

**Evaluation of the Effects of the 2016 Long  
Beach YMCA Youth Institute Summer  
Program on Leadership and Technology  
Skills, Educational Attitudes and Positive  
Youth Development**

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## **Introduction**

The Youth Institute (YI) is 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 youth. 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 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. During the summer of 2016, the Long Beach YMCA Youth Institute (LBVI) served both middle and high school students.

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

Incoming youth participated in a full-time (35 hours per week), seven-week summer program. The first week was spent at a wilderness retreat at Mammoth Lakes which focused on team building, cultural diversity training, decision-making and life sciences. Participants were assigned to project teams that are maintained throughout the summer so there was an ethnic and gender mix when possible. Initiative games and a low-ropes course were used to promote group cohesion and leadership skills while improving problem-solving and communication skills. Cultural awareness and tolerance activities were also integrated and life sciences were introduced using the outdoor education model. This week was designed to help participants develop the group and problem-solving skills they needed to accomplish their summer tasks.

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

creation and design of a 3D product, (c) graphic design, (d) web site creation, (e) presentation and office software, (f) 3D animation, and (g) use of peripheral hardware (scanner, DV cameras, etc). A wide range of the latest software is used including Cinema 4D, After Effects, Stop Motion, Adobe Illustrator, Adobe Photoshop, InDesign, Adobe Premiere, iMovie, Final Cut Pro, PowerPoint, Keynote, Inspiration, GarageBand/ProTools, SketchUp, and CAD. Participants also learned how to connect, troubleshoot and use computer networks. All classes had a curriculum description that identified the pedagogical approach and linked the skill sets to be learned to school content standards. Products included the design and creation of a 3D product, animated logos, five to ten minute movies, a magazine focused on teen issues, and a website. All projects were designed to help participants gain literacy, math and higher level thinking skills, and were completed in teams. Participants were paid a \$500 stipend for the summer. In addition to traditional YI activities, youth went on a beach day, a Harbor Cruise sponsored by VOPAK, attended a human trafficking workshop, and volunteered at the 2016 YMCA National Gymnastics competition. This report presents the outcomes of the intensive summer program for the LBYI 2016 incoming class of first-time participants.

## **Methods**

### ***Data Collection***

Self-report survey data was collected from all entering 2016 Long Beach middle and high school Youth Institute (YI) Summer Program participants prior to the start and during the last week of the program. One survey was completed by the youth that measured leadership skills, technology skills, educational attitudes and positive youth development. The leadership skills questions came from a revised version of the Leadership Skills Inventory (Karnes & Chauvin, 2000), a standardized leadership instrument which measures nine areas of leadership skills. The positive youth development measures were created by the researchers to evaluate this project based on The Toolkit for Evaluating Positive Youth Development (The Colorado Trust, 2004).

The technology skills section was created by the research team and the items reflected the current YI technology curriculum. The three educational attitude measures came from The School Attitude Assessment Survey – Revised Edition (McCoach & Siegle, 2003), a standardized measure with strong reliability and validity.

### ***Sample***

Twenty-two (96%) of the 23 incoming YI participants who completed the 2016 summer program had the consents and data needed for inclusion in these analyses. As shown in Table 1, 64% were male. Latinos (86%) were the largest ethnic group, followed by Asian-American/Pacific Islanders (14%). Participants ranged in age from 12 to 17 years old, with an average age of 14 at program start. Forty-one percent were starting 9<sup>th</sup> grade when they started the program.

Table 1  
Description of Summer 2016 Long Beach Youth Institute Participants  
(N = 22)

	%	N
<b>Gender</b>		
Male	64%	14
Female	36%	8
<b>Ethnicity</b>		
Latino	86%	19
Asian American/Pacific Islander	14%	3
<b>Age at Start of Program</b>		
12	4%	1
13	32%	7
14	23%	5
15	14%	3
16	23%	5
17	4%	1

<i>Table 1 Continued</i>	%	N
Grade		
8 <sup>th</sup>	8%	2
9 <sup>th</sup>	41%	9
10 <sup>th</sup>	14%	3
11 <sup>th</sup>	14%	3
12 <sup>th</sup>	23%	5

## Analysis

### *Measures*

#### *Leadership Skill Scales*

Nine types of leadership skills were measured. The fundamentals of leadership scale ( $\alpha = .68$  to  $.72$ ) consisted of four items measuring general leadership skills. Questions included, “I can describe my own style of leadership” and “I can identify the positive and negative aspects of being a leader.” The written communication scale ( $\alpha = .72$  to  $.84$ ) consisted of six items. Questions included, “I know how to get and use written information” and “I can write my ideas so that others can read and understand them.” The speech communication scale ( $\alpha = .76$  to  $.78$ ) consisted of eight items. Questions included, “I can state and defend my viewpoint” and “I can deliver a prepared speech to a group.”

The character-building scale ( $\alpha = .63$  to  $.66$ ) consisted of six items. Questions included, “I try to deal honestly with others” and “I do what I say I will do.” The decision-making scale ( $\alpha = .70$ ) consisted of six items. Questions included, “I can accept advice from others” and “I can analyze facts before making a decision.” The group dynamics scale ( $\alpha = .75$  to  $.77$ ) consisted of 12 items. Questions included, “I keep in mind the best interests of the group” and “I can lead a group so that people feel safe expressing their opinions.” The problem-solving scale ( $\alpha = .83$  to

.85) consisted of five items. Questions included, “I can identify problems” and “I can select the best way to solve a problem.”

The personal skills scale ( $\alpha = .68$  to  $.75$ ) consisted of 12 items. Questions included, “I can acknowledge my mistakes,” and “I feel comfortable in most situations.” The planning skills scale ( $\alpha = .78$  to  $.87$ ) consisted of 10 items. Questions included, “I can meet deadlines,” and “I am flexible and can accept change.” 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-samples t-tests.

### ***Technology Skills***

Technology skills were measured using 12 individual questions measuring different types of technology skills. Participants rated themselves on a scale ranging from 1 “No Skills” to 4 “Excellent Skills.” Higher scores indicated better self-perceived skills. Skill changes were explored using paired-samples t-tests. Questions included; “How do you rate your skills in digital video editing,” and “How do you rate your skills in animation?” Three additional technology skills, including 3D product design, product design process & software, and digital music production (create, arrange, record & mix), were new this year, but due to a data collection issue, these were not measured on the post-assessment, and therefore, are not included in this report.

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

Three educational attitudes were measured including academic self-perceptions ( $\alpha = .87$  to  $.89$ ), goal valuation ( $\alpha = .95$  to  $.96$ ), and motivation/self-regulation ( $\alpha = .93$  to  $.94$ ). The academic self-perception scale consisted of seven 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 six items that measured

how much students valued education. 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 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-samples t-tests.

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

The cultural competence scale ( $\alpha = .72$  to  $.74$ ) 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 positive core value scale ( $\alpha = .58$  to  $.73$ ) consisted of four 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 ( $\alpha = .71$  to  $.77$ ) 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 believe I can make a difference.”

The social competency/responsible choices scale ( $\alpha = .55$  to  $.80$ ) 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 should work to get something, if I really want it.” The positive adult relationships scale ( $\alpha = .91$  to  $.95$ ) consisted of five 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 summer YI participants self-reported significantly higher leadership skill levels in fundamentals of leadership,  $t(21) = 2.94, p < .05$ ; written communication,  $t(21) = 2.52, p < .05$ ; group dynamics,  $t(21) = 2.86, p < .05$ ; personal skills,  $t(21) = 3.42, p < .05$ ; and planning skills,  $t(21) = 3.37, p < .05$ ; and somewhat higher speech communication,  $t(21) = 1.91, p < .10$ ; character-building,  $t(21) = 2.03, p < .10$ ; and decision-making skills,  $t(21) = 1.93, p < .10$ , at the end of the summer program.

Table 2

Summer 2016 Long Beach YI Participant Report of Changes in Leadership Skills

Skills	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.16	.50	22	2.50	.48	.34**
Written Communication	2.02	.51	22	2.27	.55	.26**
Speech Communication	2.11	.47	22	2.34	.42	.23*
Character Building	2.47	.32	22	2.66	.30	.19*
Decision-Making	2.30	.44	22	2.49	.34	.19*
Group Dynamics	2.21	.32	22	2.43	.35	.22**
Problem-Solving	2.05	.46	22	2.15	.41	.10
Personal	2.28	.31	22	2.50	.30	.22**
Planning	1.99	.38	22	2.25	.48	.26**

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

### ***Technology Skills***

Technology skills were measured by participant self-report of their ability to use 12 types of technology. The response categories ranged from 1 “No Skills” to 4 “Excellent Skills.”

Higher scores indicated greater skill level. As shown in Table 3, these youth reported significantly higher skills in 92% of the technology skills including sending email,  $t(21) = 2.41$ ,  $p < .05$ ; Internet use,  $t(21) = 4.69$ ,  $p < .05$ ; using data processing software,  $t(21) = 2.66$ ,  $p < .05$ ; digital video filming,  $t(21) = 3.55$ ,  $p < .05$ ; using the computer to complete school assignments,  $t(21) = 3.92$ ,  $p < .05$ ; digital music creation (production & software),  $t(21) = 5.27$ ,  $p < .05$ ; presentation software,  $t(21) = 2.34$ ,  $p < .05$ ; digital video editing software,  $t(21) = 3.25$ ,  $p < .05$ ; graphic design,  $t(21) = 4.33$ ,  $p < .05$ ; digital photography,  $t(21) = 8.63$ ,  $p < .05$ ; and animation,  $t(21) = 2.94$ ,  $p < .05$ , at the end of the summer program.

Table 3  
Summer 2016 Long Beach YI Participant Report of Changes in Technology Skills

Technology	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Email use.	2.73	.70	22	3.14	.83	.41**
Internet use (visit websites/surf web)	3.09	.75	22	3.68	.48	.59**
Word processing software (Word) to write reports and/or letters	3.14	.71	22	3.41	.59	.27
Data processing software (Excel) for databases or spreadsheets	2.18	.96	22	2.64	1.00	.45**
Digital Video Filming (Camera, Lighting, etc.)	2.23	1.07	22	3.00	.62	.77**
Using the computer to complete school assignments	3.00	.69	22	3.50	.60	.50**
Digital music creation; production and software (GarageBand, Reason, ProTools, Mics, etc.)	1.86	.89	22	2.95	.84	1.09**
Presentation software (PowerPoint, Keynote, Inspiration)	2.77	.97	22	3.23	.75	.45**

<i>Table 3 Continued</i>	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Digital Video Editing (Final Cut Pro, iMovie, Adobe Premiere, etc.)	2.27	1.08	22	3.09	.87	.82**
Graphic Design (Photoshop, Illustrator, InDesign)	2.05	1.05	22	3.09	.75	1.04**
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.)	1.82	.66	22	3.14	.71	1.32**
Animation (Cinema 4D, After Effects, Stop Motion)	1.73	.83	22	2.50	.96	.77**

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

### *Educational Attitudes*

As shown in Table 4, participants self-reported a significant improvement in academic self-perceptions,  $t(21) = 2.27, p < .05$ , at the end of the summer program.

Table 4  
Summer 2016 Long Beach 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	5.04	1.12	22	5.45	.91	.42**
Goal Valuation	6.24	.96	22	6.31	.93	.07
Motivation/Self-Regulation	5.45	.95	22	5.43	1.00	.01

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

### *Positive Youth Development*

As shown in Table 5, participants self-reported significant improvement in the areas of positive core values,  $t(21) = 2.16, p < .05$ ; sense of self,  $t(21) = 3.03, p < .05$ ; and social competency/personal responsibility,  $t(21) = 3.26, p < .05$ ; and somewhat of an improvement in cultural competence,  $t(21) = 1.73, p < .10$ , at the end of the summer program.

Table 5  
 Summer 2016 Long Beach YI Participant Report of Changes in Positive Youth Development Scales

Development Scale	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Cultural Competence	3.42	.37	22	3.58	.36	.16*
Positive Core Values	3.20	.44	22	3.43	.55	.23**
Sense of Self	3.13	.46	22	3.35	.52	.22**
Social Competency/Personal Responsibility	3.22	.34	22	3.40	.43	.18**
Caring Adult Relationships	3.26	.73	22	3.44	.75	.17

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

### Conclusions

Overall, the results of the 2016 Long Beach Youth Institute Summer Program were quite positive since significant improvements were found on measures in all of the domains hypothesized to be influenced by program participation. Although the absence of a control group makes it challenging to definitively conclude that these changes were completely the result of program participation, it is unlikely that such changes would occur without some type of intervention. At the end of the summer, these youth rated themselves somewhat (speech communication, character building, decision-making) or significantly (fundamentals of leadership, written communication, group dynamics, personal and planning) higher on almost all (89%) leadership skill areas. Thus, it appears that program participation helped youth to develop a diverse range of leadership skills that should prove beneficial to them both in school, the larger community, and in their future careers. This is particularly true 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). Additionally, it is likely that the gains in written communication and speech communication, both of which have been linked to better academic performance (Adachi & Willoughby, 2013), will prove beneficial as these youth return to school.

These youth self-reported significantly (e-mail, Internet use, data processing, digital video filming, using computers to complete school assignments, digital music creation, presentation software, digital video editing, graphic design, digital photography, animation) better technology skills at the end of the summer on all but one of the technology areas measured here. These findings suggest that the summer program, with its intensive technology focus, was able to teach participants a wide variety of high-end digital media skills. This is encouraging since people with strong technological skills are becoming more highly valued in the workforce (Baron, 2002).

Another anticipated outcome of the YI is improved educational attitudes, unlike the past three years, when youth reported significant improvements on all measures of educational attitudes, this cohort reported a significant improve only in the area of academic self-perceptions. While this is encouraging given research has indicated that higher academic self-perceptions are both related to, and predictive of, better academic outcomes (Erkman, Caner, Sart, Borkan & Sahan, 2010; Pershey, 2010), year-round efforts should also focus on increasing both goal valuation and motivation/self-regulation since both have been found to be related to higher levels of achievement among high school students (Suldo, Shaffer & Shaunessy, 2008; McCoach & Siegle, 2003). YI staff should continue to support academics and expose youth to higher education in the year-round program to further increase the likelihood of positive academic achievement, high school graduation, and entry into higher education.

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, Tolman & Wilson, 2003), while reducing involvement in adolescent problem behaviors (Meltzer, Fitzgibbon, Leahy & Petsko, 2006; Roffman, Pagano & Hirsch, 2001). These youth reported significant improvement in positive core values, sense of self, social competency/personal responsibility and some improvement in cultural competence. Thus, it appears that program involvement helped participants to develop some protective factors that should reduce the likelihood of future involvement in problem behaviors. Given that positive adult relationships have also 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), efforts to build caring staff-youth relationships should be ongoing.

In conclusion, the program appears to have increased the social and interpersonal competence, technology skills, positive youth development, and, to some extent, the educational attitudes of these youth, all of which have been found to be useful in higher education and the workforce (Lippman, Atienza, Rivers & Keith, 2008; Warschauer & Matuchniak, 2010). These outcomes are particularly positive given the summer program was one week shorter than usual. In addition to the regular year-round programming, efforts to promote educational attitudes and caring adult relationships may prove particularly beneficial for this YI cohort.

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