

Evaluation of the Leadership Institute: A Program to Build Individual and Organizational Capacity Through Emotional Intelligence

Abstract

The purpose of the study reported here was to evaluate the impact of Leadership Institute, a program designed to strengthen leadership capacity through developing individuals' emotional intelligence (EQ). A pre- and posttest approach was used to collect data from two workshops with identical EQ content, program structure, and evaluation. Results showed the program yielded significant improvement on evaluation participants' overall EQ score and composite scales and subscales measuring specific areas of EQ. The findings support previous research that EQ can be learned and developed. Extension professionals are encouraged to consider programs to improve EQ as a tool for building capacity.

Claire Yueh-Ti Chen
Graduate Research
Associate
chen.529@osu.edu

Jeff King
Associate Professor
and Director, OSU
Leadership Center
king.20@osu.edu

Graham R. Cochran
Associate Professor
cochran.99@osu.edu

Karen J. Argabright
Graduate Research
Associate
argabright.2@osu.edu

Department of
Agricultural
Communication,
Education, and
Leadership
The Ohio State
University
Columbus, Ohio

Introduction

Challenges from leading in a complex 21st century workplace create development needs for individuals and organizations. Emotional intelligence as a personal capacity, brought to life through behaviors on the job, has been identified as a critical determinant of effective leadership (Bradberry & Greaves, 2009; George, 2000; Goleman, 1998; Goleman, Boyatzis, & McKee, 2002; Kerr, Garvin, Heaton, & Boyle, 2005; Rosete & Ciarrochi, 2005; Zeidner, Matthews, & Roberts, 2009). Emotional Intelligence (EQ) is:

A field of inquiry that explores how human beings apply their subjective, non-cognitive behavioral skills to successfully manage and improve their relationships and life conditions...EQ distinguishes between learned behaviors

and the inherited characteristics which are measured in part by IQ assessments" (Hughes & Terrell, 2008, p. 6).

In his extensive work of EQ study, Goleman (2004) found that qualities traditionally associated with leadership (e.g., intelligence, toughness, determination, and vision) are insufficient. He stated that ". . . truly effective leaders are also distinguished by a high degree of emotional intelligence, which includes self-awareness, self-regulation, motivation, empathy, and social skill" (p. 1). The basic skills of EQ will be increasingly important for team work and helping people learn how to work together more effectively, therefore, organizations would do well to boost their collective EQ in order to thrive (Goleman, 2006).

The nature of Extension professionals' daily work involves a great deal of interpersonal interaction and collaboration; therefore, being able to enhance capacities of clientele and Extension professionals themselves is needed and expected (Merkowitz & Earnest, 2006). Core competencies related to EQ skills such as interpersonal relationships, teamwork and relationship, and understanding stakeholders and communities have been identified for Extension professionals to succeed in the OSU Extension (Cochran, 2009). EQ appears as an important capacity relevant to the success of Extension professionals.

Program Context

The program titled Leadership Institute-Leadership and Emotional Intelligence: Building Individual and Organizational Capacity for the Next Decade is a training program focused on enhancing participants' emotional intelligence competencies. The program conducted over 2 months, consisted of two full-day workshops, a 1-hour coaching and feedback session, and two 75-minute webinars, purposefully designed for in-depth engagement (Argabright, King, Cochran, & Chen, 2013).

Purpose

The purpose of the study reported here was to evaluate the impact of a program, called the Leadership Institute, designed to improve individuals' EQ. Evaluation objectives were to:

1. Explore differences between the subjects' pre and post total EQ-i assessment scores.
2. Explore differences between the subjects' pre and post five composite scales of the EQ-i assessment.
3. Explore differences between the subjects' pre and post 15 subscale components of the EQ-i assessment.

Methods

The quantitative study used a descriptive design with a pre- and posttest approach. The Bar-On Emotional-Quotient Inventory (EQ-i) was adopted as the assessment tool in the study. The EQ-i contained 133 self-reported items to assess an individual's EQ competence as related to his/her "potential for performance rather than performance itself" (Bar-On, 2004, p. 14). The EQ-i was

copyrighted by Multi Health System Corporation (MHS) and used with permission. The EQ-i assessment possessed face and content validity (Bar-On, 2004). The reliability of EQ-i assessment ranged from Cronbach alpha coefficients of .69 (Social Responsibility) to .86 (Self-Regard), with an overall average internal consistency coefficient of .76 (Bar-On, 2004).

Data were collected from participants who completed both the initial and post-workshop assessment for two Leadership Institutes held in 2010 and 2011, including 16 of the 20 participants from 2010 workshop, and 14 of the 15 participants from 2011 workshop. Each participant was asked to respond to each item on a five-point scale, ranging from "Not True of Me" to "True of Me."

The MHS online assessment portal service was used for data collection with EQ-i assessment. The raw scores were converted into standard scores based on a mean of "100" and a standard deviation of 15 in order to allow for comparison between subscales, composite factors, or total EQ scores in and between respondents from the same population (Bar-On, 2004). The EQ-i assessment produces a total EQ score, five composite scale scores, and 15 EQ subscale scores (Bar-On, 2004). High EQ scores (above 100) indicate "emotionally intelligent" people, while lower scores indicate a need to improve "emotional skills" in specific areas (Bar-On, 2004). Data collected were downloaded from MHS for analysis. The individualized scoring reports were used as coaching resources during individual feedback sessions. Paired *t*-tests were used in order to test the impact of the workshop on participants' EQ competence. However, because data were collected with the self-selected census, no random sampling was done, and no inference from a sample to a population is being drawn. Data were analyzed using SPSS version 20.

Results

The results are reported with demographics profiles of evaluation participants for each workshop, and followed by findings for each research objective.

Demographics Profiles of Leadership Institute Evaluation Participants

The average age of the 2010 evaluation participants was 39 years (SD = 7.65), ranging from 30 to 58 years (Table 1). Over half of the participants were females (56%) in supervisory roles (63%). Nearly half of the participants worked for Extension. The average age of the 2011 evaluation participants was 45 (SD = 12.35), ranging from 31 to 61 years. The majority were females (79%) in supervisory roles (64%). Over half of the evaluation participants worked for Extension. The roles of Extension participants included Regional Director, County Extension Director, Extension Educator, and Program Assistant.

Table 1.

Demographics Profile for the 2010 and 2011 Leadership Institute Evaluation Participants

	2010		2011	
	n	%	n	%

GENDER				
Male	7	44%	3	21%
Female	9	56%	11	79%
PROFESSIONAL CAPACITY				
Supervisor	10	63%	9	64%
Non-Supervisor	6	38%	5	36%
ORGANIZATION				
Extension	7	44%	9	64%
University- non Extension	4	25%	4	29%
Business	5	31%	0	0%
Non-profit/ government	0	0%	1	7%

Findings for Evaluation Objectives

Statistically significant differences are found in pretest to posttest scores for total EQ score of 2010 and 2011 evaluation participants. The paired t-test was found to be statistically significant in pretest to posttest scores for total EQ score of 2010 evaluation participants, $t(15) = 3.81, p < .05, d = .73$ (Table 2). The effect size of this analysis was found to close to Cohen's (1988) convention for a large effect ($d = .80$). The results indicate a significant improvement on 2010 participants' post-workshop total EQ score ($M = 108, SD = 9.60$) over their pre-workshop total EQ score ($M = 100, SD = 13.05$). The paired t-test was found to be statistically significant on 2011 evaluation participants' total EQ score, $t(13) = 4.41, p < .05, d = .62$ (Table 3). The effect size of this analysis ($d = .62$) was found to exceed Cohen's (1988) convention for a medium effect ($d = .50$). The results indicate a significant improvement on 2011 participants' total EQ score after the workshop ($M = 110, SD = 12.79$) over pre-workshop total EQ score ($M = 102, SD = 14.21$).

Table 2.

Descriptive Statistics, t-test and Effect Size Results for Total EQ score, Five Composite Scales, and 15 Subscale Components of the 2010 Leadership Institute Evaluation Participants

Outcome	Pretest		Posttest		$t(15)$	Cohen's d
	M	SD	M	SD		
Total EQ Score	99.94	13.05	108.25	9.60	3.8*	.73
INTRAPERSONAL	100.19	15.23	108.50	11.57	3.4*	.61
Self-regard	99.69	14.80	106.19	9.66	2.6*	.52

Emotional self-awareness	98.63	16.79	106.31	18.50	2.09	-
Assertiveness	104.13	16.15	108.31	12.25	1.61	-
Independence	102.56	14.40	106.50	16.00	1.49	-
Self-actualization	97.06	14.42	106.06	9.12	3.0*	.75
INTERPERSONAL	95.06	14.33	101.00	12.61	2.6*	.44
Empathy	97.38	16.32	101.13	13.49	1.38	-
Social-responsibility	99.13	15.21	102.69	9.68	1.46	-
Interpersonal Relationship	93.19	14.26	100.63	15.56	2.6*	.75
STRESS MANAGEMENT	104.44	11.97	110.13	8.93	2.3*	.54
Stress tolerance	104.50	11.89	108.88	9.44	1.70	-
Impulse control	104.13	11.37	109.31	8.84	3.4*	.51
ADAPTABILITY	99.69	13.55	107.06	11.40	3.2*	.59
Reality testing	100.75	13.15	106.50	8.33	2.3*	.52
Flexibility	97.50	17.61	106.38	15.93	3.8*	.53
Problem-solving	100.94	14.98	103.56	16.10	1.05	-
GENERAL MOOD	99.31	10.15	105.06	8.61	2.09	-
Optimism	98.88	12.38	105.25	10.25	2.09	-
Happiness	100.19	11.06	105.69	8.16	1.76	-
* $p < .05$, $n = 16$.						

Table 3.

Descriptive Statistics, t-test and Effect Size Results for Total EQ score, Five Composite Scales, and Fifteen Subscale Components of the 2011 Leadership Institute Evaluation Participants

Outcome	Pretest		Posttest		$t(13)$	Cohen's d
	M	SD	M	SD		
Total EQ Score	101.64	14.21	110.00	12.79	4.41*	.62
INTRAPERSONAL	100.86	13.21	110.00	12.19	5.00*	.72
Self-regard	102.00	14.03	107.21	10.89	2.14	-
Emotional self-awareness	101.50	13.22	108.57	12.61	3.21*	.55

Assertiveness	100.00	13.69	108.21	13.85	3.65*	.60
Independence	98.00	11.85	105.29	12.74	3.71*	.59
Self-actualization	102.57	11.49	110.71	7.62	3.58*	.83
INTERPERSONAL	100.00	12.29	106.07	9.77	2.97*	.55
Empathy	100.14	17.47	103.86	12.44	1.73	-
Social-responsibility	102.71	7.05	105.29	7.87	.88	-
Interpersonal Relationship	98.50	13.87	106.21	9.46	2.91*	.65
STRESS MANAGEMENT	104.21	11.79	109.00	12.03	3.14*	.40
Stress tolerance	102.29	11.85	109.79	12.44	3.85*	.62
Impulse control	104.86	12.14	105.79	12.72	.58	-
ADAPTABILITY	102.57	16.18	108.57	15.69	2.05	-
Reality testing	102.71	15.72	107.93	16.65	2.14	-
Flexibility	102.36	16.37	104.50	14.22	.82	-
Problem-solving	102.36	12.76	108.71	13.18	1.75	-
GENERAL MOOD	99.93	12.26	109.07	7.57	3.59*	.90
Optimism	101.64	8.85	107.93	9.56	3.31*	.68
Happiness	99.21	15.84	109.64	7.15	3.14*	.85
* $p < .05$, $n = 14$.						

Statistically significant differences are found in pretest to posttest scores for four composite scales of 2010 and 2011 evaluation participants. For the 2010 evaluation participants, the statistically significant differences were found on four composite scales of Intrapersonal, Interpersonal, Adaptability, and Stress Management (Table 2), and Intrapersonal, Interpersonal, Stress Management, and General Mood for the 2011 evaluation participants (Table 3). The effect sizes of these analyses were found to either close or exceed Cohen's (1988) convention for a medium effect ($d = .50$).

Statistically significant differences are found in pretest to posttest scores for subscale components of 2010 and 2011 evaluation participants. For the 2010 evaluation participants, the paired t-test was found to be statistically significant in pretest to posttest scores for six subscale components, self-regard, self-actualization, interpersonal relationship, impulse control, reality testing, and flexibility (Table 2), and eight subscale components, emotional self-awareness, assertiveness, independence, self-actualization, interpersonal relationship, stress tolerance, optimism, and happiness for the 2011 evaluation participants (Table 3). The effect sizes of these analyses were found between Cohen's (1988) convention for a medium ($d = .50$) and large effect ($d = .80$), except for those of self-actualization, and happiness in 2011 that exceeded a large effect.

Overall, the results show an improvement on evaluation participants' scores for total EQ, five composite scales, and the 15 subscale component scales after the 2010 and 2011 Leadership Institute. Statistically significant improvement on specific scales varies from each workshop, yet the common improved scores of evaluation participants are found on: (a) total EQ (b) composite scales of Intrapersonal, Interpersonal, and Stress Management, and (c) subscale components of self-actualization and interpersonal relationship.

Discussion

In summary, the results of the study showed a statistically significant improvement on the EQ scores of the evaluation participants from Leadership Institute program in 2010 and 2011. The results are consistent with previous research suggesting that EQ competencies are teachable and learnable (Bar-On, 2006; Chernis & Goleman, 2001; Goleman et al., 2002; Merikowitz & Earnest, 2006). It can be concluded that EQ competency can be enhanced by relatively simple didactic methods over a relatively short period of time (Bar-On, 2006). Therefore, the study begins to provide initial empirical evidence for any organizations that seek leadership development programs to enhance individual and organizational EQ capacities, an important capacity for effective leadership (Goleman, 2004).

The results showed significant differences in the subscales of self-actualization and interpersonal relationships both years of the Leadership Institute. The improvement in self-actualization translates to clearer personal alignment of one's life purpose and mission to the day-to-day goals one sets and accomplishes. Today leaders, including Extension professionals, who are able to achieve this alignment will experience more self-fulfillment in the work they do. Furthermore, Handley (2010) believed that growth in self-actualization can provide increased self-motivation for individuals to improve other EQ-related skills to fulfill their life's purpose/mission.

Interpersonal relationships are also critical to leaders within Extension. These relationships with clientele, co-workers, and other stakeholders are the vehicle of identifying local needs, working collaboratively across discipline lines to address needs, and securing needed resource support. When relationships are effective, leaders are better able to positively influence those they work with.

For more confidence in applying these findings to leadership training programs in a broader context, further replications of the same study can be done with a research design using larger sample sizes, control group comparison, and longitudinal method to evaluate long-term program impact. Finally, based on our evaluation and the literature on EQ, we offer insights on benefits to individuals and organizations that are interested in professional development to improve EQ and associated competencies.

1. **Overall EQ is increased**. Changing people in a short time may be difficult, yet EQ training is likely to be the most effective if participants are engaged over a period of time, thus creating a greater EQ awareness to themselves as well as others, resulting in the identification of appropriate behaviors in working with others (Lopes, Cote, & Salovey, 2006). The positive improvement of the results supports the design of the program, in particular, the individual feedback and coaching session. The coaching session strived to improve individuals' performance through highlighting individuals' areas of strengths and deficiency to sustain and enhance their EQ awareness.

2. **Strengths are recognized and can be utilized**. The composite scales of EQ-i assessment are used to assist in indicating respondent's general area of strength and weakness (Bar-On, 2004). Understanding EQ inventory helps individuals to identify and utilize their strengths and develop the areas of deficiency. From an organizational perspective, this information is valuable for Extension organizations to understand human assets and develop an effective strategy to address staffing needs and leadership development planning to better serve Extension clientele. From an individual perspective as an Extension professional whose daily work involves with interpersonal interactions, improvement on understanding themselves (intrapersonal), good social skills (interpersonal), and managing stress well (stress management) while multi-tasking is critical to ensure program success and clientele satisfaction.

3. **High ROI (Return on Investment)**. According to Nadler (2011), "emotional intelligence is *the* often missing piece of skillset and behavior of today's leadership crisis" (p.21). Promoting the development of high EQ with all their leaders to avoid serious problems is critical for organizations. In a time of shrinking budget and increased leadership challenges in Extension organizations, Leadership Institute program can serve as an effective and efficient leadership development opportunity that serves immediate benefits of both individuals and organizations.

References

- Argabright, K. J., King, J., Cochran, G. R., & Chen, C. Y. (2013). Leadership Institute: Building leadership capacity through emotional intelligence. *Journal of Extension*, 51(2). Article: 21AW3. Available at <http://www.joe.org/joe/2013april/iw3.php>
- Bar-On, R. (2004). *Emotional Quotient Inventory (EQ-i): Technical manual*. Toronto, ON: Multi Health Systems.
- Bar-On, R. (2006). The Bar-on model of emotional-social intelligence (ESI). *Psicothema*, 18(1), 13-24.
- Braderry, T., & Greaves, J. (2009). *Emotional intelligence 2.0*. San Diego, CA: Talent Smart.
- Cherniss, C., & Goleman, D. (2001). *The emotionally intelligent workplace*. San Francisco, CA: Jossey-Bass.
- Cochran, G. R. (2009). *Ohio State University Extension Competency Study: Developing a competency model for a 21st century Extension organization* (Doctoral dissertation). Retrieved from ProQuest. (AAT 3375730).
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: L. Erlbaum Associates.
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*, 53, 1027- 1055.
- Goleman, D. (1998). *Working with emotional intelligence*. New York, NY: Bantam.

- Goleman, D. (2004). What makes a leader? *Harvard Business Review*, 82(1), 82-91.
- Goleman, D. (2006). *Emotional intelligence*. New York, NY: Bantam.
- Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Boston, MA: *Harvard Business School Publishing*.
- Handley, F. (2010). Increasing your EQ training capacity. *EQ Conference*. Lecture conducted from EQ University, Austin, TX.
- Hughes, M., & Terrell, J. B. (2008). *A Coach's guide to emotional intelligence: Strategies for developing successful leaders*. San Francisco, CA: Jossey-Bass.
- Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2005). Emotional intelligence and leadership effectiveness. *Leadership & Organization Development Journal*, 27(4), 265-279.
- Lopes, P. N., Cote, S., & Salovey, P. (2006). An ability model of emotional intelligence: Implications for assessment and training. In Druskat, V. U., Sala, F., & Mount, G. (Eds.), *Linking emotional intelligence and performance at work* (pp. 53- 80). Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers.
- Merkowitz, R., & Earnest, G. W. (2006). Emotional intelligence: A pathway to self-understanding and improved leadership capacities. *Journal of Extension* [On-line], 44(4) 41AW3. Available at: <http://www.joe.org/joe/2006august/iw3.php>
- Nadler, R.S. (2011). *Leading with emotional intelligence: Hands-on strategies for building confident and collaborative star performers*. New York, NY: McGraw-Hill.
- Rosete, E., & Ciarrochi, F. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. *Leadership & Organization Development Journal*, 26(5), 388-399.
- Zeidner, M., Matthews, G., & Roberts, R. D. (2009). *What we know about emotional intelligence: How it affects learning, work, relationships, and our mental health*. Cambridge, MA: MIT Press.

Copyright © by *Extension Journal, Inc.* ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the Journal Editorial Office, joe-ed@joe.org.

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)