**
Written Communication	1.93	.55	13	2.20	.66	.27*
Speech Communication	1.76	.54	13	2.35	.50	.59**
Character Building	2.31	.39	13	2.58	.46	.26*
Decision-Making	2.28	.36	13	2.56	.52	.28**
Group Dynamics	2.07	.50	13	2.54	.42	.47**
Problem-Solving	2.17	.30	12	2.67	.37	.50**
Personal	2.27	.45	12	2.46	.42	.19
Planning	2.05	.35	12	2.45	.49	.40**

\* $p < .10$

\*\* $p < .05$

### **Technology Skills**

Technology skills were measured by self-report of skill level with 13 types of technology. Participants rated themselves on a scale ranging from 1 “No Skills” to 4 “Excellent Skills.” Higher scores indicated greater skill level. As shown in Table 3, study participants reported significantly higher skills in web design,  $t(12) = 5.73, p < .05$ , word processing software,  $t(12) = 5.10, p < .05$ , data processing software,  $t(12) = 3.33, p < .05$ , digital video filming,  $t(12) = 7.67, p < .05$ , digital music creation,  $t(12) = 3.96, p < .05$ , presentation software,  $t(12) = 3.64, p < .05$ , digital video editing software,  $t(12) = 7.27, p < .05$ , graphic design,  $t(12) = 7.90, p < .05$ , digital photography,  $t(12) = 4.79, p < .05$ , and animation,  $t(12) = 9.68, p < .05$ , at the end of the summer program. Youth also reported somewhat higher skill levels in email use,  $t(11) = 1.91, p < .10$ , and using the computer to complete school assignments,  $t(12) = 2.12, p < .10$ .

The greatest skill gains were found in graphic design, digital video editing, animation and web design.

Table 3

## Summer 2011 YI Participant Report of Changes in Technology Skills

Technology Use	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Email use.	2.83	.83	12	3.08	.79	.25*
Internet use (visit websites/surf web).	3.31	.63	13	3.54	.52	.23
Web design (construction, layout, domain registration, maintenance, applications, Dreamweaver, Photoshop, HTML, peripheral configuration).	1.54	.78	13	3.08	.64	1.54**
Word processing software (Word) to write reports and/or letters.	2.54	.97	13	3.54	.66	1.00**
Data processing software (Excel) for databases or spreadsheets.	1.77	1.09	13	2.54	.78	.77**
Digital Video Filming (Camera, lighting, etc.)	2.15	.80	13	3.54	.66	1.38**
Using the computer to complete school assignments.	2.92	.86	13	3.54	.88	.61*
Digital music creation (GarageBand, Reason, Logic Pro).	1.85	.99	13	3.31	.95	1.46**
Presentation software (Powerpoint, Keynote, Inspiration).	2.31	1.18	13	3.46	.78	1.15**
Digital Video Editing (Final Cut Pro, iMovie, After Effects, etc.).	1.38	.51	13	3.31	.95	1.92**
Graphic Design (Photoshop, Illustrator, InDesign).	1.38	.51	13	3.38	.77	2.00**
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.).	1.77	.72	13	3.00	1.00	1.23**
Animation (Cinema 4D, After Effects, Stop Motion).	1.31	.48	13	3.00	.82	1.69**

\*p &lt; .10, \*\*p &lt; .05

### *Educational Attitudes*

As shown in Table 4, these EPAYI youth did not report any significant changes in their educational attitudes at the end of the summer program.

Table 4  
Summer 2011 East Palo Alto YI Participant Report of Changes in Educational Attitudes

Educational Attitude Scale	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Academic Self-Perceptions	4.62	1.19	13	4.92	1.61	.30
Goal Valuation	5.73	1.30	13	5.90	1.54	.17
Motivation/Self-Regulation	4.25	.99	13	4.88	1.54	.62

\* $p < .10$

\*\* $p < .05$

### *Positive Youth Development*

As shown in Table 5, teens who participated in the 2011 EPAYI summer program reported a significant improvement in positive core values,  $t(12) = 2.25, p < .05$ , and some improvement in life skills,  $t(12) = 2.13, p < .10$ , and sense of self,  $t(12) = 1.90, p < .10$ , at the end of the summer program.

Table 5

Summer 2011 East Palo Alto YI Participant Report of Changes in Positive Youth Development  
Scales

Development Scale	Before Summer			End of Summer		Difference
	Mean	SD	N	Mean	SD	
Cultural Competence	3.32	.57	13	3.37	.57	.05
Life Skills	2.91	.51	13	3.14	.52	.23*
Positive Core Values	2.98	.45	13	3.20	.45	.22**
Sense of Self	2.95	.54	13	3.17	.56	.22*
Social Competency/Personal Responsibility	3.20	.42	13	3.38	.48	.18
Community Involvement	2.44	.61	9	2.72	.48	.28
Caring Adult Relationships	3.33	.71	12	3.25	1.03	-.08

\*p &lt; .10

\*\*p &lt; .05

### Conclusions

This study investigated the effects of the second year of the EPAYI summer program on leadership skills, technology skills, academic self-perceptions and positive youth development. Overall, the results of this evaluation were positive with improvements found in the areas of leadership development, technology skills, and in some areas of positive youth development. The many areas of positive change represent substantial improvement over the quantitative outcomes found at the end of the first year of the program and are noteworthy given the small size of the sample.

In terms of leadership development, these youth self-reported significant improvement in fundamentals of leadership, speech communication, decision-making, group dynamics, problem-solving, and planning as well as some improvement in written communication and character

building. These positive changes suggest that the summer wilderness retreat and the project-based learning experiences helped participants to develop a wide range of skills that should enable them to be leaders in a variety of settings. The skills these youth developed should prove useful both in school and as they enter the work force as many of the items measured by this instrument have been identified as critical 21<sup>st</sup> century work place skills (The Partnership for 21<sup>st</sup> Century Learning Skills, 2003). The perceived improvement in written and speech communication should also prove helpful as they continue their school careers. Clearly, the program was effective in meeting its' leadership development goal with this cohort.

Participants in this EPAYI summer program also evidenced significant improvement in the majority of technology skills (77%) as well as some improvement in two of the three remaining areas. Thus, it appears that participation in the HSYI, as hypothesized, exposed these youth to a wide variety of technology applications and helped them to gain a broad array of high-end technology skills that should prove valuable to them in their future academic careers and personal endeavors.

Although the average scores on each of the educational attitude measures increased after program involvement, there were no significant changes in this area. There was a wide discrepancy in how individual youth responded to these questions, with some showing stronger educational commitment, while others evidenced very little commitment even after being involved in the program. The scores on these measures, particularly in the areas of academic self-perceptions and motivation/self-regulation, were lower than those found in most evaluations of the YI. Thus, if year-round programming is provided, it may prove beneficial to focus on helping these youth to understand the importance of education. Staff will also want to explore ways to support educational success such as incorporating college field trips or providing workshops to strengthen academic commitment and skills such as study skills, college

preparation, or career development into the year-round program or summer program next year as well. These youth might also need individual academic counseling. These efforts may help to ensure that the program goals related to education are more likely to be met.

The YI is designed to incorporate positive youth development strategies into all aspects of the program since participation in youth development programs have been shown to enhance academic success (Hall, Yohalem, Tolan & Wilson, 2003) while reducing involvement in adolescent problem behaviors (Roffman, Pagano & Hirsch, 2001; Meltzer, Fitzgibbon, Leahy & Petsko, 2006). Unlike last year, when there were no changes in this program area, these youth related significant improvement in positive core values and some improvement in life skills and sense of self. However, efforts should continue to ensure that positive youth development is a clear program focus. There was also a large disparity within this cohort on positive adult relationships with some actually reporting less positive relationships after program participation. This may indicate that staff may have been more effective in establishing relationships with some youth than others. Staff may want to explore ways to create these positive relationships with different types of youth given that positive adult relationships have been linked to overall program goals such as school commitment and academic achievement, as well as less involvement in delinquency and other problem behaviors (Gabarino, 1999; Paxton, Valois, Huebner & Drane, 2006). It should also prove beneficial to look for ways for these youth to contribute to the YMCA and their communities as a mechanism for further encouraging positive youth development.

Overall, the results presented here suggest the program was more effective than last year in meeting its major goals, except in the area of educational aspirations. These youth appear to have developed leadership and technology skills and gained in some areas of positive youth development. It will be interesting to see if these findings are supported by the qualitative focus

group data that was also gathered. Year-round supports related to education support and positive youth development may prove useful as the youth transition into YI alumni.

## References

- Garbarino, J. (1999). What children can tell us about living with violence. *In M. Sugar (Eds.), Trauma and adolescence*. Madison, CT: International Universities Press.
- Hall, G., Yohalem, N., Tolman, J., & Wilson, A. (2003). How afterschool programs can most effectively promote positive youth development as a support to academic achievement: A report commissioned by the Boston after-school for all partnership. Washington, DC: National Institute on Out-of-School Time.
- Karnes, F. A. & Chauvin, J. C. (2000). *Leadership development program manual*. Scottsdale AZ: Gifted Psychology Press, Inc.
- McCoach, D. B., & Siegle, D. (2003). The school attitude assessment survey-revised: A new instrument to identify academically able students who underachieve. *Educational and Psychological Measurement, 63* (3), 414-429.
- Meltzer, I. J., Fitzgibbon, J. J., Leahy, P. J., & Petsko, K. E. (2006). A youth development program: Lasting impact. *Clinical Pediatrics, 45*, 655-660.
- Paxton, R. J., Valois, R. F., Huebner, E. S., & Drane, J. W. (2006). Opportunity for adult bonding/meaningful neighborhood roles and life-satisfaction among USA middle school students. *Social Indicators Research, 79*, 291-312.
- Roffman, J. G., Pagano, M. E., & Hirsch, B. J. (2001). Youth functioning and experiences in inner-city after-school programs among age, gender, and race groups. *Journal of Child and Family Studies, 10*, 85-100.
- The Colorado Trust. *The after-school initiative's toolkit for evaluating positive youth development*. Denver, CO: The Colorado Trust, 2004.

The Partnership for 21<sup>st</sup> Century Learning Skills. *Learning for the 21<sup>st</sup> century: A report and mile guide for 21<sup>st</sup> century skills*. Washington DC: Partnerships for 21<sup>st</sup> Century Skills, 2003. Retrieved from: [http://www.21stcenturyskills.org/downloads/P21\\_Report.pdf](http://www.21stcenturyskills.org/downloads/P21_Report.pdf).