**Emotional Intelligence: Comparing Science and Liberal Arts Students**

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## Abstract

Emotional Intelligence can be defined as the ability to perceive, understand, and manage emotions in yourself and others. Logically, some people should be better at these skills than others. The purpose of this research was to examine differences between college students who have enrolled in different majors. We hypothesized that students in the Liberal Arts would be more Emotionally Intelligent than students in the Sciences, because courses in the Liberal Arts often require students to understand emotions and to empathize with others.

A total of 105 undergraduate students (79 Liberal Arts, 26 Sciences) completed the Mayer-Salovey-Caruso Emotional Intelligence Test V2.0 (MSCEIT; Mayer, Salovey, Caruso, & Sitarenios, 2001) as part of a larger study. The MSCEIT is one of the most commonly used measures of Emotional Intelligence and includes tasks that assess four abilities: the Perception, Integration, Management, and Understanding of Emotions.

Our results were inconclusive. Surprisingly, students majoring in the Sciences obtained slightly higher scores than students majoring in the Liberal Arts; however, these differences were not statistically significant. Future research should be modified in two ways to increase statistical power. First, a larger sample size should be used. Second, analyses should control for participants' sex, age, and year of study.

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## Introduction

Emotional Intelligence has been defined as "the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others" (Mayer & Salovey, 1997, p. 396). Logically, some people should be better at these skills than others. In particular, people who frequently need to understand emotions and empathize with others may be more emotionally intelligent. The purpose of this research was to examine differences between college students who have enrolled in different majors.

Research on college students has focused on the relationship of Emotional Intelligence to academic success. For example, Barchard (2003) and Zeinder, Shani-Zinovich, Matthews, and Roberts (2005) found that some measures of Emotional Intelligence predict academic success, while Gibson (2005) found no significant difference between graduate and undergraduate students. However, little research has compared students with different majors.

Our goal was to compare Emotional Intelligence scores of students from different majors. Many courses within the College of Liberal Arts and the College of Fine Arts require people to

be empathetic towards others and to understand emotions. For this reason, we hypothesized that students majoring in fields within the Colleges of Liberal Arts and Fine Arts would be more emotionally intelligent than students majoring in the Colleges of Sciences and Engineering.

## Method

### *Participants*

A total of 105 undergraduate students (62 female, 43 male) completed our study for course credit. We divided these participants into two groups: 79 students whose major is within the College of Liberal Arts and the College of Fine Arts (Arts students), and 26 students whose major is within the College of Sciences and the College of Engineering (Science students). Their ages ranged from 18 to 52 (mean 20.64, SD 5.80). Participants identified themselves as 65.7% White, 5.7% Black, 7.6% Hispanic, 11.4% Asian, 1.9% Native, and 7.6% other.

***Measures***

The Mayer-Salovey-Caruso Emotional Intelligence Test V2.0 (MSCEIT; Mayer, Salovey, & Caruso, 2002a) is a 141-item scale designed to measure four branches of Emotional Intelligence: Perceiving Emotions, Facilitating Thought, Understanding Emotions, and Managing Emotions. Each branch is measured using two tasks (Mayer, Salovey, Caruso, & Sitarenios, 2003). The two tasks for the Perceiving Branch are Faces and Pictures. For Facilitating, the tasks are Sensations and Facilitation. For Understanding, the tasks are Blends and Changes. Finally, Managing Emotions is measured with the Emotion Management and Emotional Relationships tasks.

The MSCEIT is scored using proportion consensus scoring. In this method, the score that is given for a particular response is calculated using normative data. For instance, if 50% of the normative group chose a particular response to a certain item, then participants who chose that response would receive a score of .50 for that item.

## Results

Science students obtained slightly higher scores than Arts students (Science mean = 98.88, Arts mean = 96.51); however this difference did not reach statistical significance ($t(103) = .84$, $p < .05$).

## Conclusion

Courses in Fine Arts and Liberal Arts require students to understand emotions and to empathize with others more than courses in Science and Engineering. We therefore hypothesized that students majoring in the Arts would score higher on a test of Emotional Intelligence than students majoring in the Sciences. When we compared these two groups empirically, however, we found no significant difference.

Future research should use a larger sample size and should attempt to obtain equal numbers of participants for the two groups. Our sample was small and was predominately within the Colleges of Liberal Arts and Fine Arts. Addressing these two issues will increase power, making it more likely that future research finds significant differences between groups.

Future research should also control for confounding variables that might obscure group differences. For example, women often obtain higher scores than men on tests of Emotional Intelligence (see e.g., Brackett, Mayer, & Warner, 2004; Mayer, Salovey, & Caruso, 2002b) and there are more women in the Arts, and thus differences between the Arts and Sciences are confounded with sex differences. Second, Emotional Intelligence increases slightly with age (Mayer et al., 2002b), and the Arts and Sciences students who participate in a Subject Pool might be different ages or at different stages of their academic careers. Therefore, future research should also control for age and year of study. In our study, Science students obtained slightly higher scores than Arts students (although this difference was not statistically significant), but when sex, age, and year of study are controlled in future research, Arts students might score higher.

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