

**End of Year One Evaluation of Leadership,  
Technology, Educational Attitudes and  
Positive Youth Development Outcomes for  
Long Beach YMCA High School Youth  
Institute 2011 Alumni**

**Sandra L. Kirkner, M.A.-R.  
Research Associate**

**Julie O'Donnell, Ph.D., M.S.W.  
Professor and Director of Research**

**Kathy Movsisyan, B.S.  
Research Assistant**

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

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## **Introduction**

The YMCA of Greater Long Beach High School Youth Institute (HSYI) is a 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. 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 activities throughout their high school and college years. Involvement opportunities vary by year but include digital art labs, academic advising/homework assistance, personal/home advising, college readiness, surfing/hiking club, community service, equipment check-out, field trips, paid internships, 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, (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 2011 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, a standardized inventory measuring nine areas of leadership. The instrument has strong reliability and validity (Karnes & Chauvin, 2000). The second instrument, The YMCA Youth Institute Survey, measures positive youth development (cultural competency, life skills,

positive core values, sense of self, social competency-responsible choices, community involvement, and positive adult relationships), technology skills, and educational attitudes. The positive youth development measures were created by the researchers based on The Toolkit for Evaluating Positive Youth Development (The Colorado Trust, 2004). The technology skills measure was originally created by Dr. Jo Ann Regan to evaluate this project, however, the measure has been revised several times to reflect the most recent 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. This instrument strong reliability and validity (McCoach & Siegle, 2003).

### ***Sample***

Forty-seven youth completed the summer HSYI in 2011. Of these, 25 (53%) completed beginning of summer and end of year one surveys and are included in these analyses. As shown in Table 1, the participants in this study ranged from 13 to 16 years of age, with the average age of 14 at the start of the program. Sixty-four percent were female. Latinos (68%) were the largest ethnic group, followed by African-Americans (16%). Ninety-two percent were in 8th or 9th grade at program entry. An attrition analysis was used to determine demographic differences between the youth in the “analysis group” and those who did not have the necessary data. No significant differences were found for ethnicity, age, or grade level, however, there were significantly more females in the analysis group. Thus the results found here may be more representative of female participants.

Table 1  
Description of 2011 Youth Institute Alumni Subsample  
(N = 25)

|                                | %   | N  |
|--------------------------------|-----|----|
| <b>Age at Start of Program</b> |     |    |
| 13                             | 40% | 10 |
| 14                             | 44% | 11 |
| 15                             | 12% | 3  |
| 16                             | 4%  | 1  |
| <b>Gender**</b>                |     |    |
| Female                         | 64% | 16 |
| Male                           | 36% | 9  |
| <b>Ethnicity</b>               |     |    |
| Latino                         | 68% | 17 |
| African-American               | 16% | 4  |
| Filipino/Pacific Islander      | 8%  | 2  |
| Multicultural                  | 8%  | 2  |
| <b>Grade</b>                   |     |    |
| 8 <sup>th</sup>                | 56% | 14 |
| 9 <sup>th</sup>                | 36% | 9  |
| 10 <sup>th</sup>               | 8%  | 2  |

## Analyses

### *Measures*

#### *Leadership Skill Scales*

Nine types of leadership skills were measured including fundamentals of leadership ( $\alpha = .89$  to  $.91$ ), written communication ( $\alpha = .88$  to  $.89$ ), speech communication ( $\alpha = .92$  to  $.95$ ), character-building ( $\alpha = .87$  to  $.89$ ), decision-making ( $\alpha = .85$  to  $.86$ ), group dynamics ( $\alpha = .83$  to  $.91$ ), problem-solving ( $\alpha = .84$  to  $.87$ ), personal skills ( $\alpha = .88$  to  $.92$ ), and planning skills ( $\alpha = .88$

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 were investigated using paired t-tests.

### ***Technology Skills***

All of the technology skill questions were analyzed separately using paired t-tests.

### ***Educational Attitude Scales***

The academic self-perception scale ( $\alpha = .83$  to  $.86$ ) consisted of six items related to the perception/confidence that participants had in their own skills. Questions included “I feel that I can learn new ideas quickly” and “I feel smart in school.” The goal valuation scale ( $\alpha = .87$  to  $.93$ ) consisted of six items that measured how much participants valued educational tasks. 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 ( $\alpha = .87$  to  $.90$ ) consisted of ten items and measured levels of self-motivation and 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 were investigated using paired t-tests.

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

The cultural competence scale ( $\alpha = .75$  to  $.83$ ) consisted of seven items on 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 ( $\alpha = .85$  to  $.88$ ) consisted of 10 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 values scale ( $\alpha = .77$  to  $.80$ ) 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 ( $\alpha = .77$  to  $.80$ ) 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 feel that I can make a difference.”

The social competency/responsible choices scale ( $\alpha = .76$  to  $.79$ ) consisted of six 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 ( $\alpha = .76$  to  $.84$ ) consisted of four 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 ( $\alpha = .84$  to  $.86$ ) used four items to measure 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 2011 during the year immediately following their summer graduation. Total involvement ranged from 17 to 169 with a mean of 66. The largest number of participants used the digital arts lab or received personal or academic advising while the most frequent activity was using the digital arts lab.

Table 2  
Extent and Type of Involvement in Program Activities  
2011 Youth Institute Alumni  
August, 2011 – June, 2012

| <b>Class of 2011</b>               |          |             |           |              |
|------------------------------------|----------|-------------|-----------|--------------|
| <b>Activity</b>                    | <b>N</b> | <b>Mean</b> | <b>SD</b> | <b>Range</b> |
| Digital Arts Lab                   | 24       | 66          | 38        | 8 - 116      |
| Personal/Home Advising             | 24       | 11          | 6         | 2 – 26       |
| Academic Advising                  | 24       | 7           | 6         | 1 – 24       |
| Surf Club                          | 8        | 3           | 1         | 1 - 5        |
| College Readiness                  | 6        | 1           | .5        | 1 - 2        |
| Hiking Club                        | 5        | 1           | .5        | 1 - 2        |
| Fall Meeting (one-time only)       | 22       | 1           | 0         | 22           |
| Cambodian New Year (one-time only) | 3        | 1           | 0         | 3            |

### *Changes in Leadership Skills*

As shown in Table 3, study participants reported significant improvement in fundamentals of leadership,  $t(23) = 2.16, p < .05$ , written communication,  $t(24) = 2.56, p < .05$ , and planning skills,  $t(23) = 2.15, p < .05$ , and some improvement in group dynamics,  $t(24) = 2.01, p < .10$ , problem-solving,  $t(24) = 1.76, p < .10$ , and personal skills,  $t(23) = 1.91, p < .10$ , at the end of the first year.



Table 3  
Participant Report of Changes in Leadership Skills  
2011 Youth Institute Alumni

| Scale                      | Beginning of Program |     |    | End of Year One |     |            |
|----------------------------|----------------------|-----|----|-----------------|-----|------------|
|                            | Mean                 | SD  | N  | Mean            | SD  | Difference |
| Fundamentals of Leadership | 2.27                 | .60 | 24 | 2.51            | .44 | .24**      |
| Written Communication      | 1.99                 | .61 | 25 | 2.30            | .48 | .31**      |
| Speech Communication       | 2.10                 | .58 | 25 | 2.25            | .56 | .15        |
| Character Building         | 2.52                 | .36 | 24 | 2.55            | .34 | .03        |
| Group Dynamics             | 2.33                 | .42 | 25 | 2.53            | .42 | .20*       |
| Decision-Making            | 2.44                 | .43 | 25 | 2.48            | .36 | .05        |
| Problem-Solving            | 2.24                 | .59 | 25 | 2.48            | .45 | .24*       |
| Personal                   | 2.45                 | .40 | 24 | 2.62            | .31 | .18*       |
| Planning                   | 2.35                 | .51 | 24 | 2.55            | .34 | .20**      |

\*\*p<.05

\*p<.10

### *Changes in Technology Skills*

As shown in Table 4, 2011 alumni reported significant skill gains in digital video filming,  $t(24) = 3.64, p < .05$ , digital music creation,  $t(23) = 2.60, p < .05$ , presentation software,  $t(23) = 3.31, p < .05$ , digital video editing,  $t(24) = 2.79, p < .05$ , graphic design,  $t(24) = 2.18, p < .05$ , and digital photography,  $t(24) = 2.91, p < .05$ , and somewhat more skills in using data processing software,  $t(24) = 1.90, p < .10$ , at the end of their first year.

Table 4  
2011 Alumni YI Participant Report of Changes in Technology Skills

| Technology   | Before Summer |      |    | End of Summer |      |            |
|--|---------------|------|----|---------------|------|------------|
|  | Mean          | SD   | N  | Mean          | SD   | Difference |
| Email use.   | 3.28          | .79  | 25 | 3.40          | .65  | .12        |
| Internet use (visit websites/surf web).  | 3.68          | .69  | 25 | 3.76          | .44  | .08        |
| Web design (construction, layout, domain registration, maintenance, applications, Dreamweaver, Photoshop, HTML, peripheral configuration). | 2.40          | 1.04 | 25 | 2.68          | .85  | .28        |
| Word processing software (Word) to write reports and/or letters.   | 3.60          | .58  | 25 | 3.48          | .65  | -.12       |
| Data processing software (Excel) for databases or spreadsheets.  | 2.52          | .96  | 25 | 2.80          | .76  | .28*       |
| Digital Video Filming (Camera, lighting, etc.)   | 2.72          | 1.02 | 25 | 3.28          | .79  | .56**      |
| Using the computer to complete school assignments.   | 3.56          | .77  | 25 | 3.80          | .41  | .24        |
| Digital music creation (GarageBand, Reason, Logic Pro).  | 2.21          | .98  | 24 | 2.79          | .72  | .58**      |
| Presentation software (Powerpoint, Keynote, Inspiration).  | 2.83          | 1.01 | 24 | 3.46          | .59  | .62**      |
| Digital Video Editing (Final Cut Pro, iMovie, After Effects, etc.).  | 2.16          | 1.14 | 25 | 2.92          | .76  | .76**      |
| Graphic Design (Photoshop, Illustrator, InDesign).   | 2.52          | 1.19 | 25 | 3.04          | 8.41 | .52**      |
| Digital Photography (DSLR camera, lighting, memory card, Photoshop, etc.).   | 2.28          | .98  | 25 | 2.84          | .80  | .56**      |
| Animation (Cinema 4D, After Effects, Stop Motion).   | 1.92          | .95  | 25 | 2.32          | .90  | .40        |

\*\*p<.05

\*p<.10

### *Changes in Educational Attitudes*

As shown in Table 6, there was no differences in participants' educational attitudes at the end of year one.

Table 6  
Participant Report of Changes in Educational Attitudes  
2011 Youth Institute Alumni

| Scale                      | Beginning of Program |      |    | End of Year One |     | Difference |
|----------------------------|----------------------|------|----|-----------------|-----|------------|
|                            | Mean                 | SD   | N  | Mean            | SD  |            |
| Academic Self-Perceptions  | 5.44                 | 1.02 | 24 | 5.47            | .82 | .03        |
| Goal Valuation             | 6.30                 | .77  | 24 | 6.08            | .97 | -.22       |
| Motivation/Self-Regulation | 5.53                 | .88  | 24 | 5.50            | .97 | -.03       |

\*\*p<.05

\*p<.10

### *Changes in Positive Youth Development*

As shown in Table 7, 2011 alumni self-reported somewhat higher life skills,  $t(24) = 1.93$ ,  $p < .10$ , positive core values,  $t(24) = 1.76$ ,  $p < .10$ , and caring adult relationships,  $t(24) = 1.78$ ,  $p < .10$ , at the end of year one.

Table 7

Participant Report of Changes in Positive Youth Development Scales  
2011 Youth Institute Alumni

| Development Scale                         | Beginning of Program |     | N  | End of Year One |     | Difference |
|---|----------------------|-----|----|-----------------|-----|------------|
|   | Mean                 | SD  |    | Mean            | SD  |            |
| Cultural Competence                       | 3.67                 | .33 | 25 | 3.69            | .38 | .03        |
| Life Skills                               | 3.28                 | .37 | 25 | 3.44            | .39 | .16*       |
| Positive Core Values                      | 3.37                 | .39 | 25 | 3.51            | .40 | .14*       |
| Sense of Self                             | 3.34                 | .47 | 25 | 3.39            | .44 | .05        |
| Social Competency/Personal Responsibility | 3.45                 | .40 | 25 | 3.53            | .38 | .08        |
| Community Involvement                     | 3.17                 | .64 | 24 | 3.34            | .52 | .18        |
| Caring Adult Relationships                | 3.24                 | .85 | 25 | 3.53            | .53 | .29*       |

\*\*p<.05

\*p<.10

### Conclusions

Just over half of the High School YI Class of 2011 was included in this study. The alumni who continued to be involved over the year engaged in a number of activities including using the digital arts lab and receiving personal and academic support from YI staff. Given the small size of the sample and the lack of a control group, these findings should be viewed and generalized with caution.

These alumni self-reported significant improvement in fundamentals of leadership, written communication and planning skills, as well as some improvement in group dynamics, problem-solving, and personal skills at the end of the summer. These findings appear to suggest that their involvement throughout the year helped them to better develop a number of leadership skills, since, at the end of the summer, the class of 2011 only reported significant changes in speech communication. It is possible that these youth needed additional time and opportunities

in order to enhance their leadership skills, suggesting participation beyond the summer may be important. Efforts to continue to involve summer graduates appear warranted.

These alumni appeared to maintain most of the technology skill gains they reported at the end of the summer as well; in the areas of digital video filming, digital music creation, presentation software, digital video editing, graphic design, and digital photography. However, the gains in web design and animation seen at the end of the summer were not evident among this group at the end of the first year. It is possible that alumni did not have the opportunity to further use and develop these technology skills given the nature of the activities offered during the academic-year program. While it is encouraging to see that diverse technology skill gains were maintained, it may be useful for staff to consider offering periodic technology workshops or training experiences so youth can maintain and further develop their technology skills.

Similar to the findings at the end of the summer, these alumni evidenced no changes in their educational attitudes at the end of their first year of the YI. These findings are quite different from last year when alumni from 2010 self-reported significant improvement in both academic self-perceptions and motivation/self-regulation. It is unclear why there was no positive movement in this area since a number of these alumni had sought academic advising or had been involved in the college readiness program. It may be beneficial for staff to consider new or different strategies to encourage youth in their academic pursuits or more actively outreach to them, even in early high school, through the college readiness grant.

At the end of the summer, the class of 2011 reported significant gains in cultural competence, life skills, positive core values, social competence/personal responsibility and community involvement. However, at the end of the year, there was only some improvement in life skills, positive core values, and caring adult relationships. While it is possible that the smaller sample size and the relatively high levels these participants indicated at program entry

may have contributed to this lack of findings, the lack of positive youth development findings is of some concern. This is particularly true given that last year's alumni self-reported significant improvement in four areas of positive youth development. Given the emphasis the program places on positive youth development, it may be beneficial for staff to review their strategies for enhancing development in the areas measured here.

The results here were somewhat mixed. Alumni YI participation appears to have contributed to the development of a broad range of leadership skills and maintenance of most relevant technology skills. However, it did not appear to make a difference in educational attitudes or in most areas of positive youth development. It may prove useful to add more structure into the alumni program or to more carefully design program activities to touch on the latter two areas.

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