End of Year One Evaluation of Leadership, Technology, Educational Attitudes and Positive Youth Development Outcomes for Long Beach YMCA High School Youth Institute 2013 Alumni

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

Julie O'Donnell, Ph.D., M.S.W.
Professor and Director of Research

Prisma Bracho
Research Assistant

Child Welfare Training Centre
School of Social Work
California State University, Long Beach

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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 2013 YMCA Youth Institute participants prior to the start of the summer program, at the end of the summer, 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

Eighty youth completed the summer Long Beach High School YI in 2013. Of these, 46 (57%) 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 17 years of age, with the average age of 14 at the start of the program. Sixty-one percent were male. Latinos (61%) were the largest ethnic group, followed by Asian-Americans (13%). Sixty-seven 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, ethnicity, age, or grade level.

Table 1

Description of 2013 Youth Institute Alumni Subsample

(N = 46)

	%	N
Gender		
Male	61%	28
Female	39%	18
Ethnicity		
Latino	61%	28
Asian-American	13%	6
African-American	9%	4
Filipino/Pacific Islander	9%	4
Multicultural	6%	3
White	2%	1
Age at Start of Program		
13	30.5%	14
14	24%	11
15	26%	12
16	17.5%	8
17	2%	1
Grade		
8th	39%	18
9th	28%	13
10th	22%	10
11th	9%	4
12th	2%	1

Analysis

Measures

Leadership Skill Scales

Nine types of leadership skills were measured including fundamentals of leadership (α = .82 to .88), written communication (α = .90 to .91), speech communication (α = .88 to .90), character-building (α = .85 to .88), decision-making (α = .79 to .84), group dynamics (α = .71 to .92), problem-solving (α = .77 to .87), personal skills (α = .83 to .90), and planning skills (α = .85 to .94). 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 (α = .84 to .89) 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 (α = .85 to .96) 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 (α = .91 to .93) 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 (α = .75 to .79) 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 (α = .78 to .83) 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 (α = .72 to .81) 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 sense of self scale (α = .72 to .82) 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 personal/social responsibility choices scale (α = .61 to .71) consisted of five items measuring good behavior, hard work, personal responsibility and fairness. Questions included "I am good at saying no to things I know are wrong" and "I think I should work to get something if I really want it."

The community involvement scale (α = .70 to .79) 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 (α = .85 to .89) 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 2013 during the year immediately following their graduation. Total involvement ranged from 1 to 350 with a mean of 60. The largest number of participants used the digital arts lab or received personal or academic advising. The most frequent activity was using the digital arts lab. There were nine special events this year including a movie night (*n* =20), a spring feast (*n* =16), a movie day (*n* =8), the Getty Museum (n =4), the Grand Prix of Long Beach (*n* =5), a beach volleyball day (*n* =5), a beach bonfire day (*n* =5), The United Way Walk for the Homeless (*n* =2), and a pool day (*n* =2). There were also two trips including the Kern River (*n* =16), and the Youth Adult Retreat at Camp Oakes (*n* =1). There were also four YI meetings, three YI dinners, one surf club meeting and one hiking club meeting during the year.

Table 2

Extent and Type of Involvement in Program Activities

2013 Youth Institute Alumni

August, 2013 – June, 2014

	Class of 2013			
Activity	**N**	**Mean**	**SD**	**Range**
Digital Arts Lab	71	35	42	1 - 189
Personal/Home Advising	61	14	17	1 - 75
Academic Advising	53	10	11	1 - 53
CAP Workshops	52	3	4	1 - 14
Alumni Advanced Media Classes	21	2	1	1 - 3
Community Service: Technology Tutoring	15	9	2	7 - 16
Special Events (9)	28	2	2	1 - 9
YI Meetings (4)	30	2	1	1 - 4
Alumni Dinners (3)	28	2	2	1 - 9
Trips (2 – Kern River, Camp Oakes)	17	1	N/A	N/A
Surf Club	5	1	N/A	N/A
Hiking Club	2	1	N/A	N/A

Changes in Leadership Skills

As shown in Table 3, participants self-reported significant improvement in all nine leadership skill areas including fundamentals of leadership, t (45) = 5.88, $p < .05$; written communication, t (44) = 5.47, $p < .05$; speech communication, t (44) = 5.60, $p < .05$; character building, t (45) = 4.17, $p < .05$; group dynamics, t (44) = 4.79, $p < .05$; decision-making, t (44) = 5.63, $p < .05$; problem-solving, t (44) = 2.88, $p < .05$; personal skills, t (45) = 4.94, $p < .05$; and planning skills, t (45) = 4.47, $p < .05$, at the end of the first year.

Additional analyses revealed significant improvement in decision making skills, t (45) = 2.38, $p < .05$; and some improvement in written communication skills, t (44) = 1.92, $p < .10$, between the end of summer and the end of the first year.

Table 3

2013 YI Alumni Report of Changes in Leadership Skills

	Beginning of Program			End of Year One		
Scale	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.19	.60	46	2.60	.36	.41**
Written Communication	1.93	.65	45	2.40	.52	.48**
Speech Communication	1.94	.57	45	2.40	.47	.45**
Character Building	2.45	.35	46	2.70	.30	.25**
Group Dynamics	2.27	.49	45	2.66	.36	.38**
Decision-Making	2.35	.44	45	2.72	.29	.36**
Problem-Solving	2.36	.61	45	2.61	.39	.25**
Personal	2.38	.39	46	2.65	.30	.28**
Planning	2.23	.57	46	2.60	.32	.37**

**p<.05; *p<.10

Changes in 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 4, 2013 alumni reported significant (92%) and some (8%) gains in all of the thirteen technology skills, including email use, t (45) = 3.48, $p < .05$; Internet use, t (45) = 3.49, $p < .05$; word processing software, t (44) = 4.25, $p < .05$; data processing software, t (44) = 4.18, $p < .05$; digital video filming, t (45) = 5.18, $p < .05$; using computers to complete school assignments, t (44) = 2.89, $p < .05$; digital music creation, t (44) = 5.07, $p < .05$; presentation software, t (45) = 5.38, $p < .05$; digital video editing,

t (45) = 5.21, $p < .05$; graphic design, t (44) = 5.32, $p < .05$; digital photography, t (45) = 4.53 $p < .05$; and animation, t (45) = 3.78, $p < .05$; and somewhat more skills in web design, t (44) = 1.82, $p < .10$, at the end of their first year.

Additional analyses revealed significant improvement in web design, t (45) = 3.79, $p < .05$; presentation software, t (45) = 2.07, $p < .05$; and graphic design, t (45) = 2.54, $p < .05$; and a somewhat higher skill level in music creation, t (43) = 1.86, $p < .10$, between the end of summer and the end of the first year.

Table 4

2013 Alumni YI Participant Report of Changes in Technology Skills

	Before Summer			End of Summer		
Technology	Mean	SD	N	Mean	SD	Difference
Email use.	3.02	.95	46	3.43	.72	.41**
Internet use (visit websites/surf web).	3.50	.66	46	3.80	.40	.30**
Web design (construction, layout, domain registration, maintenance, applications, Dreamweaver, Photoshop, HTML, peripheral configuration).	2.13	.92	45	2.44	.99	.31*
Word processing software (Word) to write reports and/or letters.	3.07	.94	45	3.60	.65	.53**
Data processing software (Excel) for databases or spreadsheets.	2.02	1.08	45	2.62	.98	.60**
Digital Video Filming (Camera, lighting, etc.)	2.24	1.16	46	3.07	.68	.83**
Using the computer to complete school assignments.	3.47	.76	45	3.73	.54	.27**
Digital music creation (GarageBand, Reason, Logic Pro).	2.13	1.08	45	2.93	.89	.80**
Presentation software (Powerpoint, Keynote, Inspiration).	2.54	1.09	46	3.20	.88	.65**
Digital Video Editing (Final Cut Pro, iMovie, After Effects, etc.).	2.17	1.10	46	3.09	.91	.91**
Graphic Design (Photoshop, Illustrator, InDesign).	2.18	1.15	45	3.02	.81	.84**
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.).	2.15	1.09	46	2.93	.97	.78**
Animation (Cinema 4D, After Effects, Stop Motion).	1.59	.86	46	2.11	1.08	.52**

**p<.05; *p<.10

Changes in Educational Attitudes

As shown in Table 6, participants self-reported significant improvement in academic self-perceptions, t (45) = 4.35, $p < .05$; and motivation/self-regulation, t (45) = 4.98, $p < .05$, at the end of the first year. Additional analyses revealed somewhat of an improvement in goal valuation, t (45) = 1.84, $p < .10$, between the end of summer and the end of the first year.

Table 6

2013 YI Alumni Report of Changes in Educational Attitudes

	Beginning of Program			End of Year One		
Scale	Mean	SD	N	Mean	SD	Difference
Academic Self-Perceptions	5.35	1.08	46	5.84	.81	.49**
Goal Valuation	6.39	1.02	46	6.57	.54	.17
Motivation/Self-Regulation	5.05	1.16	46	5.79	.83	.74**

**p<.05; *p<.10

Changes in Positive Youth Development

As shown below in Table 7, 2013 alumni self-reported significantly higher cultural competence, t (44) = 2.98, $p < .05$; life skills, t (45) = 6.35, $p < .05$; positive core values, t (43) = 6.81, $p < .05$; sense of self, t (43) = 4.07, $p < .05$; personal/social responsibility, t (44) = 3.71, $p < .05$; community involvement, t (39) = 4.94, $p < .05$; and caring adult relationships, t (40) = 3.49, $p < .05$, at the end of year one.

Additional analyses revealed significantly higher life skills, t (45) = 2.88, $p < .05$; and somewhat higher positive core values, t (44) = 1.88, $p < .10$, between the end of summer and the end of the first year.

Table 7

2013 YI Alumni Participant Report of Changes in Positive Youth Development

	Beginning of Program		End of Year One			
Development Scale	Mean	SD	N	Mean	SD	Difference
Cultural Competence	3.58	.40	45	3.77	.27	.19**
Life Skills	3.20	.38	46	3.52	.32	.32**
Positive Core Values	3.29	.40	44	3.63	.37	.34**
Sense of Self	3.21	.49	44	3.53	.42	.32**
Personal/Social Responsibility	3.40	.39	45	3.66	.33	.26**
Community Involvement	2.94	.57	40	3.32	.51	.38**
Caring Adult Relationships	3.18	.79	41	3.67	.51	.48**

**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. It is quite encouraging to note that almost all of the positive outcomes found in the summer (some of the best in the program history) were maintained, and, in a couple of instances enhanced by participation in the year-round program. In fact, YI youth showed significant growth in all of the areas hypothesized to be influenced by the model including leadership and technology skills, educational attitudes, and positive youth development. While the absence of a control group makes it difficult to definitively conclude that YI participation was responsible for these changes, it appears unlikely that so much change would occur in such diverse domains unless some intervention was present.

At the end of one year, alumni reported significant improvement in all leadership skill areas, indicating 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. In particular, participation in the year-round program helped these youth to further hone their decision making and possibly written communication skills. 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 21st century (The Partnership for 21st Century Learning Skills, 2003).

It appears 2013 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 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 and somewhat better web design skills. Between the end of the summer and the end of the year, youth rated themselves significantly higher in web design, presentation software, and graphic design and somewhat better in digital music creation. These findings suggest that the YI program, with its intensive technology focus, was able to teach participants a wide variety of high-end digital media skills during the summer that they not only maintained but substantially improved with their involvement in the year-round alumni program. This is encouraging since people with strong technological skills are becoming more highly valued in the workforce (Baron, 2002). These findings are also very positive given low-income youth have been shown to have lower levels of technology access and skill; both of which are critical for school and productive adult employment (Morse, 2004; Warschauer & Matuchniak, 2010).

The YI is also hypothesized to improve educational attitudes. At the end of one year of participation, these youth continued to report significantly higher academic self-perceptions and motivation/self-regulation. These findings are encouraging given these youth were in school at the same time. These changes are important since research has indicated that motivation/self-

regulation has been found to be related to higher levels of achievement among high school students (Suldo, Shaffer & Shaunessy, 2008; McCoach & Siegle, 2003) and higher academic self-perceptions are both related to, and predictive of, better academic outcomes (Erkman, Caner, Sart, Borkan & Sahan, 2010; Pershey, 2010). Thus, these attitude improvements may well help participants to achieve better academically in the coming years.

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 significant improvements on all of the positive youth development measures, including cultural competence, life skills, positive core values, sense of self, personal/social responsibility, community involvement and caring adult relationships, than at program entry. In particular, the year-round program appears to have positively influenced life skills and positive core values. Involvement in the year-round community service projects may have contributed to the increase in community involvement found here as well as some of the other changes since service learning 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). The increase in positive adult role models should also prove beneficial as having such relationships has also been shown to predict more successful adolescent development (Serido, Borden & Perkins, 2011; DuBois, Portillo, Rhodes, Silverthorn & Valentine, 2011).

Overall, these findings are extremely positive and suggest participation in the YI helped these youth to develop better leadership and technology skills and educational attitudes while

increasing protective factors related to positive youth development over the long-term. Program participation appears to have increased the social and interpersonal competence, educational attitudes and technology skills of youth, all of which have been found to be useful in higher education and the workforce (Lippman, Atienza, Rivers & Keith, 2008; Warschauer & Matuchniak, 2010). The results of this evaluation provide additional evidence that the YI program can successfully influence youth in all of the areas hypothesized in the model, even in the long-term. YI participation appears to have helped youth develop and enhance skills that are critical for positive development, academic achievement, and career success.

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