

**End of Year One Evaluation of Leadership,
Technology, Educational Attitude, Positive
Youth Development Outcomes for Long
Beach YMCA High School Youth Institute
Alumni Summer 2008**

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Introduction

The YMCA of Greater Long Beach Youth Institute is a 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 programs throughout their high school and, potentially, college years. Involvement opportunities include, but are not limited to, digital art labs, academic advising/homework assistance, personal/home advising, community service, equipment check-out, field trips, paid technology and mentoring assignments, community leadership positions and social work support.

Three of the goals of the program are: (a) To improve the technology knowledge and skills of participants by providing intensive, year-round enrichment experiences that fully integrate and emphasize state-of-the-art technology, (b) To use youth development principles and project-based learning to develop leadership and decision-making skills and enhance positive youth development, and (c) to improve youth attitudes toward education and learning. This report investigates 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 2008 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 (Karnes & Chauvin, 2000), a standardized leadership measure. The inventory

measures nine areas of leadership skill. The instrument has been shown to have strong reliability and validity. The second instrument, The YMCA Youth Institute Survey is an instrument measuring positive youth development (cultural competency, life skills, positive core values, sense of self, social competency-responsible choices, community involvement, and positive adult relationships), technology use, technology competence, and educational attitudes. The positive youth development measures were created by the researchers specifically to evaluate this project based on The Toolkit for Evaluating Positive Youth Development (The Colorado Trust, 2004). This is the first year in which the effects of program participation on positive youth development were explored. The technology use and competence measure was originally created by Dr. Jo Ann Regan to evaluate this project, however, the measure was revised this year to reflect the current technology curriculum at the YI. The three educational attitude measures (self-perceptions, goal valuation, and motivation/self-regulation) came from The School Attitude Assessment Survey – Revised Edition (McCoach & Siegle, 2003). This instrument has been shown to have strong reliability and validity.

Sample

Fifty-five youth completed the YMCA Summer Youth Institute in 2008. Of these, 35 (64%) completed beginning of summer and end of year one surveys and are included in these analyses. Attrition analyses were conducted to determine if the participants included in the sample differed from those who did not have surveys at the needed time points. There were no significant gender, grade or ethnic differences between those who were and were not included in these analyses. Fourteen (40%) of the students in the sample had attended the Middle School Youth Institute Program before entering the High School Youth Institute Program.

As shown in Table 1, the participants who were included in this study ranged from 13 to 17 years of age at the start of the program. The majority were 13 to 15 (88%) at the start of the program. Fifty-one percent of the participants were male. Latinos (54%) were the largest ethnic

group, followed by African-Americans and Asian-American/Pacific Islanders (17% each), European Americans and Bi-racial/Mixed ethnicities (6% each). Three-fourths (75%) were in 8th or 9th grade at program entry.

Table 1
Sample Description of 2008 Youth Institute Alumni
(N=35)

	%	N
❖ Age at Start of Program		
13	31%	11
14	34%	12
15	23%	8
16	9%	3
17	3%	1
❖ Gender		
Male	51%	18
Female	49%	17
❖ Ethnicity		
Latino	54%	19
African-American	17%	6
Asian American/Pacific Islander	17%	6
European-American	6%	2
Bi/Multicultural	6%	2
❖ Grade		
8 th	49%	17
9 th	26%	9
10 th	14%	5
11 th	8%	3
12 th	3%	1

Analyses

Measures

Leadership Skills

Nine types of leadership skills were measured including fundamentals of leadership ($\alpha = .87$ to $.93$), written communication ($\alpha = .89$ to $.92$), speech communication ($\alpha = .88$ to $.93$), character-building ($\alpha = .90$ to $.94$), decision-making ($\alpha = .78$ to $.89$), group dynamics ($\alpha = .87$ to $.94$), problem-solving ($\alpha = .76$ to $.89$), personal skills ($\alpha = .90$ to $.94$), and planning skills ($\alpha = .92$ 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 in skills were investigated using paired t-tests.

Educational Attitude Scales

Three educational attitudes were measured including academic self-perceptions ($\alpha = .70$ to $.92$), goal valuation ($\alpha = .87$ to $.92$), and motivation/self-regulation ($\alpha = .85$ to $.92$). The academic self-perception scale consisted of 6 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 6 items that measured how much students valued a task. 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 t-tests.

Positive Youth Development Scales

The cultural competence scale ($\alpha = .71$ to $.81$) consisted of 10 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 pride for my own culture, race or ethnic group.” The life skills scale ($\alpha = .74$ to $.80$) 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 value scale ($\alpha = .74$ to $.76$) consisted of five 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 ($\alpha = .63$ to $.74$) consisted of 5 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 social competency/responsible choices scale ($\alpha = .64$ to $.74$) consisted of 6 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 ($\alpha = .73$ to $.82$) consisted of 5 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 ($\alpha = .86$ to $.96$) consisted of 4 items measuring 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 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 Class of 2008 in the YI Alumni Program, during the year immediately following their graduation. Participants primarily used the digital arts lab.

Table 2
Extent and Type of Involvement in Program Activities
2008 Youth Institute Alumni
August, 2008 – May, 2009

Class of 2008				
Activity	N	Mean	SD	Range
Digital Arts Lab	35	66	51	2 - 189
Personal/Home Advising	35	17	13	1 - 47
Academic Advising	31	13	12	1 - 55
Community Service Projects	30	6	5	1 - 19
Fall Meeting	22	1	0	1
Holiday Party	19	1	0	1
Equipment Checkout	17	3	2	1 - 8
Total	34	103	76	3 - 294

Changes in Leadership Skills

As shown in Table 3, study participants reported significant skill level improvements in fundamentals of leadership, $t(33) = 4.65, p < .05$, written communication, $t(33) = 4.00, p < .05$, speech communication, $t(33) = 4.04, p < .05$, character building, $t(33) = 3.74, p < .05$, group dynamics, $t(33) = 4.13, p < .05$, decision-making, $t(33) = 3.37, p < .05$, problem-solving, $t(33) = 2.75, p < .05$, personal, $t(33) = 2.56, p < .05$, and planning skills, $t(33) = 2.55, p < .05$, at the end of their first year in the High School YI program.

Table 3
Participant Report of Changes in Leadership Skills
2008 Youth Institute Alumni

Scale	Beginning of Program			End of Year One		
	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.19	.58	34	2.59	.40	.39**
Written Communication	1.99	.60	34	2.38	.48	.39**
Speech Communication	2.01	.63	34	2.38	.45	.37**
Character Building	2.42	.41	34	2.66	.29	.24**
Group Dynamics	2.26	.46	34	2.56	.32	.25**
Decision-Making	2.31	.49	34	2.57	.32	.30**
Problem-Solving	2.14	.60	34	2.44	.41	.30**
Personal	2.40	.45	34	2.58	.31	.18**
Planning	2.23	.47	34	2.46	.39	.23**

** $p < .05$

Changes in Technology Use

As shown in Table 4, study participants reported significantly more use of the computer at home and at school, $t(33) = 2.80, p < .05$, e-mail usage, $t(33) = 4.34, p < .05$, Internet access (visit websites), $t(33) = 4.40, p < .05$, web page creation, $t(33) = 4.87, p < .05$, graphic design codes, $t(33) = 2.80, p < .05$, word processing software, $t(33) = 2.07, p < .05$, data processing software, $t(33) = 4.27, p < .05$, use of computer to complete school assignments,

$t(33) = 2.46, p < .05$, use of presentation software, $t(33) = 3.80, p < .05$, and use of digital editing software, $t(33) = 2.96, p < .05$.

Table 4
Participant Report of Changes in Technology Use
2008 Youth Institute Alumni

	Beginning of Program			End of Year One		
	Mean	SD	N	Mean	SD	Difference
Use the computer at home/school	3.24	.85	34	3.65	.60	.41**
Send e-mail	2.65	1.07	34	3.44	.75	.79**
Access the Internet	3.29	.76	34	3.79	.41	.50**
Create web pages	1.24	.50	34	1.88	.77	.65**
Create graphic designs with computer software applications	1.79	.95	34	2.24	.85	.44**
Use word processing software applications to write text	2.88	.88	34	3.21	.73	.32**
Use data processing software for databases or spreadsheets	1.63	.79	32	2.53	1.02	.91**
Use digital video equipment	2.44	.99	34	2.76	.92	.32
Participate in Internet chat rooms/listservs	2.35	1.12	34	2.71	1.03	.35
Use the computer to complete school assignments	3.09	.80	33	3.42	.61	.33**
Use digital music software	2.03	1.01	33	2.45	1.03	.42
Use presentation software	1.97	.85	33	2.61	.79	.64**
Use digital editing software	1.76	.97	33	2.33	.85	.58**

**p<.05

Changes in Technology Competence

As shown in Table 5, study participants reported significant improvements in their competencies with using a variety of media and technology resources to create presentations for audiences inside and outside the classroom, $t(33) = 5.22, p < .05$, creating multimedia products with support from staff and student partners, $t(33) = 3.86, p < .05$, use of technology tools to locate, evaluate and collect information, $t(33) = 3.29, p < .05$, use of technology tools to process data and report results, $t(33) = 4.19, p < .05$, use of technology tools for managing and communicating personal/professional data, $t(33) = 6.97, p < .05$, and use of a variety of media

and formats to communicate information effectively to multiple audiences, $t(33) = 6.04, p < .05$, at the end of year one.

Table 5
Participant Report of Changes in Technology Competencies
2008 Youth Institute Alumni

	Beginning of Program			End of Year One		Difference
	Mean	SD	N	Mean	SD	
Use input and output devices to successfully operate computers, VCR's, audiotapes, etc.	3.03	1.00	34	3.56	.56	.53**
Use a variety of media and technology resources (software, graphic designs, etc.) to create presentations.	2.71	.97	34	3.47	.61	.76**
Work collaboratively with others to use technology to compile, synthesize, produce, and disseminate information.	3.06	.85	34	3.29	.68	.23
Create multimedia products (digital video, movies, etc.) with support from staff or student partners.	2.62	1.07	34	3.35	.73	.73**
Use technology tools to locate, evaluate, and collect information from a variety of sources.	2.71	.97	34	3.26	.71	.56**
Use technology tools to process data and report results.	2.38	.92	34	3.12	.84	.73**
Use technology tools for managing and communicating personal/professional information.	2.00	.85	34	3.06	.85	1.06**
Use a variety of media and formats to communicate information and ideas effectively.	2.18	.90	34	3.15	.78	.97**

** $p < .05$

Changes in Educational Attitudes

As shown in Table 6, study participants reported somewhat higher academic motivation, $t(33) = 1.87, p < .10$, at the end of year one.

Table 6
Participant Report of Changes in Educational Attitudes
2008 Youth Institute Alumni

Scale	Beginning of Program			End of Year One		Difference
	Mean	SD	N	Mean	SD	
Academic Self-Perceptions	5.62	.84	34	5.84	1.07	.22
Goal Valuation	6.51	.80	34	6.54	.59	.03
Motivation/Self-Regulation	5.58	.83	34	5.90	.66	.31*

**p<.05

*p<.10

Positive Youth Development

As shown in Table 7, teens who participated in the 2008 YMCA Youth Institute Summer Program self-reported significant improvement in two of the positive youth development areas at the end of year one. Positive, significant improvements were found in life skills, $t(33) = 2.16$, $p < .05$, and in caring adult relationships, $t(33) = 2.40$, $p < .05$.

Table 7
Participant Report of Changes in Positive Youth Development Scales
2008 Youth Institute Alumni

Development Scale	Beginning of Program			End of Year One		Difference
	Mean	SD	N	Mean	SD	
Cultural Competence	3.52	.33	34	3.53	.39	.01
Life Skills	3.18	.37	34	3.32	.38	.13**
Positive Core Values	3.40	.39	34	3.41	.44	.01
Sense of Self	3.33	.47	34	3.31	.54	.02
Social Competency/Personal Responsibility	3.45	.42	34	3.45	.40	.01
Community Involvement	2.95	.59	34	3.01	.52	.06
Caring Adult Relationships	3.09	.90	34	3.48	.59	.38**

**p<.05

Conclusions

The 2008 Youth Institute Alumni group continued to self-report numerous significant improvements in the areas of leadership skills, technology use, and technology competence at the end of one year of involvement in the program. In addition, there were a couple of significant improvements in the area of positive youth development, and these alumni reported some improvement in their academic motivation. Thus, many of the significant improvements these youth reported at the end of the summer program, when they were totally immersed in the Youth Institute, were maintained nine months later, after they had returned to school and, “the real world.”

These participants appeared to benefit substantially from the program in terms of leadership skills as they reported significant improvement in every skill area at the end of one year of program participation. This represents a substantial improvement in leadership skill development over the last four years, in particular over last year, since there was no self-reported improvement in this area among 2007 alumni. It appears that the changes that were made to the program were effective in helping these youth to retain their end of summer leadership improvements, and, in some cases, improve upon them. These leadership gains should prove beneficial to these youth as they attend school or participate in work or other community activities.

In terms of technology use, 2008 alumni reported significant improvements on ten (77%) of the 13 areas measured. In part, the lack of significant differences on the use of digital video equipment and digital music software may have been influenced by the wide variation in the extent to which alumni currently use this technology, since substantial gains were still reported in each area. Some alumni may have continued to use one or both of these technologies while others did not, which may reflect areas of preference or differential opportunities to participate in

activities related to these areas. YI 2008 alumni reported significant improvement on all but one of the technology competency areas as well. The end-of-year technology use improvements reported here are much greater than those found in the last two years and the competency changes represent a substantial improvement in those found among 2007 alumni. Thus, it appears that the Youth Institute did greatly enhance the technology skills of participants as hypothesized.

In terms of educational attitudes, 2008 alumni evidenced somewhat higher motivation/self-regulation at the end of one-year. This finding too, is an improvement over prior years when no changes were found or youth were seen to actually decline on some of the educational attitudes scales. Hopefully, over time, this increased motivation may help these youth to improve their grades or increase the likelihood that they will go on to higher education. Given the smaller rates of change in this area, YI staff should continue to consistently provide academic advising and might want to consider a structured way to ensure all alumni benefit from this service.

Last summer was the first time that the YI evaluation investigated program effects on positive youth development so there is no way to compare these outcomes. At the end of one year, life skills and caring adult relationships were the only two positive youth development components that were significantly higher at the end of the year. While these results may be less than anticipated, it is noteworthy that life skills appeared to be positively affected, given the focus of the program on successful transition to adulthood. In addition, given evidence that suggests the importance of positive adults to school success among high school students (Hawkins, Catalano, & Miller, 1992), it is encouraging to see that these alumni did report an increase in the amount of caring adults in their lives. Efforts to enhance and engage youth in community activities and program leadership may help youth improvements in these other areas

in the future. It will be interesting to see whether positive youth development findings are consistent across program years.

While it is important to explore whether program effects are maintained over a period of time and persist even in the context of participants' "typical" school and social lives, it is worth noting that the end of the school year does not mark the end of participation in the Youth Institute Alumni program, and thus, may not accurately reflect the potential of the program to positively influence the skills and attitudes of these youth. However, the findings here, overall, provide strong support for the notion that Youth Institute involvement can positively influence leadership and technology skills and some indication that they can also contribute to positive youth development and possibly lead to better educational outcomes. Thus, it appears that in many ways the YI program is meeting its core goals.

References

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, *112*(1), 64-105.