

**End of Year One Evaluation of Leadership,  
Technology, Educational Attitudes and  
Positive Youth Development Outcomes for  
Long Beach YMCA High School Youth  
Institute 2012 Alumni**

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**September, 2013**

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## **Introduction**

The YMCA of Greater Long Beach High School Youth Institute (HSYI) is a 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. Classes enter each summer with an intensive eight-week program. Upon graduation from the summer program, participants become “Youth Institute Alumni,” who are then able to voluntarily participate in a wide range of year-round activities throughout their high school and college years. Involvement opportunities vary by year but include digital art labs, academic advising/homework assistance, personal/home advising, college readiness, surfing/hiking club, community service, equipment check-out, field trips, paid internships, community leadership positions and social work support.

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. This report investigates year-round program participation and the effects of the program on achieving these goals after one-year of program participation.

## **Methods**

### ***Data Collection***

Program staff collected self-report data from all entering 2012 YMCA Youth Institute participants prior to the start of the summer program, and, from as many as possible, approximately one year later. Two surveys were completed. The first was the Leadership Skills

Inventory, a standardized inventory measuring nine areas of leadership. The instrument has strong reliability and validity (Karnes & Chauvin, 2000). The second instrument, The Youth Institute Survey, measures positive youth development, technology skills, and educational attitudes. The positive youth development measures were created by the researchers based on The Toolkit for Evaluating Positive Youth Development (The Colorado Trust, 2004). The technology skill items reflected the most recent YI technology curriculum. The three educational attitude measures came from The School Attitude Assessment Survey – Revised Edition. This instrument has strong reliability and validity (McCoach & Siegle, 2003).

### *Sample*

Forty-four youth completed the summer HSYI in 2012. Of these, 21 (48%) had the necessary consents and surveys to be included in these analyses. As shown in Table 1, the participants in this study ranged from 13 to 15 years of age, with the average age of 14 at the start of the program. Fifty-seven percent were male. Latinos (66%) were the largest ethnic group, followed by African-Americans (19%). Ninety percent were in 8th or 9th grade at program entry. An attrition analysis was used to determine demographic differences between the youth in the “analysis group” and those who did not have the necessary data. No significant differences were found for gender, age, or grade level. Although a valid chi-square analysis could not be run for ethnicity, it appears that Latino and African-American youth were more likely to be retained than Asian-American/Pacific Islanders. Thus, the results found here may be more representative of Latino and African-American participants.

Table 1  
Description of 2012 Youth Institute Alumni Subsample  
(N = 21)

	%	N
<b>Age at Start of Program</b>		
13	48%	10
14	33%	7
15	19%	4
<b>Gender</b>		
Female	43%	9
Male	57%	12
<b>Ethnicity</b>		
Latino	66%	14
African-American	19%	4
Filipino/Pacific Islander	10%	2
Multicultural	5%	1
<b>Grade</b>		
8 <sup>th</sup>	62%	13
9 <sup>th</sup>	28%	6
10 <sup>th</sup>	5%	1
11 <sup>th</sup>	5%	1

## Analyses

### *Measures*

#### *Leadership Skill Scales*

Nine types of leadership skills were measured including fundamentals of leadership ( $\alpha = .90$  to  $.91$ ), written communication ( $\alpha = .77$  to  $.86$ ), speech communication ( $\alpha = .85$  to  $.90$ ), character-building ( $\alpha = .81$  to  $.83$ ), decision-making ( $\alpha = .8$  to  $.87$ ), group dynamics ( $\alpha = .87$  to  $.92$ ), problem-solving ( $\alpha = .78$  to  $.84$ ), personal skills ( $\alpha = .90$  to  $.92$ ), and planning skills ( $\alpha = .89$

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 were investigated using paired t-tests.

### ***Technology Skills***

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

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

The academic self-perception scale ( $\alpha = .92$  to  $.93$ ) consisted of six items related to the perception/confidence that participants 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 ( $\alpha = .86$  to  $.93$ ) consisted of six items that measured how much participants 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 ( $\alpha = .83$  to  $.97$ ) consisted of ten items and measured levels of self-motivation and 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 were investigated using paired t-tests.

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

The cultural competence scale ( $\alpha = .60$  to  $.71$ ) consisted of six items on 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 pride for my own culture, race or ethnic group.” The life skills scale ( $\alpha = .81$  to  $.84$ ) 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 values scale ( $\alpha = .64$  to  $.67$ ) consisted of six 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 social competency/responsible choices scale ( $\alpha = .73$  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 ( $\alpha = .63$  to  $.82$ ) consisted of three 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 ( $\alpha = .83$  to  $.85$ ) used four items to measure 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 in my life who cares about my feelings.”

## **Results**

### ***Extent and Type of Program Involvement***

As shown in Table 2, there were different types, as well as levels, of involvement among the YI Class of 2012 during the year immediately following their graduation. Total involvement ranged from 1 to 216 with a mean of 60. The largest number of participants used the digital arts lab or received personal or academic advising while the most frequent activity was using the digital arts lab.

Table 2  
Extent and Type of Involvement in Program Activities  
2012 Youth Institute Alumni  
August, 2012 – June, 2013

<b>Class of 2012</b>				
<b>Activity</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Range</b>
Digital Arts Lab	42	38	40	1 - 148
Personal/Home Advising	35	14	12	1 - 48
Academic Advising	22	4	4	1 – 16
Community Service: Technology Tutoring (October – December, 2012 Only)**	11	9	1	8 - 9
Community Service: University Art Museum Project (16 weeks)	11	16	0	16
Surf Club	7	2	1	1 - 3
Fall Meeting	13	1	N/A	N/A
Dream Works – L.A. Harbor College	7	1	N/A	N/A
YMCA USA Cultural Exchange Trip	1	1	N/A	N/A
Thanksgiving Dinner	20	1	N/A	N/A
Holiday Party	18	1	N/A	N/A
Winter Meeting	15	1	N/A	N/A
San Francisco Trip	17	1	N/A	N/A

\*\*Technology tutoring attendance was lost for January – May, 2013.

### *Changes in Leadership Skills*

As shown in Table 3, study participants reported significant improvement in fundamentals of leadership,  $t(19) = 2.37, p < .05$ , written communication,  $t(20) = 4.10, p < .05$ , speech communication,  $t(20) = 4.32, p < .05$ , decision-making  $t(19) = 3.42, p < .05$ , and



problem-solving skills,  $t(18) = 3.74, p < .05$ ; and some improvement in group dynamics,  $t(18) = 1.87, p < .10$ , and personal skills,  $t(19) = 1.88, p < .10$ , at the end of the first year.

Table 3

## 2012 YI Alumni Report of Changes in Leadership Skills

Scale	Beginning of Program			End of Year One		
	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.21	.67	20	2.53	.46	.32**
Written Communication	1.98	.52	21	2.43	.44	.45**
Speech Communication	2.00	.57	21	2.35	.41	.35**
Character Building	2.53	.32	21	2.68	.27	.14**
Group Dynamics	2.37	.41	19	2.51	.29	.14*
Decision-Making	2.28	.48	20	2.65	.33	.37**
Problem-Solving	2.25	.53	19	2.57	.36	.32**
Personal	2.42	.42	20	2.59	.33	.18*
Planning	2.34	.49	20	2.49	.35	.16

\*\* $p < .05$  \* $p < .10$

***Changes in Technology Skills***

As shown in Table 4, 2012 alumni reported significant skill gains in web design,  $t(20) = 2.23, p < .05$ , using word processing programs,  $t(19) = 2.27, p < .05$ , using data processing software,  $t(20) = 2.91, p < .05$ , digital video filming,  $t(20) = 3.91, p < .05$ , using the computer to complete school assignments,  $t(20) = 2.32, p < .05$ , digital music creation,  $t(20) = 2.47, p < .05$ , presentation software,  $t(19) = 3.20, p < .05$ , digital video editing,  $t(20) = 4.14, p < .05$ , graphic design,  $t(20) = 3.65, p < .05$ , and digital photography,  $t(20) = 3.91, p < .05$ ; and somewhat more skills in animation,  $t(20) = 2.06, p < .10$ , at the end of their first year.

Table 4  
2012 Alumni YI Participant Report of Changes in Technology Skills

Technology	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Email use.	3.19	.87	21	3.43	.75	.24
Internet use (visit websites/surf web).	3.67	.58	21	3.86	.36	.19
Web design (construction, layout, domain registration, maintenance, applications, Dreamweaver, Photoshop, HTML, peripheral configuration).	2.19	.98	21	2.71	.84	.52**
Word processing software (Word) to write reports and/or letters.	3.15	.81	20	3.60	.60	.45**
Data processing software (Excel) for databases or spreadsheets.	2.14	1.01	21	2.76	.99	.62**
Digital Video Filming (Camera, lighting, etc.)	1.90	.83	21	2.86	.79	.95**
Using the computer to complete school assignments.	3.52	.75	21	3.86	.36	.33**
Digital music creation (GarageBand, Reason, Logic Pro).	2.19	1.12	21	2.86	.79	.67**
Presentation software (Powerpoint, Keynote, Inspiration).	2.50	1.19	20	3.20	.77	.70**
Digital Video Editing (Final Cut Pro, iMovie, After Effects, etc.).	1.76	1.04	21	2.81	.75	1.05**
Graphic Design (Photoshop, Illustrator, InDesign).	2.00	1.05	21	2.90	.62	.90**
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.).	1.76	.89	21	2.71	.78	.95**
Animation (Cinema 4D, After Effects, Stop Motion).	1.48	.87	21	2.00	.95	.52*

\*\*p<.05 \*p<.10

### *Changes in Educational Attitudes*

As shown in Table 6, there was no differences in participants' educational attitudes at the end of year one.

Table 6  
2012 YI Alumni Report of Changes in Educational Attitudes

Scale	Beginning of Program			End of Year One		Difference
	Mean	SD	N	Mean	SD	
Academic Self-Perceptions	5.69	1.00	21	5.83	1.12	.14
Goal Valuation	6.63	.58	21	6.60	.62	-.03
Motivation/Self-Regulation	5.76	.70	21	5.72	1.22	-.04

\*\*p<.05 \*p<.10

### *Changes in Positive Youth Development*

As shown below in Table 7, 2012 alumni self-reported significantly higher positive core values,  $t(20) = 2.40, p < .05$ , community involvement,  $t(19) = 3.21, p < .05$ , and caring adult relationships,  $t(19) = 3.21, p < .05$ ; and somewhat higher life skills,  $t(20) = 1.87, p < .10$ , at the end of year one.

Table 7  
2012 YI Alumni Participant Report of Changes in Positive Youth Development

Development Scale	Beginning of Program			End of Year One		
	Mean	SD	N	Mean	SD	Difference
Cultural Competence	3.77	.27	21	3.84	.21	.07
Life Skills	3.35	.38	21	3.49	.31	.14*
Positive Core Values	3.46	.31	21	3.64	.29	.18**
Social Competency/Personal Responsibility	3.48	.35	21	3.60	.34	.13
Community Involvement	2.92	.58	20	3.22	.58	.30**
Caring Adult Relationships	3.13	.87	20	3.63	.48	.50**

\*\*p<.05  
\*p<.10

## Conclusions

This study investigated changes in leadership, technology, educational attitudes and positive youth development after one year of program participation among YI alumni. Given only about half of the 2012 YI class participated in this evaluation, to some extent, the results should be viewed with caution. At the end of one year, alumni reported significant (fundamentals of leadership, written communication, speech communication, character building, decision-making, problem-solving) or some (group dynamics, personal) improvement on 89% of the leadership skills. These findings suggest that the leadership gains found after participation in the summer program were maintained over the course of a year, even when youth were in school and had other activities. This is particularly positive since many of the leadership skills measured here are similar to the skills that have been identified as necessary to compete in the 21<sup>st</sup> century (The Partnership for 21<sup>st</sup> Century Learning Skills, 2003).

It appears 2012 alumni were also able to maintain the significant technology skill gains they made during the intensive summer program since they reported significantly higher skills in web design, word processing software, data processing software, digital video filming, using computers to complete school assignments, digital music creation, presentation software, digital video editing, graphic design, and digital photography. These skills are important given that low-income youth have been found to have less technology access and skill, both of which are critical for productive adult employment (Morse, 2004; Warschauer & Matuchniak, 2010). It is possible workshops on animation might prove useful.

The YI is also hypothesized to improve educational attitudes. At the end of one year of participation, these youth showed no changes in their educational attitudes. However, in comparison with the summer, these results are mixed. The significant improvement in academic self-perceptions at the end of summer was not maintained at the end of year one, yet the

significant decline in goal valuation also disappeared, suggesting the latter improved. Given the lack of changes in this area, the year-round program should continue to provide interventions related to encouraging and promoting education. It is possible that the College Readiness Program needs to be modified to intervention in this important area. Efforts to increase these educational attitudes are warranted since all have been linked to higher academic achievement (Erkman, Caner, Sart, Borkan & Sahan, 2010; Pershey, 2010; Suldo, Shaffer & Shaunessy, 2008; McCoach & Siegle, 2003).

The YI is designed to incorporate positive youth development strategies into all aspects of the program, since participation in youth development programs has 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). At the end of one year, these alumni reported significantly higher positive core values, community involvement and caring adult relationships and somewhat higher life skills than at program entry. These are similar to the findings at the end of the summer, suggesting a longer-term impact on positive youth development. The increase in positive adult relationships may prove particularly meaningful given that such relationships have been shown to predict more successful adolescent development (Serido, Borden & Perkins, 2011; Dubois, Portillo, Rhodes, Silverthorn & Valentine, 2011), higher levels of school commitment and achievement, and less involvement in delinquency and other problem behaviors (Paxton, Valois, Huebner & Drane, 2006).

Overall, these findings are quite positive and suggest participation in the YI helped these youth to develop better leadership and technology skills while increasing protective factors related to positive youth development. Given the lack of change in educational attitudes, staff may want to consider program modifications that are specifically designed to address this area

for this class, and future alumni classes. Efforts to collect follow-up surveys from more youth will also help to better understand the longer-term impact of the program.

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