Evaluation of the Effects of the 2007 Long Beach YMCA High School Youth Institute Intensive Summer Program on Leadership, Technology Skills and School Attitudes

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September, 2007

Methods

Data Collection

Self-report survey data was collected from all entering 2007 YMCA Youth Institute Intensive Summer Program participants on their first and last day of the program. Three 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 Long Beach YMCA Technology Skills Inventory, was created by Dr. Jo Ann Regan formerly of the California State University, Long Beach, Department of Social Work, specifically to evaluate this project. The Technology Inventory consists of two sections, one on frequency of technology use and one on technology competency. The third survey was the School Attitude Assessment Survey – Revised Edition (McCoach & Siegle, 2003). This survey measures five areas of school attitudes. This instrument has been shown to have strong reliability and validity.

Sample

As shown in Table 1, 2007 program participants ranged from 13 to 17 years of age. The majority were in the 13 to 14 year age range (79%). Fifty-nine percent were male. Latinos (41%) were the largest ethnic group, followed by Asian-American/Pacific Islanders (26%), African-Americans (21%), Caucasians (9%), and Bi-racial/Mixed ethnicities (3%). The vast majority (88%) were 8th or 9th graders when they began the high school Youth Institute program.

Table 1
Description of Summer 2007 High School Youth Institute Participants
(N = 34)

	%	N
♦ Age at Start of Program		
13	35%	12
14	44%	15
15	12%	4
16	6%	2
17	3%	1
♦ Gender		
Male	59%	20
Female	41%	14
♦ Ethnicity		
Latino	41%	16
Asian American/Pacific Islander	26%	9
African-American	21%	6
Caucasian	9%	1
Bi/Multicultural	3%	4
♦ Grade		
8^{th}	59%	20
9^{th}	29%	10
10^{th}	9%	3
11^{th}	3%	1

Analysis

Leadership Skills

Nine types of leadership skills were measured including fundamentals of leadership (α = .79 to .85), written communication (α = .80 to .81), speech communication (α = .81 to .84), character-building (α = .81 to .90), decision-making (α = .84 to .87), group dynamics (α = .90), problem-solving (α = .77 to .82), personal skills (α = .87 to .92), and planning skills (α = .90 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.

School Attitude Scales

Three school attitudes were measured including academic self-perceptions (α = .87 to .92), goal valuation (α = .87 to .96), and motivation/self-regulation (α = .95 to .97). The academic self-perception scale measured the perception/confidence that students had in their own skills. One question was "I feel that I can learn new ideas quickly." The goal valuation scale measured how much students valued a task. One question was "It is important to me to get good grades." The motivation/self-regulation scale measured how self-motivated students were and how good they were at self-monitoring. One question was "I use a variety of strategies to learn new material in high school."

Results

As shown in Table 2, teens who participated in the 2007 Intensive Summer Program self-reported no significant improvements on any of the nine areas of leadership.

Table 2

Summer 2007 YI Participant Report of Changes in Leadership Skills

	Start of Summer			End of Summer		
Skills	Mean	SD	N	Mean	SD	Difference
Fundamentals of Leadership	2.40	.47	30	2.53	.36	.13
Written Communication	2.22	.40	30	2.35	.40	.13
Speech Communication	2.26	.37	30	2.29	.39	.03
Character Building	2.50	.38	30	2.66	.25	.16
Group Dynamics	2.40	.39	30	2.48	.37	.08
Decision-Making	2.43	.42	30	2.53	.40	.10
Problem-Solving	2.41	.44	30	2.57	.39	.16
Personal	2.50	.40	30	2.60	.28	.10
Planning	2.42	.43	30	2.47	.36	.06

*p < .10
**p<.05

Technology Use

Technology use was measured by participants' self-report of their frequency of use of 12 types of technology. Participants rated themselves on a scale ranging from 1 "Never" to 4 "Daily." Higher scores indicated greater frequency of use. Prior to entering the program, participants rated their frequency of use highest on using computers to complete schoolwork and accessing the Internet. Their least frequent use was in the areas of creating web pages and buying things on the Internet.

As shown in Table 3, study participants reported significantly more frequent use in sending email, t (25) = 2.11, $p < .05$, and somewhat more frequent use of accessing the Internet, t

(26) = 1.84, $p < .10$, and creating web pages, t (21) = 1.80, $p < .10$, at the end of the summer program.

Table 3
Summer 2007 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.	3.21	.77	29	3.52	.74	.31
I send email.	2.42	1.03	26	3.00	.94	.58**
I access the Internet (websites, surf the web).	3.52	.93	27	3.89	.32	.37*
I create web pages.	1.64	.95	22	2.14	.83	.50*
I create graphic designs with computer software and code applications (HTML, Dreamweaver, etc.).	2.25	1.11	24	2.42	.93	.17
I use word processing software applications to write text.	3.07	1.00	29	3.10	.77	.03
I use data processing software applications for databases or spreadsheets.	2.26	.98	27	2.19	.92	-.07
I use digital video equipment (cameras/video).	2.62	1.30	26	2.92	.84	.31
I participate in Internet chat rooms/discussion boards/listservs.	2.11	1.15	27	2.52	1.09	.41
I play computer games.	2.89	1.01	27	2.78	.89	-.11
I buy things on the Internet.	1.52	.95	23	1.52	.90	.00
I use the computer to complete school assignments.	3.55	.69	29	3.45	.74	-.10

*p < .10
**p<.05

Technology Competence

Technology competence was measured by participants' self-report of knowledge in nine different areas. Participants rated themselves on a scale ranging from 1 "No knowledge" to 4 "Excellent knowledge." Prior to program participation, teens reported their highest levels of

knowledge in the use of input and output devices to successfully operate computers, VCRs, audiotapes, etc., and working collaboratively with others to use technology to compile, synthesize, produce, and disseminate information.

As shown in Table 4, teens who participated in the 2007 YMCA Youth Institute Intensive Summer Program reported significant improvement in creating multimedia products with support from teachers, family members, or student partners, t (25) = 3.16, $p < .05$, and some improvement in the use of a variety of media and technology resources to create knowledge products for audiences inside and outside the classroom, t (27) = 3.16, $p < .10$.

Table 4
Summer 2007 YI Participant Report of Changes in Technology Competencies

Technology Competency	Before Summer			End of Summer		
	Mean	SD	N	Mean	SD	Difference
Use input and output devices to successfully operate computers, VCR's, audiotapes, etc.	3.56	.64	27	3.74	.45	.18
Use a variety of media and technology resources to create knowledge products for audiences	2.93	.87	27	3.37	.69	.44*
Work collaboratively with others to use technology to compile, synthesize, produce, and disseminate information	3.11	.85	27	3.41	.57	.30
Create multimedia products with support from teachers, family members, or student partners.	2.73	.92	26	3.50	.65	.77**
Use technology tools to locate, evaluate, and collect information from a variety of sources.	3.08	.74	26	3.31	.68	.23
Use technology tools to process data and report results.	2.85	.82	27	3.26	.71	.41
Use technology in the development of strategies for solving problems in the world.	2.92	.76	25	2.92	.81	.00
Use technology tools for managing and communicating personal/professional information.	2.74	.86	27	3.00	.96	.26
Use a variety of media and formats to communicate information and ideas effectively.	2.78	.80	27	2.93	.78	.15

*p < .10
**p<.05

School Attitudes

As shown in Table 5, teens who participated in the 2007 YMCA Youth Institute Intensive Summer Program reported no significant changes in their attitudes toward school.

Table 5
Summer 2007 YI Participant Report of Changes in School Attitudes

	Before Summer			End of Summer		
School Attitude Scale	Mean	SD	N	Mean	SD	Difference
Academic Self-Perceptions	5.42	.78	26	5.30	.82	-.12
Goal Valuation	6.25	.83	26	6.60	.67	.35
Motivation/Self-Regulation	5.52	.99	26	5.42	1.12	-10

*p < .10
**p<.05

Conclusions

Participants in the 2007 YMCA Youth Institute Intensive Summer Program reported no significant changes on any of the nine leadership skill areas. This lack of change in leadership skills is vastly different than the results of the evaluations of the last five summer programs. For example, significant improvements where found in all nine leadership areas in 2004, in eight areas in 2005, and in six areas in 2006. Further examination of the data shows a trend in which YI participants are self-reporting better leadership skills upon program entry. In part, this might be because approximately 38% of the entering 2007 class had already graduated from the Stephens Middle School Youth Institute which also provides leadership training. Given the lack of differences in this area this summer, YI staff may want to consider more sophisticated leadership and group activities to help youth further hone and develop their leadership skills. They may also want to ensure that positive youth develop strategies are used throughout the summer program and that all staff is trained in these concepts.

Participants reported significant gains in only one of the 12 technology use areas. Once again, this finding is quite different from previous years' findings. This year, participants self-reported a significant increase in the use of email, and somewhat of an increase in creating web pages and accessing the Internet. Given the program emphasis on technology skills, it is somewhat puzzling why no changes were noted in technology use. However, it is worth noting that, upon program entry, 2007 YI participants self-reported significantly more use of graphic design software, digital video equipment, computer games, and computers to complete school assignments as well as somewhat more use of word processing software than previous program cohorts. This suggests that 2007 participants were more technologically "savvy" than those from prior years. These findings may, once again, have been influenced by the high number of Stephens' graduates who entered the program. Program staff should consider these findings when revising their technology curriculum and areas of program emphasis so that participants will continue to be challenged to learn and master new and different technology throughout the middle and high school program.

Participants self-reported only one significant gain in the 9 areas of technology competencies; creating multimedia products with support from teachers, family members, or student partners. Participants also gained some competency in using a variety of media and technology resources to create knowledge products for audiences. These findings, once again, are quite different from previous years' findings, which typically reflected significant increases in all of the technology competence measures after summer program participation. The 2007 participants did report significantly higher knowledge entry scores in input and output devices, use of a variety of media and technology resources to create knowledge products, use of technology skills to process data and report results, use of technology in the development of strategies for solving problems in the world, use of technology tools for managing and

communicating personal/professional information and use of media and formats to communicate information and ideas to audiences. However, the lack of findings in this area might also be due to the increased emphasis on movie-making this summer which may have resulted in less learning in other technology areas. Program staff might want to carefully review their technology priority areas to ensure that participants do master the technology envisioned in the objectives of the program. They should also design projects and tasks to require higher knowledge capabilities than those that may have been offered to participants in prior programs.

The YI Intensive Summer Program participants did not report any significant improvements on the three school attitude areas. This is in contrast to last year when participants reported significant improvements in both academic self-perceptions and motivation/self-regulation. One possibility for the lack of findings is that participants were not in school during the program so did not have the opportunity to accurately evaluate differences in some of the attitude areas. In addition, many participants would be entering new schools in the fall which may have created increased anxiety as the start of school grew nearer. However, if the YI is committed to positively influencing school attitudes, program staff will need to emphasize academics during the year-round portion including providing academic mentoring and college preparation workshops. It might also be possible for staff to more actively link the learning from the summer program to the "real" world throughout the program. For example, as part of workshops, staff could make suggestions regarding how specific skills might be helpful in high school or college.

In conclusion, the findings reported here are very different than those of prior years. The lack of change in these areas may be an anomaly or may indicate the need to review and revise the summer program curriculum and training experiences to take into consideration the

heightened skills of incoming youth. It will be interesting to see if these youth report changes in these areas after participation in the year-round program.

References

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