

**End of Year One Evaluation of Leadership,
Educational Attitudes, Positive Youth
Development and Technology Outcomes for
East Palo Alto YMCA High School Youth
Institute 2010 Alumni**

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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.

During the school-year EPA offered a voluntary after-school program on Monday – Friday from 3:45 – 8:00. Participants had access to technology equipment (computers, cameras) and some made videos. The program provided homework assistance, physical activities, and technology projects. A six-week section on poetry was offered. One of the staff from the summer program facilitated the year-round program and summer alumni taught others the technology skills they had learned. It is estimated that about 50 youth, including most of the YI summer cohort participated in the program. It is estimated, by program staff, those alumni who attended came about twice a week. This report presents the outcomes of the EPAYI program on the 2010 summer cohort at the end of their first year of program participation.

Methods

Data Collection

Program staff collected self-report data from all entering 2010 EPAYI participants prior to the start of the 2010 summer program, and, from as many as possible, approximately one year

later. Two surveys were completed. The first was the Leadership Skills Inventory (Karnes & Chauvin, 2000), a standardized leadership measure. The inventory measures nine areas of leadership skill. The instrument has been shown to have strong reliability and validity. 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. Typically, the end-of-year YI evaluation also investigates changes in technology skills, however, the instrument that measured these skills was changed substantially and the research team inadvertently sent the wrong measure to EPA staff so analyses on this aspect of the program could not be completed. However, alumni technology skill changes from the beginning to end of the 2011 summer program are included.

Sample

Sixteen youth completed the summer East Palo Alto High School Youth Institute (EPAYI) in 2010. Of these, 9 (56%) completed beginning of summer and end of year one surveys and are included in these analyses. As shown in Table 1, the participants who were included in this study ranged, upon program entry, from 13 to 16 years of age, with the average age of 14. Fifty-six percent were male. Latinos (89%) were the largest ethnic group, followed by African-Americans (11%). Two-thirds (67%) were in 9th grade when they started the program. Due to the small sample size, a valid attrition analysis could not be completed to determine if the subsample evaluated here was representative of the larger group.

Table 1
Description of 2010 East Palo Alto Youth Institute Alumni Subsample
(N = 9)

	%	N
❖ Age at Start of Program		
13	22%	2
14	45%	4
15	11%	1
16	22%	2
❖ Gender		
Male	56%	5
Female	44%	4
❖ Ethnicity		
Latino	89%	8
African-American	11%	1
❖ Grade		
8 th	22%	2
9 th	67%	6
10 th	11%	1

Analyses

Measures

Leadership Skill Scales

Nine types of leadership skills were measured including fundamentals of leadership ($\alpha = .89$ to $.92$), written communication ($\alpha = .87$ to $.94$), speech communication ($\alpha = .92$ to $.93$), character-building ($\alpha = .92$), decision-making ($\alpha = .86$ to $.92$), group dynamics ($\alpha = .95$ to $.96$), problem-solving ($\alpha = .84$ to $.93$), personal skills ($\alpha = .95$ to $.97$), and planning skills ($\alpha = .93$ to $.96$). 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 ($\alpha = .70$ to $.75$), goal valuation ($\alpha = .93$ to $.97$), and motivation/self-regulation ($\alpha = .73$ to $.82$). The academic self-perception scale consisted of six 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 smart in school.” The goal valuation scale consisted of six items that measured how much students valued educational tasks. 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 ten 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 ($\alpha = .71$ to $.95$) consisted of 6 items measuring respect for and comfort with their own and others’ cultures. Questions included “I am comfortable being around teens from other cultures/ethnic backgrounds other than my own” and “I try hard not to judge people based on skin color.”

The life skills scale ($\alpha = .75$ to $.85$) 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 ($\alpha = .61$ to $.77$) 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 ($\alpha = .67$ to $.81$) consisted of 5 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 ($\alpha = .60$ to $.76$) consisted of six 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 ($\alpha = .61$ to $.81$) consisted of three items measuring feelings of connectedness to the community and volunteer activities. Questions included “I spend time looking for opportunities to help others in my community” and “I feel good about myself because I help others.” Two questions asked these youth about their positive adult relationships. These two questions were analyzed separately. 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 in my life with who I can share my happy and sad times.”

Technology Skills

All of the technology skill questions were analyzed separately using paired t-tests.

Results

Changes in Leadership Skills

As shown in Table 2, 2010 alumni reported significant skill level improvements in three of the nine leadership skills including group dynamics, $t(8) = 3.00, p < .05$, problem-solving,

$t(8) = 2.67, p < .05$, and planning skills, $t(8) = 3.24, p < .05$, at the end of their first year in the EPAYI program. These alumni also reported some improvement in written communication, $t(8) = 1.91, p < .10$, and personal skills, $t(8) = 1.87, p < .10$.

Table 2
Participant Report of Changes in Leadership Skills
2010 East Palo Alto Youth Institute Alumni

Scale	Beginning of Program			End of Year One		
	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.00	.67	9	2.30	.45	.30
Written Communication	1.72	.80	9	2.02	.53	.30*
Speech Communication	1.83	.63	9	1.89	.63	.06
Character Building	2.31	.44	9	2.53	.41	.22
Group Dynamics	2.15	.51	9	2.44	.47	.29**
Decision-Making	2.20	.42	9	2.37	.45	.17
Problem-Solving	2.15	.71	9	2.50	.39	.35**
Personal	2.16	.62	9	2.48	.45	.31*
Planning	2.14	.62	9	2.46	.38	.33**

** $p < .05$

* $p < .10$

Changes in Educational Attitudes

As shown in Table 3, study participants did not report significant improvement on any of the educational attitude scales at the end of year one although all measures increased.

Table 3
Participant Report of Changes in Educational Attitudes
2010 East Palo Alto Youth Institute Alumni

Scale	Beginning of Program			End of Year One		Difference
	Mean	SD	N	Mean	SD	
Academic Self-Perceptions	5.09	.80	9	5.50	.71	.41
Goal Valuation	6.06	1.03	9	6.44	.70	.39
Motivation/Self-Regulation	5.10	.65	9	5.26	.61	.16

**p<.05

*p<.10

Positive Youth Development

As shown in Table 4, no significant improvements were found for any of the positive youth development measures at the end of year one.

Table 4
Participant Report of Changes in Positive Youth Development
2010 East Palo Alto Youth Institute Alumni

Development Scale	Beginning of Program			End of Year One		Difference
	Mean	SD	N	Mean	SD	
Cultural Competence	3.56	.39	9	3.57	.53	.02
Life Skills	3.23	.35	9	3.15	.39	-.08
Positive Core Values	3.41	.35	9	3.27	.39	-.14
Sense of Self	3.25	.45	9	3.31	.44	.06
Social Competency/Personal Responsibility	3.30	.34	9	3.26	.38	-.04
Community Involvement	3.26	.57	9	3.07	.40	-.19
There is a caring adult outside my family who is around when I need him/her.	3.33	.50	9	3.22	.44	-.11
There is a caring adult outside my family with who I can share my happy times and sad times.	3.33	.50	9	3.44	.53	.11

** $p < .05$

* $p < .10$

Changes in Technology Skills (Summer Program)

Technology skills were measured by self-report of skill level on 13 types of technology at the start of the 2011 summer program and again at the end. 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 5, study participants reported significantly higher skills in presentation software, $t(6) = 2.83$, $p < .05$. Youth also reported somewhat higher skill levels in word processing software, $t(6) = 2.12$, $p < .10$, and digital video editing, $t(6) = 1.92$, $p < .10$.

Table 5

2010 YI Alumni Report of Changes in Technology Skills during the Summer 2011 Program

Technology Use	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Email use.	3.29	.76	7	3.43	.54	.14
Internet use (visit websites/surf web).	3.57	.54	7	3.57	.54	.00
Web design (construction, layout, domain registration, maintenance, applications, Dreamweaver, Photoshop, HTML, peripheral configuration).	2.86	.69	7	2.86	.38	.00
Word processing software (Word) to write reports and/or letters.	3.14	.69	7	3.57	.54	.43*
Data processing software (Excel) for databases or spreadsheets.	2.29	.76	7	2.57	.98	.29
Digital Video Filming (Camera, lighting, etc.)	3.29	.95	7	3.29	.76	.00
Using the computer to complete school assignments.	3.43	.79	7	3.57	.54	.14
Digital music creation (GarageBand, Reason, Logic Pro).	3.0	1.0	7	3.0	1.0	.00
Presentation software (Powerpoint, Keynote, Inspiration).	3.0	.82	7	3.57	.54	.57**
Digital Video Editing (Final Cut Pro, iMovie, After Effects, etc.).	2.43	.98	7	3.0	1.16	.57*
Graphic Design (Photoshop, Illustrator, InDesign).	2.86	.69	7	3.0	.82	.14
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.).	2.86	.69	7	3.29	.49	.43
Animation (Cinema 4D, After Effects, Stop Motion).	2.71	.76	7	2.71	1.11	.00

**p < .05

*p < .10

Conclusions

The results of this evaluation were somewhat mixed. Given the small sample size for these analyses and the fact that the extent to which these youth actually participated in the year-

round program is unknown, the findings reported here should be viewed with some caution. Although, at the end of the 2010 summer, EPAYI participants only reported significant leadership improvement in speech communication, at the end of the year, significant improvements were found in group dynamics, problem-solving and planning, while some improvement was found in written communication and personal aspects of leadership. This suggests the year-round program helped these youth to further develop the leadership skills they began to acquire during the summer program. It is possible these gains were made as a result of their teaching activities and other responsibilities as part of the EPA afterschool program. These results are positive and may indicate the need for a year-round program.

No changes were found at the end of year one on educational attitudes even though there was some improvement on academic self-perceptions at the end of summer. Similar to the end of summer findings, these alumni did not report significant changes in any of the areas of positive youth development. These outcomes may suggest the need to introduce more academic supports or experiences to expose youth to higher education into the year-round program to increase the likelihood of meeting this program goal. The lack of change in positive youth development is somewhat perplexing given the program model and the focus group data from last year. However, additional efforts to target these important areas may prove beneficial. This may include training on cultural diversity or engaging youth in community service projects. Helping these youth to build positive relationships with positive adults should also be a priority for program staff.

As was to be expected based on their prior training, alumni came in with strong technology skills in many areas. However, at the end of the summer, they did report improvement in their skills related to presentation software, word processing and video editing. This may indicate that they learned new and different technology skills during the summer

program. It may be useful to review the technology activities related to some of the areas that evidenced little change over the summer if these are areas in which growth is expected over time. In terms of future program research, the technology skills of alumni need to be evaluated prior to the start of the summer program next year. It might also be useful, if funding is available, to do a qualitative study with alumni to better understand their experiences with and benefits of the year-round program.

References

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