

A Study on Emotional Intelligence and the Interplay between Types of Emotional Intelligence and Metacognitive Capabilities among Undergraduates

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ABSTRACT

Globally, emotional intelligence has been familiarized as an essential trait of an individual and became very important parameter of a person's knowledge, skills and abilities in academics, personal life and overall success. The interconnection between emotional intelligence and metacognitive capabilities has gained recognition and popularity and eventually needed for excellence in academics. The main purpose of this study is to assess the level of emotional intelligence and investigate its relationship with the metacognitive capabilities across the gender. The statistical sample in this research includes 100 female and 100 male students who were randomly selected from the four constituent colleges of Punjab Agricultural University, Ludhiana in Punjab. The MSCEIT-Mayer-Salovey-Caruso Emotional Intelligence Test (Mayer et al. 2000) and Metacognitive Awareness Inventory (Schraw and Dennison 1994) scales were used in order to assess the emotional intelligence and metacognitive capabilities of the undergraduates. A self-prepared personal information sheet was used to collect demographic data of the respondents. Results revealed positive correlation between strategic and experiential emotional intelligence and metcognitive skills across the gender. The respondents were found confined to low and average level of emotional intelligence despite of gender.

Keywords: *Emotional Intelligence, Experiential Emotional Intelligence, Strategic Emotional Intelligence, Metacognition.*

Mother Nature bestowed humans with emotions. Emotions are significant predictors of anyone's success. Nowadays, Emotional Intelligence is an established phenomenon and is popular under the eye of researchers and psychologists. Emotions are involved in every activity, action and reaction of human being. Emotionally intelligent people are able to recognize their potentialities and they exercise this ability in their personal and professional life as well. In the span of last twenty year, there are plethora of studies which explains the importance and useful nature of emotional intelligence across various concepts.

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Salovey and Mayer (1990) defined emotional intelligence as, 'the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions'. Daniel Goleman (1995) mentioned emotional intelligence as an important for success, including in academic, professional, social and interpersonal aspects of one's life. This skill of being emotionally intelligent can be learned and cultivated through training at earliest in school curriculum.

Salovey and Mayer proposed a four-branch model that identified four different factors of emotional intelligence, as follows:

- 1. *Perceiving emotions*:** The first step in understanding emotions is to accurately perceive them. In many cases, this might involve understanding nonverbal signals such as body language and facial expressions.
- 2. *Reasoning with emotions*:** The next step involves using emotions to promote thinking and cognitive activity. Emotions help prioritize what we pay attention and react to; we respond emotionally to things that garner our attention.
- 3. *Understanding emotions*:** The emotions that we perceive can carry a wide variety of meanings. If someone is expressing angry emotions, the observer must interpret the cause of their anger and what it might mean. For example, if your boss is acting angry, it might mean that he is dissatisfied with your work; or it could be because he got a speeding ticket on his way to work that morning or that he's been fighting with his wife.
- 4. *Managing emotions*:** The ability to manage emotions effectively is a key part of emotional intelligence. Regulating emotions, responding appropriately and responding to the emotions of others are all important aspect of emotional management.

Salovey and Mayer also described that the arrangement of the model is from more basic psychological processes to higher, more psychologically integrated processes. For example, the lowest level branch concerns the (relatively) simple abilities of perceiving and expressing emotion, While, the highest-level branch concerns the conscious and reflective regulation of emotion.

Emotional intelligence can be further divided into sub-areas of 'Experiential and Strategic' emotional intelligence. These areas are linked to the 'Four Branch Model' of emotional intelligence that is central to scientific research in the field.

Experiential Emotional Intelligence assesses a respondent's ability to perceive emotional information, to relate it to other sensations such as colour and taste and to use it to facilitate thought.

Strategic Emotional Intelligence assesses a respondent's ability to understand and manage emotions without necessarily perceiving feelings well or fully experiencing them. It indexes how accurately a respondent understands what emotions signify and how emotions in oneself and others can be managed.

Metacognition can be defined as a person's awareness of knowledge of their own reflection processes or strategies and their ability to direct and regulate these processes. (Lindstorm, 1995)

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The concept of metacognition was first explained by Flavell (1979, 1985) and he defined two components of metacognition, that are, metacognitive knowledge and metacognitive experiences or regulation. There are three types of metacognitive knowledge: first, is knowing the individual which is basically understanding of an individual, his beliefs and perceptions; second, is task knowledge which deals information of task which further leads to performance, and last, is strategic knowledge, which is strategy used to achieve goals. Whereas, metacognitive regulation component deals with strategies which regulate metacognitive skills such as planning, management and evaluation, etc.

Alavinia and Mollahosseini (2012) conducted study on EFL teachers, learners and teacher trainers and revealed a significant relationship between emotional intelligence and listening metacognitive strategies.

Sharei et al. (2012) investigated of the relationship between emotional intelligence and metacognitive capabilities with the ability of mathematical problem solving in the students. The results of the study showed that metacognition and emotional intelligence contribute significantly to the prediction of problem-solving ability.

Mahasneh (2014) conducted a study on 720 participants who were randomly selected from the different faculties of the Hashemite University, Jordan. He reported a significant positive correlation between emotional intelligence and metacognition. He also suggested the need for an enhanced university role in improving student meta-cognition skills through theoretical and applied training programs.

Therefore, the ultimate success in college life comprises in understanding, managing, monitoring, analyzing and applying new content information with greater flexibility. This can only be possible by helping those students who possess emotional balance, competencies and metacognitive skillfulness relevant to learning process.

Objectives

The objectives of the present study are as follows:

1. To assess the level of Experiential and Strategic Emotional Intelligence among undergraduates.
2. To investigate the overall and gender-wise interplay between types of emotional intelligence and metacognitive capabilities among college students.

MATERIALS AND METHODS

Sample

The sample comprised of 200 undergraduate students from four colleges of Punjab Agricultural University in Ludhiana city of Punjab. Proportionate random sampling method was used to select the respondents. The data collection was performed in the selected colleges with the permission of the class-in-charges during working days of the university.

Research Instruments

- **Personal Information Sheet:** The demographic information of the selected respondents was collected through using a self-prepared personal information sheet which comprised of gender, age, educational qualifications, etc.
- **Mayer-Salovey-Caruso Emotional Intelligence Test- MSCEIT:** Mayer-Salovey-Caruso Emotional Intelligence Test (2000) was used to assess the experiential and

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strategic emotional intelligence as well as the overall emotional intelligence of the selected subjects. It is ability-based scale i.e., it measures how well people perform tasks and solve emotional problems, rather than simply asking them about their subjective assessment of their emotional skills.

- **Metacognitive Awareness Inventory (MAI):** The metacognitive skills of the undergraduates were assessed from Metacognitive Awareness Inventory (MAI) designed by Schraw and Dennison (1994).

Procedure

The respondents were approached in the selected colleges with the permission of the class-in-charges during working days and working hours of the university. A formal consent was taken from the class-in-charges. The respondents were explained the objective of the study and the rationale behind the sample selection. They were requested to provide honest responses to all queries/items and assured that the information given by them would be kept confidential and would be used exclusively for the purpose of research work. The respondents were provided with necessary instructions regarding how to respond to each tool. They were requested to answer objectively without discussing the responses among the fellow respondents, so that the information obtained reflected the real competencies of the individual respondent. Necessary care was taken not to be suggestive or giving directions indicating investigators bias. The inventory was attempted by all the respondents independently in the presence of the investigator only.

RESULTS AND DISCUSSION

1. To assess the level of Experiential and Strategic Emotional Intelligence among undergraduates.

Table 1 Gender-wise distribution of mean scores (+SD) across two components of emotional intelligence among college students

Types of Emotional Intelligence	Male Mean+SD	Female Mean+SD	t-value	Overall Mean+SD
Experiential Emotional Intelligence				
High	0.00±0.00	0.00±0.00	NA	0.00±0.00
Average	10.81±1.50	11.14±1.62	1.10	10.98±1.56
Low	6.00±1.64	6.16±1.56	0.47	6.08±1.60
Strategic Emotional Intelligence				
High	0.00±0.00	0.00±0.00	NA	0.00±0.00
Average	10.51±2.13	10.15±1.64	0.67	10.33±1.89
Low	5.74±1.53	5.74±1.43	0.00	5.74±1.48

*NA-Not applicable

Table 1 represents the mean-wise gender differentials across the levels of experiential and strategic emotional intelligence among college students. As per the data reflected by the table, there were none students in the high level of experiential and strategic emotional intelligence. The students were scattered across the average and low level of emotional intelligence. The overall mean scores were higher in the average level of experiential and strategic emotional intelligence among students.

2. To investigate the overall and gender-wise interplay between types of emotional intelligence and metacognitive capabilities among college students.

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Table 2 Interplay between types of emotional intelligence and metacognitive capabilities among college students

Emotional Intelligence and its components	Metacognitive Capabilities	
	Knowledge of Cognition(r)	Regulation of Cognition(r)
Overall Emotional Intelligence	0.54**	0.69**
Experiential Emotional Intelligence	0.62**	0.59**
Strategic Emotional Intelligence	0.71**	0.37*

* Significant at 0.05 level; **Significant at 0.01 level

Table 2 depicted the interplay between types of emotional intelligence and metacognitive capabilities and the result represent a statistically significant correlation between types of emotional intelligence and metacognitive capabilities among the college students of Punjab Agricultural University in Ludhiana. It reflects that as the emotional intelligence goes up it also increases the metacognitive capabilities of the students.

In a study, Mayer et al. (2016) reported that the facilitation of thoughts deals with the use and knowledge of emotions as a primary step which regulates cognitive decisions.

Table 3 Interplay between types of emotional intelligence and metacognitive capabilities among male college students

Emotional Intelligence and its components	Metacognitive Capabilities	
	Knowledge of Cognition(r)	Regulation of Cognition(r)
Overall Emotional Intelligence	0.16	0.67**
Experiential Emotional Intelligence	0.17	0.41**
Strategic Emotional Intelligence	0.15	0.32*

* Significant at 0.05 level; **Significant at 0.01 level

Table 3 reflected the interplay between types of emotional intelligence and metacognitive capabilities. The results presented that experiential and strategic emotional intelligence, were significantly correlated with the regulation of cognition component of metacognitive capabilities among the male students of the university. Also, the overall emotional intelligence of the male students was significantly correlated with the regulation of cognition component of their metacognitive capabilities. Consequently, it can be said that as the understanding of emotional intelligence and its components increases in male respondents, therefore, their regulation of metacognitive skills also improves.

Table 4 Interplay between types of emotional intelligence and metacognitive capabilities among female college students

Emotional Intelligence and its components	Metacognitive Capabilities	
	Knowledge of Cognition(r)	Regulation of Cognition(r)
Overall Emotional Intelligence	0.14	0.58**
Experiential Emotional Intelligence	0.33*	0.18
Strategic Emotional Intelligence	0.16	0.28*

* Significant at 0.05 level; **Significant at 0.01 level

Table 4 depicted that the experiential emotional intelligence was significantly correlated with the knowledge of cognition component of metacognitive capabilities whereas Strategic Emotional Intelligence component was significantly correlated with the regulation of cognition component of metacognitive capabilities of the female students. However, the overall emotional intelligence was significantly correlated with the regulation of cognition

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component of metacognitive capabilities of the female students of Punjab Agricultural University in Ludhiana.

CONCLUSIONS

Emotional intelligence reflects the capacity to understand and manage emotions in positive and adaptive way to de-stress, less anxious, flexibly and effectively disseminate thoughts and ideas, and express empathy towards oneself as well as with others. Being emotionally intelligent strongly enables one to take charge of their own thinking processes and facilitation of emotions and pushes towards better metacognitive abilities. Although, not even half of the undergraduates excel in achieving the high level of emotional intelligence, but interventions are direly needed to make them capable and master the web of emotional intelligence. Also, this study supports the strong and significant relationship between types of emotional intelligence (strategic and experiential) and metacognitive skillfulness among undergraduates which clearly reflected the importance of emotional intelligence and its connection with students' metacognition abilities and eventually the impact on academic learning.

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Conflict of Interest

The author declared no conflict of interests.

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