

Evaluation of the Effects of the 2014 Long Beach YMCA Youth Institute Summer Program 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 and Director of Research**

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

September, 2014

Table of Contents

	Page
Introduction to the Youth Institute	3
Methods	4
Data Collection	4
Sample	5
Analysis	6
Leadership Skill Scales	6
Technology Skills	7
Educational Attitude Scales	7
Positive Youth Development Scales	7
Results	9
Leadership Skills	9
Technology Skills	9
Educational Attitudes	12
Positive Youth Development	12
Conclusions	13
References	16

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 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 youth participated in a full-time (35 hours per week), eight-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) 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, iMovie, Final Cut Pro, PowerPoint, Keynote, Pagemaker, Flash, Extensis InDesign, GarageBand and Macromedia Dreamweaver. 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 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. This report presents the outcomes of the intensive summer YI program for the 2014 incoming class of first-time participants.

Methods

Data Collection

Self-report survey data was collected from all entering 2014 Long Beach 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

All 54 (100%) of the incoming YI participants who completed the 2014 summer program had the consents and data needed for inclusion in these analyses. As shown in Table 1, 57% were male. Latinos (70%) were the largest ethnic group, followed by African-Americans (18%). Participants ranged in age from 13 to 16 years old, with an average age of 14 at program start. Fifty percent were starting 9th grade when they started the program. Eleven (20%) had been in the middle school Youth Institute before entering the high school program.

Table 1
Description of Summer 2014 Long Beach Youth Institute Participants
(N = 54)

	%	N
Gender		
Male	57%	31
Female	43%	23
Ethnicity		
Latino	70%	38
African-American	18%	10
Asian American/Pacific Islander	6%	3
Bi/Multicultural	6%	3
Age at Start of Program		
13	33%	18
14	37%	20
15	20%	11
16	9%	5
Grade		
9 th	50%	27
10 th	29%	16
11 th	17%	9
12 th	4%	2

Analysis

Measures

Leadership Skill Scales

Nine types of leadership skills were measured. The fundamentals of leadership scale ($\alpha = .66$ to $.81$) consisted of five items measuring general leadership skills. Questions included, “I understand the meaning of the term leader” and “I am able to identify the various styles of leadership.” The written communication scale ($\alpha = .76$ to $.81$) 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 ($\alpha = .78$ to $.84$) consisted of seven items. Questions included, “I can speak in a clear and concise manner” and “I can summarize the ideas of the group and express them.”

The character-building scale ($\alpha = .74$ to $.81$) consisted of ten items. Questions included, “I understand my own feelings” and “I care about others and treat others fairly.” The decision-making scale ($\alpha = .75$ to $.77$) 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 ($\alpha = .83$ to $.85$) consisted of 11 items. Questions included, “I can lead a group discussion” and “I can lead a group so that people feel safe expressing their opinions.” The problem-solving scale ($\alpha = .76$) consisted of five items. Questions included, “I know and use the elements of problem-solving” and “I can select the best way to solve a problem.”

The personal skills scale ($\alpha = .83$) consisted of 12 items. Questions included, “I am self-confident,” and “I feel comfortable in most situations.” The planning skills scale ($\alpha = .85$ to $.87$) consisted of 11 items. Questions included, “I have organizational skills,” and “I set reachable goals.” 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 13 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 web design,” and “How do you rate your skills in presentation software?”

Educational Attitude Scales

Three educational attitudes were measured including academic self-perceptions ($\alpha = .87$ to $.89$), goal valuation ($\alpha = .92$ to $.93$), and motivation/self-regulation ($\alpha = .94$). 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 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-samples t-tests.

Positive Youth Development Scales

The cultural competence scale ($\alpha = .76$ to $.81$) consisted of six 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 ($\alpha = .64$ to $.68$) consisted of 5 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 telling others about my ideas and feelings.”

The positive core value scale ($\alpha = .66$ to $.69$) 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 ($\alpha = .64$ to $.67$) consisted of five 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 ($\alpha = .69$ to $.73$) 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 think I should work to get something if I really want it.” The community involvement scale ($\alpha = .80$ to $.83$) consisted of five 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 ($\alpha = .90$ 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 skill levels in all nine leadership skill areas including fundamentals of leadership, $t(53) = 3.06, p < .05$; written communication, $t(53) = 3.63, p < .05$; speech communication, $t(53) = 4.24, p < .05$; character-building, $t(53) = 3.38, p < .05$; decision-making, $t(53) = 3.13, p < .05$; group dynamics, $t(53) = 3.77, p < .05$; problem-solving, $t(53) = 3.08, p < .05$; personal, $t(53) = 2.76, p < .05$; and planning skills, $t(53) = 3.89, p < .05$, at the end of the summer program.

Table 2
Summer 2014 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	2.46	.51	54	2.66	.32	.20**
Written Communication	2.15	.59	54	2.43	.49	.28**
Speech Communication	2.16	.57	54	2.48	.42	.32**
Character Building	2.57	.39	54	2.73	.27	.17**
Decision-Making	2.34	.48	54	2.55	.40	.21**
Group Dynamics	2.32	.45	54	2.53	.38	.21**
Problem-Solving	2.27	.50	54	2.49	.42	.23**
Personal	2.39	.43	54	2.56	.38	.16**
Planning	2.20	.51	54	2.45	.40	.25**

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

Technology Skills

Technology skills were measured by participant self-report of their ability to use 13 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 eleven (85%) of the thirteen technology skills including sending

email, $t(53) = 2.47, p < .05$; web design, $t(53) = 4.78, p < .05$; using word processing software, $t(53) = 4.17, p < .05$; using data processing software, $t(52) = 3.19, p < .05$; digital video filming, $t(52) = 8.08, p < .05$; digital music creation, $t(53) = 6.97, p < .05$; presentation software, $t(53) = 4.20, p < .05$; digital video editing software, $t(51) = 6.69, p < .05$; graphic design, $t(53) = 6.81, p < .05$; digital photography, $t(53) = 3.69, p < .05$; and animation, $t(53) = 5.19, p < .05$, at the end of the summer program.

Participants also reported some improvement in the technology areas of internet use $t(53) = 1.69, p < .10$, at the end of the summer program.

Table 3
 Summer 2014 Long Beach YI Participant Report of Changes in Technology Skills

Technology	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Email use.	3.06	.81	54	3.35	.78	.30**
Internet use (visit websites/surf web).	3.65	.52	54	3.74	.48	.09*
Web design (construction, layout, domain registration, maintenance, applications, Dreamweaver, Photoshop, HTML, peripheral configuration).	2.24	.99	54	2.85	.71	.61**
Word processing software (Word) to write reports and/or letters.	3.20	.81	54	3.60	.53	.39**
Data processing software (Excel) for databases or spreadsheets.	2.06	1.04	53	2.49	.99	.43**
Digital Video Filming (Camera, lighting, etc.)	2.09	1.04	53	3.23	.87	1.13**
Using the computer to complete school assignments.	3.40	.77	53	3.53	.70	.13
Digital music creation (GarageBand, Reason, Logic Pro).	2.11	.97	54	3.02	.84	.91**
Presentation software (Powerpoint, Keynote, Inspiration).	2.70	1.09	54	3.30	.84	.59**
Digital Video Editing (Final Cut Pro, iMovie, After Effects, etc.).	2.02	1.06	52	3.06	.92	1.04**
Graphic Design (Photoshop, Illustrator, InDesign).	2.07	1.10	54	3.13	.78	1.06**
Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.).	2.19	1.08	54	2.76	.84	.57**
Animation (Cinema 4D, After Effects, Stop Motion).	1.57	.82	54	2.31	1.01	.74**

*p < .10 **p < .05

Educational Attitudes

As shown in Table 4, participants self-reported significant improvements on all three educational attitude scales including academic self-perceptions, $t(52) = 2.09, p < .05$; goal valuation, $t(53) = 2.43, p < .05$; and motivation/self-regulation, $t(53) = 2.06, p < .05$, at the end of the summer program.

Table 4
Summer 2014 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	5.57	1.02	53	5.77	.93	.19**
Goal Valuation	6.38	.71	54	6.57	.63	.19**
Motivation/Self-Regulation	5.45	1.08	54	5.68	1.03	.24**

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

Positive Youth Development

As shown in Table 5, at the end of the summer, participants self-reported significant improvement on four (57%) of the positive youth development measures including life skills, $t(53) = 2.91, p < .05$; positive core values, $t(53) = 3.17, p < .05$; social competency/personal responsibility, $t(53) = 2.66, p < .05$, and community involvement, $t(53) = 3.36, p < .05$, at the end of the summer program. Participants also reported some improvement in cultural competence, $t(53) = 2.00, p < .10$, at the end of the summer program.

Table 5
 Summer 2014 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	3.74	.30	54	3.82	.31	.08*
Life Skills	3.34	.41	54	3.49	.43	.15**
Positive Core Values	3.48	.36	54	3.64	.34	.15**
Sense of Self	3.37	.40	53	3.46	.39	.10
Social Competency/Personal Responsibility	3.47	.40	54	3.60	.38	.13**
Community Involvement	2.86	.64	54	3.07	.59	.22**
Caring Adult Relationships	3.28	.74	54	3.37	.77	.09

*p < .10 **p < .05

Conclusions

Overall, the results of the 2014 Long Beach High School Youth Institute Summer Program were very positive since significant improvements were found in all of the domains hypothesized to be influenced by program participation. Although the absence of a control group makes it difficult 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 significantly higher on all nine (100%) of the leadership skills measured. 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 21st century (The Partnership for 21st Century Learning Skills, 2003).

Similarly, these youth self-reported somewhat (Internet use) or significantly (e-mail, web design, word processing, data processing, digital video filming, digital music creation, presentation software, digital video editing, graphic design, digital photography, animation) better technology skills on 92% of skills measured here. The greatest gains were found in the areas specifically targeted by the program, for example, since the evaluation was done on a summer program, it is not surprising that the use of computer to complete school assignments did not change. 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). It is worth noting that the summer curriculum and projects were able to further enhance these skills even among youth who had participated in similar activities during the middle school program. Thus, it appears that the YI curriculum has evolved to create a ladder of extended learning and skill development that continues to build skills over time.

Another anticipated outcome of the YI is improved educational attitudes, although this area has, in the past, been found to be more difficult for the summer program to influence. Thus, it is particularly encouraging that, for the second straight year, participants reported significant improvements in academic self-perceptions (confidence in their skills), goal valuation (perceived value of education), and motivation/self-regulation. This is important 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). Similarly, both goal valuation and motivation/self-regulation have been found to be related to higher levels of achievement among high school students (Suldo, Shaffer & Shaunessy, 2008; McCoach &

Siegle, 2003). Thus, these improvements may help participants to achieve better academically in the coming years. While these gains are positive, it will be important for YI staff to 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). The findings here indicate that the program was somewhat successful in promoting positive youth development as participants evidenced some (cultural competence) or significant (life skills, positive core values, social competency/personal responsibility community involvement) gains in 71% of the positive youth development areas. It appears that program involvement helped participants to develop protective factors that should reduce the likelihood of future involvement in problem behaviors. The increased sense of community involvement found here, as well as some of the other changes, are quite positive 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). During the year-round program, staff should continue to work on establishing positive adult relationships since these types of 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).

In conclusion, the program appears to have increased the social and interpersonal competence, technology skills, educational attitudes, and positive youth development 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). Staff are to be congratulated for their efforts which appeared to help youth develop and enhance skills that are critical for positive development, academic achievement, and career success.

References

- Baron, P. E. (2002). Meeting the need for scientists, engineers, and an educated citizenry in a technological society. Princeton, NJ: Policy Information Center Report, Educational Testing Service. Retrieved from: <http://ets.org/research/pic/meetingneed.pdf>
- Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, 34(2), 164 – 181.
- DuBois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine, J. C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest*, 12, 57-91.
- Erkman, F., Caner, A., Sart, H., Borkan, B., & Sahan, K. (2010). Influence of perceived teacher acceptance, self-concept, and school attitude on the academic achievement of school-age children in Turkey. *Cross-Cultural Research*, 44, 295-309.
- Hall, G., Yohalem, N., Tolman, J., & Wilson, A. (2003). *How afterschool programs can most effectively promote positive youth development as a support to academic achievement: A report commissioned by the Boston after-school for all partnership*. Washington, DC: National Institute on Out-of-School Time.
- Karnes, F. A. & Chauvin, J. C. (2000). *Leadership development program manual*. Scottsdale AZ: Gifted Psychology Press, Inc.

- Lippman, L., Atienza, A., Rivers, A., & Keith, J. (2008). *A developmental perspective on college & workplace readiness*. Child Trends. Retrieved from:
http://www.childtrends.org/Files/Child_Trends-2008_09_15_FR_ReadinessReport.pdf
- McCoach, D. B., & Siegle, D. (2003). The school attitude assessment survey-revised: A new instrument to identify academically able students who underachieve. *Educational and Psychological Measurement, 63*, 414-429.
- Meltzer, I. J., Fitzgibbon, J. J., Leahy, P. J., & Petsko, K. E. (2006). A youth development program: Lasting impact. *Clinical Pediatrics, 45*, 655-660.
- Paxton, R. J., Valois, R. F., Huebner, E. S., & Drane, J. W. (2006). Opportunity for adult bonding/meaningful neighborhood roles and life-satisfaction among USA middle school students. *Social Indicators Research, 79*, 291-312.
- Pershey, M. G. (2010). A comparison of African American students' self-perceptions of school competence with their performance on state-mandated achievement tests and normed tests of oral and written language and reading. *Preventing School Failure, 55*, 53-62.
- Roffman, J. G., Pagano, M. E., & Hirsch, B. J. (2001). Youth functioning and experiences in inner-city after-school programs among age, gender, and race groups. *Journal of Child and Family Studies, 10*, 85-100.
- Serido, J., Borden, L. M., & Perkins, D. F. (2011). Moving beyond youth violence. *Youth & Society, 43*, 44-63.
- Suldo, S. M., Shaffer, E. J., Shaunessy, E. (2008). An independent investigation of the validity of the school attitude assessment survey-revised. *Journal of Psychoeducational Assessment, 26*, 69-82.
- The Colorado Trust. *The after-school initiative's toolkit for evaluating positive youth development*. Denver, CO: The Colorado Trust, 2004.

The Partnership for 21st Century Learning Skills. *Learning for the 21st century: A report and mile guide for 21st century skills*. Washington DC: Partnerships for 21st Century Skills, 2003. Retrieved from: http://www.21stcenturyskills.org/downloads/P21_Report.pdf

Warschauer, M., & Matuchniak, T. (2010). New technology and digital worlds: Analyzing evidence of equity in access, use, and outcomes. *Review of Research in Education*, 34, 179-225.