

**Evaluation of the Effects of the 2010 Long  
Beach YMCA High School Youth Institute  
Summer Program on Leadership Skills,  
Technology Skills, Educational Attitudes and  
Positive Youth Development**

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**September, 2010**

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## Methods

### *Data Collection*

Self-report survey data was collected from all entering 2010 YMCA Youth Institute Summer Program participants prior to the start and on the last day of the program. Two surveys were completed. The first was the Leadership Skills Inventory (Karnes & Chauvin, 2000), a standardized leadership instrument which measures nine areas of leadership skills. The instrument has been shown to have strong reliability and validity. The second instrument, The YMCA Youth Institute Survey is a combined 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). The technology use and competence measure was created by Dr. Jo Ann Regan to evaluate this project, however, the measure has been revised periodically to reflect the current YI technology curriculum. 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*

Twenty-two (92%) of the 24 YMCA High School Youth Institute (HSYI) participants who completed the 2010 summer program had both pre- and post-test data and were included in these analyses. As shown in Table 1, participants ranged from 13 to 16 years of age. Half (50%) were age 14 at the start of the program. Sixty-eight percent were male. Latinos (36%) were the largest ethnic group, followed by Asian-American/Pacific Islanders and African-Americans (27% each). Three-quarters (77%) of participants were in 8th or 9th grade when they started the

HSYI summer program. Three (14%) youth had participated in the Middle School Youth Institute before entering the high school program.

Table 1  
Description of Summer 2010 High School Youth Institute Participants  
(N = 22)

	%	N
❖ Age at Start of Program		
13	18%	4
14	50%	11
15	18%	4
16	14%	3
❖ Gender		
Male	68%	15
Female	32%	7
❖ Ethnicity		
Latino	36%	8
Asian American/Pacific Islander	27%	6
African-American	27%	6
Bi/Multicultural	5%	1
European-American	5%	1
❖ Grade		
8 <sup>th</sup>	36%	8
9 <sup>th</sup>	41%	9
10 <sup>th</sup>	18%	4
11 <sup>th</sup>	5%	1

### Analysis

#### *Measures*

##### *Leadership Skills*

Nine types of leadership skills were measured including fundamentals of leadership

( $\alpha = .83$  to  $.87$ ), written communication ( $\alpha = .61$  to  $.80$ ), speech communication ( $\alpha = .85$  to  $.87$ ), character-building ( $\alpha = .88$  to  $.89$ ), decision-making ( $\alpha = .83$  to  $.88$ ), group dynamics ( $\alpha = .92$  to  $.95$ ), problem-solving ( $\alpha = .85$  to  $.89$ ), personal skills ( $\alpha = .92$ ), and planning skills ( $\alpha = .92$  to  $.93$ ). 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 Attitudes***

Three educational attitudes were measured including academic self-perceptions ( $\alpha = .86$  to  $.87$ ), goal valuation ( $\alpha = .78$  to  $.91$ ), and motivation/self-regulation ( $\alpha = .95$ ). 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***

The cultural competence scale ( $\alpha = .70$  to  $.72$ ) consisted of 11 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 ( $\alpha = .71$  to  $.80$ ) consisted of 11 items measuring proficiencies that

allow youth to transition into and achieve successful adulthood. Questions included “I am making friends” and “I make good decisions.”

The positive core value scale ( $\alpha = .62$  to  $.73$ ) consisted of seven 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 ( $\alpha = .60$  to  $.77$ ) 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 ( $\alpha = .66$  to  $.75$ ) 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 ( $\alpha = .65$  to  $.72$ ) 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 ( $\alpha = .94$  to  $.96$ ) consisted of 4 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 in my life who cares about my feelings.”

## **Results**

### ***Leadership Skills***

As shown in Table 2, these HSYI self-reported significant improvements in three of the nine areas of leadership; written communication skills,  $t(21) = 4.21, p < .05$ , speech

communication skills,  $t(21) = 2.37, p < .05$ , and planning skills,  $t(21) = 2.54, p < .05$ . They also self-reported somewhat higher skills for fundamentals of leadership skills,  $t(21) = 1.83, p < .10$ , group dynamic skills,  $t(21) = 1.77, p < .10$ , and problem-solving skills,  $t(21) = 2.03, p < .05$ , at the end of the summer program. The greatest gains were found in written communication, speech communication and problem-solving.

Table 2  
Summer 2010 YI Participant Report of Changes in Leadership Skills

Skills	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.14	.55	22	2.37	.52	.24*
Written Communication	1.76	.55	22	2.39	.58	.64**
Speech Communication	1.91	.52	22	2.23	.44	.31**
Character Building	2.42	.42	21	2.48	.38	.06
Decision-Making	2.44	.40	21	2.48	.45	.04
Group Dynamics	2.16	.62	22	2.38	.43	.22*
Problem-Solving	2.14	.61	22	2.41	.50	.27*
Personal	2.37	.44	22	2.42	.41	.05
Planning	2.23	.51	22	2.45	.43	.21**

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

### *Technology Use*

Technology use was measured by self-report of the frequency with which participants used 13 types of technology. Participants rated themselves on a scale ranging from 1 "Never" to 4 "Daily." Higher scores indicated greater frequency of use. As shown in Table 3, study participants reported significantly more frequent use of creating web pages,  $t(19) = 3.68, p < .05$ , creating graphic designs with computer software,  $t(21) = 3.57, p < .05$ , using data processing software applications,  $t(21) = 3.64, p < .05$ , using digital video equipment,  $t(21) = 2.64, p < .05$ , participating in Internet chat rooms/discussions boards  $t(21) = 2.27, p < .05$ , using

digital music software  $t(20) = 5.06, p < .05$ , using presentation software,  $t(20) = 3.51, p < .05$ , and using digital editing software,  $t(20) = 3.29, p < .05$ , at the end of the summer program. The greatest gains were found in the use of digital music software, creating graphic designs, using digital editing software and using data processing software applications.

Table 3  
Summer 2010 YI Participant Report of Changes in Technology Use

Technology Use	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
I currently use the computer at home and school.	3.50	.67	22	3.23	.97	-.27
I send email.	2.95	1.17	22	2.86	1.08	-.09
I access the Internet (websites, surf the web).	3.55	.74	22	3.59	.59	.04
I create web pages.	1.25	.72	20	2.00	.97	.75**
I create graphic designs with computer software and code applications (HTML, Dreamweaver, etc.).	1.64	1.00	22	2.59	.96	.95**
I use word processing software applications to write text.	3.14	.83	22	3.00	.76	-.14
I use data processing software applications for databases or spreadsheets.	1.68	.94	22	2.50	.86	.82**
I use digital video equipment (cameras/video).	2.05	1.09	22	2.73	.88	.68**
I participate in Internet chat rooms/discussion boards/listservs.	2.59	1.26	22	3.18	1.05	.59**
I use the computer to complete school assignments.	2.81	.81	21	2.86	.79	.05
I use digital music software (GarageBand, Reason, Logic Pro).	1.67	.97	21	2.86	1.01	1.19**
I use presentation software (Powerpoint, Keynote, Inspiration).	2.14	1.01	21	2.71	.72	.57**
I use digital editing software (iMovie, Final Cut).	1.52	.98	21	2.38	.97	.86**

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

### *Technology Competence*

Technology competence was measured by participants' self-report of knowledge in eight different areas. Participants rated themselves on a scale ranging from 1 "No knowledge" to 4 "Excellent knowledge." As shown in Table 4, these program participants reported significant improvement in seven of the eight competence areas including using a variety of media and technology resources,  $t(20) = 4.48, p < .05$ , working cooperatively with others to use technology to produce and share information,  $t(20) = 2.75, p < .05$ , creating multimedia products,  $t(20) = 6.02, p < .05$ , using technology tools to locate, evaluate, and collect information from a variety of sources,  $t(20) = 4.38, p < .05$ , using technology tools to process data and report results,  $t(19) = 3.44, p < .05$ , using technology tools for managing and communicating personal/professional information,  $t(20) = 2.43, p < .05$ , and using a variety of media and formats to communicate information and ideas effectively to multiple audiences,  $t(20) = 3.55, p < .05$ . Participants also reported somewhat increased competence of using input devices,  $t(20) = 1.78, p < .05$ , at the end of the summer program. The greatest gains were found in creating multimedia products, using a variety of media and formats to communicate information to audiences, using technology tools to locate, evaluate and collect information, using a variety of media and technology resources to create presentations, and using technology tools to process data and report results.

Table 4

## Summer 2010 YI Participant Report of Changes in Technology Competencies

Technology Competence	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
I can use input devices (mouse, keyboard, remote control) and output devices (monitor, printer) to successfully operate computers, VCRs, audiotapes, etc.).	3.14	.85	21	3.48	.51	.33*
I can use a variety of media and technology resources (word processing, presentation, graphic design software) to create presentations both inside and outside of the classroom.	2.48	.87	21	3.43	.51	.95**
I can work cooperatively with others to use technology to produce and share information.	2.81	.87	21	3.48	.68	.67**
I can create multimedia products (digital videos, movies, magazines, newsletters, invitations) with support from staff or student partners.	2.10	.94	21	3.57	.51	1.48**
I can use technology tools to locate, evaluate, and collect information from a variety of sources.	2.24	.94	21	3.38	.59	1.14**
I can use technology tools to process data and report results.	2.05	1.15	20	3.00	.56	.95**
I can use technology tools for managing and communicating personal/professional information (finances, schedules, addresses, correspondence).	2.43	1.12	21	3.00	.63	.57**
I can use a variety of media and formats to communicate information and ideas effectively to multiple audiences.	2.10	1.04	21	3.29	1.01	1.19**

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

### *Educational Attitudes*

As shown in Table 5, these teens reported significant improvement on two of the three educational attitude measures including academic self-perceptions,  $t(21) = 2.94, p < .05$ , and motivation/self-regulation,  $t(21) = 3.94, p < .05$ .

Table 5  
 Summer 2010 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	5.13	1.02	22	5.57	.89	.44**
Goal Valuation	6.05	.88	22	6.25	.60	.20
Motivation/Self-Regulation	4.69	1.19	22	5.24	1.04	.55**

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

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

As shown in Table 6, participants self-reported significant improvement in four (57%) of the seven positive youth development areas at the end of the summer program. Positive, significant differences were found in cultural competence,  $t(21) = 2.92, p < .05$ , sense of self,  $t(21) = 2.57, p < .05$ , social competency/personal responsibility,  $t(21) = 2.43, p < .05$ , and community involvement,  $t(20) = 2.53, p < .05$ . Youth also reported somewhat higher caring adult relationships,  $t(21) = 1.83, p < .10$ , at the end of the summer program.

Table 6

## Summer 2010 YI Participant Report of Changes in Positive Youth Development Scales

Development Scale	Before Summer			End of Summer		Difference
	Mean	SD	N	Mean	SD	
Cultural Competence	3.37	.28	22	3.55	.37	.18**
Life Skills	3.11	.30	22	3.20	.33	.09
Positive Core Values	3.23	.43	22	3.15	.39	-.08
Sense of Self	3.00	.60	22	3.23	.37	.23**
Social Competency/Personal Responsibility	3.22	.42	22	3.42	.34	.20**
Community Involvement	2.67	.52	21	2.96	.50	.30**
Caring Adult Relationships	3.05	.90	22	3.35	.63	.31*

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

### Conclusions

Overall, the evaluation results of the 2010 Youth Institute Summer Program were quite positive. HYSI summer program participation, as envisioned, appears to have positively influenced measures in all four areas that were explored, particularly technology competence and educational aspirations. Participants reported significant improvement in three (written and speech communication, planning) of the nine leadership skill areas and showed improved scores approaching significance in fundamentals of leadership, group dynamics and problem-solving. Although the changes in leadership evidenced here were less than in the last two years, they do provide some evidence to suggest the summer wilderness retreat and the project-based learning experiences helped participants to develop a wide range of skills that should enable them to be leaders in a variety of settings. These skills should be particularly useful both in school and as they enter the work force as many of the items measured by this instrument have been identified

as critical 21<sup>st</sup> century work place skills (The Partnership for 21<sup>st</sup> Century Learning Skills, 2003). The perceived improvement in written and speech communication skills as well as in the planning area should also prove helpful as they continue their school careers. It may be useful, as these participants enter the alumni program, to provide additional training related to leadership development.

These HSYI summer participants also self-reported some or significantly more technology use on seven (54%) of the 13 types of use measured and significant improvement in all but one of the eight areas of technology competence. It is even more positive that these youth reported these significant technology competence gains in all areas except in the use of input and output devices which still approached significance. Thus, it appears that participation in the HSYI, as hypothesized, exposed these youth to a variety of technology applications and helped them to gain a broad array of high-end technology skills that should prove valuable to them in their future academic and career endeavors. These findings indicate that program participation resulted in them feeling more confident about their ability to use numerous technology tools to collect and analyze information, to manage tasks, to communicate with others and to create a number of products. The changes in technology usage, not unexpectedly, primarily reflected the major areas of technology emphasized in the summer program. For example, it is not unexpected that using the computer to complete school assignments remained unchanged since these youth were not involved in school. It is possible that offering HSYI workshops focusing on some of the other areas (word processing, Internet research) during the year-round program might also help to encourage further use in these areas.

Another anticipated outcome of the HSYI is improved educational attitudes. These participants self-reported significant improvements in both academic self-perceptions and motivation/self-regulation. These findings represent an improvement in the program's impact in

educational attitudes over the last two years. It appears that these youth, after participating in the program, had greater confidence in their ability to learn and were more motivated to succeed academically. It will be interesting to see if these attitudes will carry over into improved academic achievement during the actual school year. It is hoped that the higher education initiative, a part of the HSYI year-round program, will continue to build upon the positive educational attitudes developed during the summer program.

The HSYI is designed to incorporate positive youth development strategies into all aspects of the program, since participation in youth development programs have 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). There were strong indications that involvement in the summer HSYI program had a positive influence on a number of aspects of youth development. For example, there were significant improvements in cultural competence, sense of self, social competency/personal responsibility, and community involvement as well as some improvement in caring adult relationships. These findings are an improvement over the results from last year. These findings suggest that program participation helped to develop protective factors that should reduce the likelihood of these participants involvement in problem behaviors. Staff may want to continue to focus on the areas of life skills and positive core values during the year-round program

In conclusion, the results of this evaluation strongly suggest that the HSYI summer program positively influenced the youth who participated in the 2010 summer program in all of the key areas hypothesized by the program model; leadership, technology, educational attitudes and positive youth development. It may prove useful during the coming academic year for staff to focus on the development of leadership skills as well as on supporting positive educational attitudes and positive youth development.

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