

Articulating Service Learning and Brain Theory:
Fostering Emotional Intelligence in the Community College Classroom

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It all began with a “pleasure reading” of *Destructive Emotions: How Can We Overcome Them? A Scientific Conversation with the Dalai Lama*, narrated by Daniel Goleman, author of *Emotional Intelligence*. This extraordinary collaboration between Buddhist scholars and Western psychologists, neuroscientists, and philosophers explored the causes and effects of emotions on the human brain and subsequent behaviors. “Each of us has the capacity to shift our moods, at least a bit...” and “...change the ratio of right-to-left activation in the prefrontal areas that offers a barometer of the moods we are likely to feel day to day.” “...brain shift during compassion ...The very act of concern for others’ well-being, it seems, creates a greater state of well-being within oneself” (Goleman, 2003). A significant implication of these findings is that being compassionate and helping others can restore emotions that are appropriate to situations and even alleviate depression.

Researching and utilizing the pedagogy of Service Learning in my community college classroom over the past six years, I knew of its many benefits to students. Service Learning positively impacts cognitive, affective, and psychomotor learning (Hamner, 2002; Mann & Patrick, 2000). It promotes communication and critical thinking skills (Fogarty, 1997). It also creates reciprocal student and teacher motivation (Turner, 2002). But, do students who engage in Service Learning improve in Emotional Intelligence? Can educators impact their students’ Emotional Intelligence? These questions became the two phases for the research project that I

conducted in 2004-05 as a Fellow in the Maricopa Institute of Learning (MIL) program based upon the Scholarship of Teaching and Learning (SoTL) model.

This article highlights the impact of Service Learning on Emotional Intelligence, and the researcher's efforts to foster Emotional Intelligence in two separate Small Group Communication classes at Estrella Mountain Community College in Arizona.

Research Question One

Does engaging in Service Learning impact Emotional Intelligence? This question immediately led to the need to answer the following question: What IS Emotional Intelligence? After an exhaustive read of books and articles on the topic, it became clear that Emotional Intelligence is defined and modeled for either scientific or commercial purposes. I extracted three different scientific models that were used for this study: Meyer, Solovey, & Caruso's (1999) ability-based model in which emotions are tied to cognition and which is operationally based; Bar-On's (1997) self-reporting model based upon self-regard, self-awareness, assertiveness, empathy, stress management, adaptability, and general mood competencies; and Goleman, Boyatziz, & Hay/McBer's (1999) informant report model, based on the competencies of self-awareness, social awareness, self-management, and social skills (Bar-On & Parker, 2000; Goleman, 1995; Salovey, Brackett & Mayer, 2004).

At the beginning of Fall Semester 2004, students were pre-tested online using the Meyer, Salovey, Caruso Intelligence Test (MSCEIT). Results were blind to the researcher, and the semester progressed with no interfering behaviors. As students engaged in their Service Learning projects (self-selected and collaborative), the researcher collected triangulated qualitative data—enquiry (interviews), observation & experience (teacher journal), and examination (student journals and assignments). At the end of the semester, students were post-

tested online using the MSCEIT, and they also self-reported using the instrument (researcher-adapted) based upon the Bar-On Emotional Quotient Inventory Eqi), and the students informant (peer) reported using the Goleman, Boyatziz & Hay/McBer Emotional Competence Inventory ECI (researcher-adapted).

The MSCEIT results are from a one-tailed, matched sample t-tests comparing post-test performance on the MSCEIT to pre-test performance. In total, nine tests were performed: one for the students overall performance and one for each of the eight subcategories of the MSCEIT. For the overall MSCEIT students post-test scores ($M=98.13$) showed a marginally significant increase over their pre-test scores ($M=97.35$), $t(12)=1.48$, $p=.08$. Furthermore, students' post-test scores were higher than students' pre-test scores in all eight subscales of the MSCEIT. However, two of the subscales showed an improvement that was statistically significant. For Subscale B "Facilitation" scores, students performed significantly better in the post-test ($M=98.49$) than the pretest ($M=97.56$), $t(12)=3.16$, $p<.01$. For Subscale F "Sensations" scores, students also scored significantly higher in the post-test ($M=94.84$) than the pretest ($M=93.58$), $t(12)=1.86$, $p<.05$. Both B and F Subscales make up Branch 2 of the MSCSEIT: Facilitating Thought, which indicates the degree to which the respondent can use his or her emotions to improve thinking.

Other significant findings came from the student self-report. Students reported "Good" to "Great" improvement in self-awareness, general mood—happiness and optimism, compassion, and general health, and they attributed their improvement in these areas to "Serving Others."

The informant reports (peer and instructor) also showed that students had improved significantly in adaptability—flexibility and problem-solving and social responsibility.

Results of the triangulated qualitative data showed improvement in self-awareness, social awareness, self-management, and social skills. There was significant improvement in empathy. Student statements such as “helping others,” “made a difference,” “put myself in their shoes,” “I am more outgoing now because I felt powerful at the shelter,” “I will continue going there” “Now I know that I can do anything, if I want to,” provide a direct connection to Service Learning as a cause.

While any classroom research project has innumerable variables, the data based upon three major models of Emotional Intelligence clearly indicated that students who engaged in Service Learning did show an increase in a number of Emotional Intelligence competencies. Students also attributed their improvement to their participation in Service Learning experiences. However, not all of the competencies showed significant improvement. This led to the second question in this research project: As an instructor, can I engage in targeted practices to foster other Emotional Intelligence competencies in my students?

Second Research Question

How can Emotional Intelligence be fostered to a greater degree in the Service Learning (or ANY) Community College classroom? The answers to these questions began with a review of the literature. The Internet, libraries, and self-help sections of bookstores are rife with “how-tos” for improving one’s Emotional Intelligence. There are myriad training workshops (most at exorbitant cost) that one can engage in. Many corporations and businesses provide such training for their employees in efforts to improve working conditions and profits. There are, however, limited resources that deal with the community college (or any higher education) population. It became necessary for me to select materials that could be adapted to the classroom.

The methodology of practical Action Research was chosen for this phase of the project as it was more closely aligned with the goals of the study: change (hopefully, positive change). Good teachers do it all the time—they set goals, plan, act, assess, think, set new goals, plan, act, assess, and think, *ad infinitum*. After all, the educational process should be a dynamic one with continuous and cyclical practices of inquiry, measurement, reflection, and evaluation for the purpose of improving teaching and learning. Aristotle named this process “Praxis,” the art of acting upon the conditions one faces in order to change them—pragmatism—as opposed to “Theoria,” activities concerned with knowing for knowing sake. In addition to a practical goal, the entire process of Action Research is pragmatic: the study occurs within the natural environment (the classroom), and with a natural sample of participants (actual students and the teacher-researcher) (Ornstein & Levine, 2000). Ralph Waldo Emerson said, “Society is always taken by surprise at any new example of commonsense,” too, educators and other professionals are now embracing Action Research for its pragmatic purpose—improvement (Schmuck, 1997).

At the beginning of Spring 2005 semester, a new group of students in the Small Group Communication class were given a self-report instrument based upon the Bar-On Eqi. Results determined that students scored lowest in the following competencies that also had not been significantly improved upon in the prior semester’s study: emotional awareness, emotional expression, self-confidence, vision, adaptability, conflict management, and empathetic listening. These became the particular competencies for the researcher-instructor to attempt to foster using classroom activities. The activities were: targeted journal prompts (Merlevede, 2003), group processing (Segal, 1997), exercises (Lynn, 2002), and instructor coaching (Stein & Book, 2000).

The Action Research cycles for this study began with the above-mentioned results of the pre-test. The first of many new practices was implemented (an “Emotions Bank” exercise)

(Lynn, 2002) to help the students become aware of their feelings. The seven targeted competencies were the focus of a combination of classroom activities, each for a two-week period during the semester. During this and subsequent cycles, the researcher-teacher collected and analyzed triangulated qualitative data by examining journals, recording and reflecting on observations, and conducting interviews.

The culmination of this phase of the project was the analysis of data from the student self-report post-test: emotional awareness improved 55%, emotional expression 58%, self-confidence 65%, vision 71%, adaptability 71%, conflict management 80%, and empathetic listening improved 93%. The qualitative data corroborated the marked improvement shown by the post-test. Student statements included: "I never knew that I could feel empathy, not sympathy, for the children. I really put myself in their shoes," "We really pulled it off as a group, but it couldn't have happened without my part. I didn't realize I could make a difference—not just with the teens, but with my own group's success," "I always hated group work because things always go wrong, but I learned to be patient and to trust and to make changes when I had to," "This is weird [sic] for me because I don't really like kids and I don't like interacting with them [January]...am I getting to love kids?? [March]...it's making me a better sister, I'm not ignoring my siblings so much [April]... I'm going to miss the kid so much, but I'm still progressing at home...my sisters and I actually have discussions and I don't completely blow off my little bro anymore. All those are positive effects that I'm personally proud, and yay 4 me [May]."

Conclusion and Implications of the Project

The answers to the two research questions readily provide the conclusion: Service Learning does promote Emotional Intelligence, and Emotional Intelligence can be fostered in the classroom. Therefore, the simple implications are that students should have the opportunity to engage in Service Learning, and instructors across all disciplines should consider promoting this “success” intelligence. Additionally, educators should be informed and trained in EI coaching techniques, such as the ones utilized in phase two of this project.

Personally and professionally, this study reinforced my beliefs in the benefit of Service Learning, and educated me about Emotional Intelligence. I am committed to using similar EI-building techniques in my other classes, and I am already transferring my knowledge to other social contexts.

Scholarship of Teaching and Learning

Lee Shulman, President of The Carnegie Foundation for the Advancement of Teaching, asserts, “Scholarly teaching is what every one of us should be engaged in every day that we are in a classroom, in our office with students, tutoring, lecturing, conducting discussions, all the roles we play pedagogically. Our work as teachers should meet the highest scholarly standards of groundness, of openness, of clarity, and complexity. But it is only when we step back and reflect systematically on the teaching we have done, and that systematic analysis and reflection leads to a recounting of what we’ve done in a form that can be publicly reviewed and built upon by our peers, that we have moved from scholarly teaching to the scholarship of teaching (MCLI, 2002). It is incumbent on this teacher-researcher who engages in SoTL to share in a public domain. In May 2005, results from Phase One of this project were shared with faculty at a showcase event at Estrella Mountain Community College. The presentation served as a “teaser”

for a faculty workshop in the Fall that will apply learning from the second phase. The author is also sharing her project as a presenter at the University of Texas NISOD Conference in June 2005. Additionally, this article will be revised for submission to the Service Learning Research Conference in Fall 2005.

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