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

Sandra L. Kirkner, M.A.-R.
Research Associate

Julie O'Donnell, Ph.D., M.S.W.
Professor

School of Social Work
California State University, Long Beach

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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 three Long Beach YMCA Youth Institute sites served both middle and high school students.

Intensive Technology Summer Program

Incoming youth participated in a full-time (35 hours per week), six-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 at all sites received a monetary stipend for the summer, ranging between $200 and $500. This report presents the outcomes of first-time participants in the 2016 intensive summer Youth Institute programs at the Long Beach, North Long Beach and Lakewood-Hawaiian Gardens sites.

Methods

Data Collection

Self-report survey data was collected from all entering 2016 Long Beach sites 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

Thirty-six (97%) of the 37 new YI participants who completed the 2016 Long Beach summer programs had consents and both pre- and post-assessment data and are included in these analyses. As shown in Table 1, the Long Beach YMCA had the most participants (61%), followed by North Long Beach (28%). A little over half (58%) of participants were male. Latinos (75%) were the largest ethnic group, followed by African-Americans (11%). Participants ranged from 12 to 17 years old, with an average age of 14. Sixty-nine percent were high school youth.

Table 1
Description of Summer 2016 Youth Institute Participants at all Long Beach Sites
(N = 36)

	%	N
YI Site		
Long Beach	61%	22
North Long Beach	28%	10
Lakewood-Hawaiian Gardens	11%	4
Gender		
Male	58%	21
Female	42%	15
Ethnicity		
Latino	75%	27
African-American	11%	4
Asian American/Pacific Islander	8%	3
Multicultural	6%	2

Table 1 Continued	%	N
Age at Start of Program		
12	8%	3
13	39%	14
14	22%	8
15	11%	4
16	14%	5
17	6%	2
Grade		
7^{th}	6%	2
8^{th}	25%	9
9^{th}	36%	13
10^{th}	8%	3
11^{th}	11%	4
12^{th}	14%	5

Analysis

Measures

Leadership Skill Scales

Nine types of leadership skills were measured. The fundamentals of leadership scale (α = .75 to .81) 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 (α = .75 to .82) 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 (α = .76 to .85) 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 (α = .65 to .81) 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 (α = .73 to .80) 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 (α = .79 to .86) 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 (α = .73 to .79) 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 (α = .78 to .83) consisted of 12 items. Questions included, "I can acknowledge my mistakes," and "I feel comfortable in most situations." The planning skills scale (α = .82 to .86) 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 (α = .86 to .88), goal valuation (α = .92 to .95), and motivation/self-regulation (α = .91 to .92). 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 (α = .67 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 life skills scale (α = .56 to .73) consisted of five items measuring proficiencies that allow youth to transition into and achieve successful adulthood. Questions included, "I am good at making friends" and "I am good at taking care of problems without fighting or violence."

The sense of self scale (α = .67 to .79) 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 (α = .58 to .77) 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 community involvement scale (α = .65 to .67) 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 (α = .89 to .92) 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, summer YI participants did not report significant changes on any of the leadership skill measures at the end of the summer program.

Table 2

Summer 2016 All Long Beach Sites Participant Report of Changes in Leadership Skills

	Before Summer			End of Summer		
Skills	**Mean**	**SD**	**N**	**Mean**	**SD**	**Difference**
Fundamentals of Leadership	2.26	.55	36	2.40	.56	.14
Written Communication	2.11	.52	36	2.21	.56	.10
Speech Communication	2.15	.47	36	2.23	.52	.08
Character Building	2.56	.32	36	2.54	.40	-.02
Decision-Making	2.38	.42	36	2.41	.42	.03
Group Dynamics	2.28	.38	36	2.36	.42	.08
Problem-Solving	2.09	.57	36	2.14	.43	.05
Personal	2.35	.37	36	2.38	.40	.03
Planning	2.12	.44	36	2.19	.51	.07

*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.” As shown in Table 3, participants reported significantly higher skills in all technology areas including email use, t (35) = 2.58, $p < .05$; Internet use, t (35) = 3.61, $p < .05$; data processing software, t (35) = 2.32, $p < .05$; digital video filming, t (35) = 3.03, $p < .05$; using the computer to complete school assignments, t (35) = 2.38, $p < .05$; digital music creation, t (34) = 5.28, $p < .05$; digital video editing, t (35) = 4.23, $p < .05$; graphic design, t (35) = 4.24, $p < .05$; digital photography, t (35) = 5.41, $p < .05$; and animation, t (35) = 3.18, $p < .05$, and somewhat higher skills in presentation software, t (35) = 1.99, $p < .10$, at the end of the summer program.

Table 3

Summer 2016 All Long Beach Sites Participant Report of Changes in Technology Skills

	Before Summer			End of Summer		
Technology	**Mean**	**SD**	**N**	**Mean**	**SD**	**Difference**
Email use.	2.89	.75	36	3.19	.79	.31**
Internet use (visit websites/surf web)	3.22	.76	36	3.64	.49	.42**
Word processing software (Word) to write reports and/or letters	3.22	.68	36	3.33	.68	.11
Data processing software (Excel) for databases or spreadsheets	2.39	.96	36	2.72	.97	.33**
Digital Video Filming (Camera, Lighting, etc.)	2.50	1.18	36	3.08	.69	.58**
Using the computer to complete school assignments	3.19	.71	36	3.47	.61	.28**
Digital music creation; production and software (GarageBand, Reason, ProTools, Mics, etc).	2.00	.97	35	2.94	.80	.94**
Presentation software (PowerPoint, Keynote, Inspiration)	2.92	.87	36	3.22	.76	.31*
Digital Video Editing (Final Cut Pro, iMovie, Adobe Premiere, etc.)	2.39	1.08	36	3.19	.79	.81**
Graphic Design (Photoshop, Illustrator, InDesign)	2.11	1.06	36	3.03	.81	.92**
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.)	2.03	.84	36	3.08	.81	1.06**
Animation (Cinema 4D, After Effects, Stop Motion)	1.86	.93	36	2.47	.88	.61**

*p < .10 **p < .05

Educational Attitudes

As shown in Table 4, these youth reported a significant improvement in academic self-perceptions, t (35) = 2.11, $p < .05$, at the end of the summer program.

Table 4

Summer 2016 All Long Beach Sites Participant Report of Changes in Educational Attitudes

	Before Summer			End of Summer		
Educational Attitude Scale	**Mean**	**SD**	**N**	**Mean**	**SD**	**Difference**
Academic Self-Perceptions	5.22	1.01	36	5.50	.86	.27**
Goal Valuation	6.21	.89	36	6.15	1.00	-.06
Motivation/Self-Regulation	5.42	.87	36	5.42	.95	.00

*p < .10 **p < .05

Positive Youth Development

As shown in Table 5, summer YI participants did not report any significant changes on any of the positive youth development measures at the end of the summer program.

Table 5

Summer 2016 All Long Beach Sites Participant Report of Changes in Positive Youth Development Scales

	Before Summer			End of Summer		
Development Scale	**Mean**	**SD**	**N**	**Mean**	**SD**	**Difference**
Cultural Competence	3.42	.38	36	3.46	.42	.05
Life Skills	3.18	.39	36	3.28	.44	.11
Sense of Self	3.22	.43	36	3.22	.52	.00
Social Competency/Personal Responsibility	3.29	.35	36	3.32	.42	.03
Community Involvement	2.92	.49	36	3.05	.54	.13
Caring Adult Relationships	3.36	.67	36	3.43	.66	.07

*p < .10 **p < .05

Conclusions

This report investigated the impact of the 2016 Long Beach Youth Institute programs in Long Beach, North Long Beach and Lakewood-Hawaiian Gardens. While the Long Beach site

has been in existence for many years, the North Long Beach site was in its first year and it was the second year for Lakewood-Hawaiian Gardens. Individual reports are available for the Long Beach and North Long Beach sites, however, the number of participants at Lakewood-Hawaiian Gardens was too small for statistical analyses. Overall the findings across the three sites were mixed. One of the goals of the YI is to enhance leadership skills, however, there were no significant changes in 2016 LBYI programs in the area of leadership skills. Thus, it will be important for staff to integrate ongoing leadership skill activities into the year-round program to help these sites better meet this program goal. It might also prove beneficial for staff to plan additional leadership activities and opportunities into the 2017 summer program, particularly at the North Long Beach site.

The largest gains by far for the overall Long Beach 2016 YI summer cohort were in the area of technology. These youth self-reported significantly (e-mail, Internet use, data processing, digital video filming, using computers to complete school assignments, digital music creation, digital video editing, graphic design, digital photography, animation) and somewhat better presentation software skills. 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. Participants across these three sites reported a significant improvement in academic self-perceptions. 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). However, year-round efforts should 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. It may be beneficial to provide additional educational supports such as homework help, college field trips, class selection workshops or academic counseling support to these youth in the coming year to positively influence these important educational attitudes.

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). Thus, it is somewhat surprising that there were no significant changes on any of the positive youth development measures. Given positive adult 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), efforts to build caring staff-youth relationships should be ongoing at the sites. In addition, creating opportunities for community involvement may prove helpful given community involvement has been linked to better academic achievement, increased self-efficacy, better attitudes toward school and education, higher levels of community involvement, and better leadership and empathy skills (Celio, Durlak & Dymnicki, 2011). Efforts to train, monitor and coach staff on how to implement positive youth development practices are indicated.

In conclusion, the Long Beach YI programs appear to have primarily increased technology skills and, to some extent, the educational attitudes of these youth. To assist the programs reach their goals, the year-round programs should emphasize positive youth development and improve leadership skills while monitoring and encouraging educational attitudes and academic achievement. The focus group information gathered for both North Long Beach and Lakewood-Hawaiian Gardens might also prove useful in developing strategies to improve these outcomes next year.

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