

**Outcome Evaluation of the 2003 Long Beach Communities  
Organizing Resources to Advance Learning (CORAL) Youth  
Institute Intensive Summer Program**

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## **Methods**

Self-report survey data was collected from all entering 2003 CORAL Youth Institute Intensive Summer Program participants on their first and last day of the program. 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 Long Beach CORAL Technology Skills Inventory, was created by Dr. Jo Ann Regan of the California State University, Department of Social Work specifically to evaluate this project. The Technology Inventory primarily consists of two sections, one on frequency of technology use and one on technology competency.

## Sample

As shown in Table 1, the participants of the 2003 CORAL Youth Institute Intensive Summer Program ranged from 13 to 17 years of age. About half (51%) were 13 or 14 while the rest were between 15 and 17. There were slightly more males (54%) than females (46%). Asian American/Pacific Islanders (35%) and Latinos (30%) were the largest ethnic groups. Almost two-thirds (61%) of the sample were 8<sup>th</sup> or 9<sup>th</sup> graders.

**Table 1**  
**Sample Description of Year 3 Youth Institute Participants**  
**(N = 37)**

	<u>%</u>	<u>N</u>
◆ Age at Start of Program		
13	18.9%	7
14	32.4%	12
15	27.0%	10
16	16.2%	6
17	5.4%	2
◆ Gender		
Male	54.1%	20
Female	45.9%	17
◆ Ethnicity		
Asian American/Pacific Islander	35.1%	13
Latino	29.7%	11
African-American	13.5%	5
European-American	13.5%	5
Mixed Ethnicities	8.1%	3
◆ Grade		
8 <sup>th</sup>	29.7%	11
9 <sup>th</sup>	32.4%	12
10 <sup>th</sup>	21.6%	8
11 <sup>th</sup>	16.2%	6

## Leadership Skills

Nine types of leadership skills were measured including fundamentals of leadership (alpha = .90), written communication (alpha = .92), speech communication (alpha = .92), character-building (alpha = .91), decision-making (alpha = .85), group dynamics (alpha = .90), problem-solving (alpha = .91), personal (alpha = .92), and

planning ( $\alpha = .94$ ). Participants rated themselves on engaging in each behavior on a scale ranging from 0 “Almost Never” to 3 “Almost Always.” Higher scores indicated better self-perceived skills.

As shown in Table 2, teens who participated in the 2003 CORAL Youth Institute Intensive Summer Program reported significant improvements in all nine areas of leadership. The significant improvements were found in Fundamentals of Leadership  $t(34) = 7.32, p < .05$ , Written Communication  $t(33) = 6.37, p < .05$ , Speech Communication Skills  $t(34) = 6.74, p < .05$ , Character-Building Skills  $t(33) = 3.23, p < .05$ , Group Dynamic Skills  $t(33) = 7.02, p < .05$ , Decision-Making Skills  $t(34) = 4.45, p < .05$ , Problem-Solving Skills  $t(34) = 5.90, p < .05$ , Personal Skills  $t(33) = 6.85, p < .05$ , and Planning Skills,  $t(34) = 7.21, p < .05$ . Prior to attending the program, these teens rated themselves lowest on speech communication skills and problem-solving skills and highest on character-building and personal skills. The greatest gains were found in problem-solving, fundamentals of leadership and planning skills.

**Table 2**  
**Participant Report of Changes in Leadership Skills**  
**(N = 37)**

<u>Skills</u>	<u>Pre Summer</u>		<u>N</u>	<u>Post Summer</u>		<u>Difference</u>
	<u>Mean</u>	<u>SD</u>		<u>Mean</u>	<u>SD</u>	
Fundamentals of Leadership	2.07	.62	35	2.63	.32	.56*
Written Communication	2.02	.65	34	2.49	.45	.47*
Speech Communication	1.93	.61	35	2.41	.48	.48*
Character Building	2.46	.42	34	2.67	.41	.21*
Group Dynamics	2.16	.45	34	2.56	.37	.39*
Decision-Making	2.25	.45	35	2.61	.42	.35*
Problem-Solving	1.96	.67	35	2.56	.40	.60*
Personal	2.33	.45	34	2.71	.27	.39*
Planning	2.05	.58	35	2.57	.38	.53*

\*p<.05

#### Technology Use

Technology use was measured by participants' self-report the 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 at home and school, accessing the Internet and using computers to complete schoolwork. Their least frequent use was in the areas of buying on the Internet, graphic design, creating web pages and data processing.

As shown in Table 3, teens who participated in the 2003 CORAL Youth Institute Intensive Summer Program made several significant increases in their frequency of use of

technology at school and home. They reported significantly more frequent use of e-mail,  $t(34) = 5.59, p < .05$ , creation of web pages  $t(31) = 4.19, p < .05$ , creation of graphic designs with computer software and code applications  $t(34) = 7.06, p < .05$ , use of word processing software applications to write text  $t(34) = 2.53, p < .05$ , use of data processing software applications for databases or spreadsheets  $t(34) = 5.24, p < .05$ , use of digital video equipment  $t(34) = 6.02, p < .05$ , participation in Internet chat rooms/ discussion boards  $t(34) = 3.09, p < .05$ , and use of computers to complete school assignments  $t(34) = 2.45, p < .05$ . The greatest gains in frequency of technology use were found on creating graphic designs, creating web pages, using data processing software and using digital video equipment.

**Table 3**  
**Participant Report of Changes in Technology Use**  
**(N = 37)**

	<u>Pre Summer</u>		<u>N</u>	<u>Post Summer</u>		<u>Difference</u>
	<u>Mean</u>	<u>SD</u>		<u>Mean</u>	<u>SD</u>	
Use the computer at home/school	3.40	.85	35	3.37	.84	.03
Send e-mail	2.46	1.12	35	3.40	.70	.94*
Access the Internet	3.44	.82	34	3.60	.70	.15
Create web pages	1.53	.92	32	2.59	1.04	1.06*
Create graphic designs with computer software applications	1.46	.92	35	2.97	1.01	1.51*
Use word processing software applications to write text	3.00	.59	35	3.34	.84	.34*
Use data processing software for databases or spreadsheets	1.74	.82	35	2.71	1.01	.97*
Use digital video equipment	1.91	.85	35	2.89	.87	.97*
Participate in Internet chat rooms/listservs	2.06	1.14	35	2.80	1.11	.74*
Play computer games	2.66	.87	35	2.71	1.10	.06
Buy things on the Internet	1.45	.94	33	1.52	.91	.06
Use the computer to complete school assignments	3.11	.80	35	3.43	.78	.31*

\* $p \leq .05$

**Note:** Participants were not in school during the summer.

#### 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 area of working collaboratively with others to use technology to compile, synthesize, produce and disseminate information and creative works. Their lowest levels of knowledge were in the areas of using technology to manage and communicate personal and professional information and using technology in the development of strategies for solving problems in the world.

As shown in Table 4, teens who participated in the 2003 CORAL Youth Institute Intensive Summer Program reported significant improvements in their knowledge of: (a) input and output devices to successfully operate computers, VCRs, audiotapes and other technologies  $t(33) = 4.22, p < .05$ ; (b) a variety of media and technology resources to create knowledge products for audiences inside and outside the classroom  $t(33) = 7.08, p < .05$ ; (c) working cooperatively and collaboratively with peers, experts, family members, and others to use technology to compile, synthesize, produce and disseminate information and creative works  $t(32) = 4.18, p < .05$ ; (d) the creation of multimedia products with support from teachers, family members or student partners  $t(33) = 4.87, p < .05$ ; (e) the use of technology tools to locate, evaluate, and collect information from a variety of sources  $t(33) = 5.91, p < .05$ ; (d) the use of technology tools to process data and report results  $t(33) = 6.01, p < .05$ ; (e) the use of technology in the development of strategies for solving problems in the world,  $t(32) = 5.78, p < .05$ ; (f) the use of technology tools for managing and communicating personal/professional information  $t(33) = 7.23, p < .05$ ; and, (f) the use of a variety of media and formats to communicate information and ideas effectively to multiple audiences  $t(33) = 6.14, p < .05$ .

The greatest knowledge gains were found on use of media and technology resources to create knowledge products for audiences, use of technology for managing and communicating personal/professional information and use of technology tools to process data and report results.

**Table 4**  
**Participant Report of Changes in Technology Competencies**  
**(N =37)**

	<u>Pre</u>		<u>N</u>	<u>Post</u>		<u>Difference</u>
	<u>Mean</u>	<u>SD</u>		<u>Mean</u>	<u>SD</u>	
Use input and output devices to successfully operate computers, VCR's, audiotapes, etc.	2.88	.84	34	3.50	.75	.62*
Use a variety of media and technology resources to create knowledge products for audiences	2.29	.91	34	3.53	.62	1.24*
Work collaboratively with others to use technology to compile, synthesize, produce, and disseminate information	3.03	.77	33	3.61	.61	.58*
Create multimedia products with support from teachers, family members, or student partners.	2.59	.96	34	3.53	.62	.94*
Use technology tools to locate, evaluate, and collect information from a variety of sources.	2.71	.84	34	3.62	.65	.91*
Use technology tools to process data and report results.	2.38	.82	34	3.41	.61	1.03*
Use technology in the development of strategies for solving problems in the world.	2.18	.88	33	3.12	.74	.94*
Use technology tools for managing and communicating personal/professional information.	2.09	.90	34	3.24	.78	1.15*
Use a variety of media and formats to communicate information and ideas effectively.	2.24	.92	34	3.15	.86	.91*

\*p< .05

## Conclusions

Participants in the 2003 CORAL Youth Institute Intensive Summer Program reported significant improvements in multiple areas of their leadership, frequency of technology use, and their technology knowledge. Although the absence of a control group makes it difficult to link these changes specifically to program participation, the results are highly encouraging and in line with the stated goals and objectives of the program. In terms of leadership development, participants reported significant improvement in nine different areas. These findings suggest that the wilderness retreat, project-based learning and program components helped participants further develop a diverse range of leadership skills.

Participants reported significantly more frequent use on eight (61%) out of 12 technology items. However, all of the significant gains were in areas that were specifically targeted by the summer program. For example, the program was not designed to increase frequency of playing computer games or shopping on the Internet. Although most of the participants who entered the program had used the technologies rated here to some degree, program participation appears to have increased their usage in multiple areas. It is likely that the increase in usage can be attributed both to increased access and increased ability. Participants also reported significant knowledge gains on all of the technology competencies. These findings provide additional support for the idea that knowledge and skills were enhanced as well as simply usage. The breadth of the material covered by the summer program is clearly evident given the broad range of knowledge gains reported here.

Overall, these findings provide some support for ideas incorporated into the Youth Institute Framework. The summer program appears to have helped participants to gain multiple new skills and competencies as theorized in the model. In addition, some of the leadership growth may also serve as proxy indicators of improvement in sense of self-efficacy and self-confidence. Taken together these findings are exciting and suggest the program is achieving some of its stated goals. However, it is worth noting, that the summer program is only a small part of the entire Youth Institute experience. It will be interesting to follow these participants and their changes as they progress through the entire program.