

# A Study on the Relationship between Academic Delay of Gratification and Emotional Intelligence in Student Teachers

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**Abstract:** The present study is an attempt to examine the relationship between academic delay of gratification and emotional intelligence in student teachers. Sample for the study includes 40 urban student teachers of B.Ed. and M.Ed. classes of an education college in Banjara Hills, Hyderabad, Telangana, India. The data for measuring Emotional intelligence is collected by using the *Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF)*, prepared by Petrides, K. V. & Furnham, A. (2006) for adolescents. The data for measuring delay of gratification is collected using *Academic Delay of Gratification Scale (ADOGS)* for college students prepared by Hefer Bembenutty (1997). For data analysis, Pearson's Product-Moment Correlation coefficient is used. The significance of the test is calculated using critical value table for Pearson's Product-Moment Correlation for the level of significance  $\alpha$  at 0.05. The findings of the study reveal that the academic delay of gratification is positively and moderately related to the variable emotional intelligence in student teachers. No role of course on the variables was found in the study.

**Keywords:** Academic Delay of Gratification, Amygdala, Prefrontal Cortex, Emotional Intelligence, Student Teachers, Student Teacher Educators, Ventral Striatum.

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## I. INTRODUCTION

From the background of neuroscience, the section of the brain associated with rewards is the ventral striatum (Hariri et.al 2006). The amygdala is the emotion processing center, especially associated with the origin of negative emotions. The prefrontal cortex is the section of the brain that is associated with the executive functions like decision making, problem solving and motivation and willpower (Le Doux, 1996 & Goleman.D., 1995).

The amygdala is connected to both, prefrontal cortex and ventral striatum (Banks,S.J. and colleagues, 2007 & Cador,,M, Robbins,.T.W.& Everitt,.B.J.,1989). The ventral striatum is in turn connected to prefrontal cortex (Casey,B.J. and colleagues, 2011).

When learners set temporally distinct but highly rewarding goals, they display academic delay of gratification (Bembenutty, 1999). It calls for regulation of emotions against temptations in the initial stages of the learning process.

When the learners display the ability to self regulate emotions, particularly the negative ones, and stay motivated, it is called emotional intelligence (Goleman, 1995).

It is here by proposed that a self regulated learner displays academic delay of gratification in the initial stages of joining a course of long duration by self regulating negative emotions. This is made possible through the existence of emotional intelligence in the personality of the learner and hence strategies like academic delay of gratification can predict emotional intelligence in self-regulated learners. The mentioned neural interconnectivities among amygdala, ventral striatum and prefrontal cortex also indicate such a possibility.

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In this context, the student teachers pursuing the new two years duration B.Ed. and M.Ed. courses (as per Justice Verma Committee recommendations, 2013), ideally represent the subjects of the study, who must possess emotional intelligence in order to display academic delay of gratification in the beginning of the two years duration course.

The lead researcher established a positive and weak relationship between delay of gratification and emotional intelligence in sub-urban secondary school students, as part of his M.Ed. dissertation (Chakraborty, Rajib & Prabhakaram, Dr. K.S., 2015). The present study is an extension of the research onto student teachers.

**Emotional Intelligence:** Goleman defined emotional intelligence as “the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships” (Goleman 1998: 317).

**Academic Delay of Gratification:** Hefer Bembenuddy defined academic delay of gratification as “students’ willingness to forgo an immediately available option, in favor of a delayed alternative, in order to secure temporarily distant academic rewards, goals, and intentions” (Bembenuddy, 1999).

## II. BODY OF ARTICLE

### STATEMENT OF THE PROBLEM:

A Study on the Relationship Between Academic Delay of Gratification and Emotional Intelligence in Student Teachers.

### RESEARCH OBJECTIVES:

- To study the relationship between emotional intelligence and academic delay of gratification in student teachers.
- To study the role of course in the emotional intelligence of student teachers.
- To study the role of course in the academic delay of gratification of student teachers.

### RESEARCH HYPOTHESES:

- **H<sub>0</sub>:** There is no significant relationship between emotional intelligence and academic delay of gratification in student teachers.
- **H<sub>0</sub>:** There is no significant relationship between B.Ed. students and M.Ed. students with respect to their emotional intelligence.
- **H<sub>0</sub>:** There is no significant relationship between B.Ed. students and M.Ed. students with respect to their academic delay of gratification.

### POPULATION FOR THE STUDY:

The population for this study is the student teachers and student teacher educators in government or private colleges of education in the Greater Hyderabad Municipal Corporation limits of Hyderabad city.

### SAMPLE FOR THE STUDY:

Here 40 student teachers and student teacher educators from B.Ed. and M.Ed. courses of the Ghulam Ahmed College of Education, selected randomly, were taken as the sample of the study.

### TOOLS USED IN THE STUDY:

#### *Measuring Emotional Intelligence:*

The researchers in the present study used *Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF)*, which is a simplified version of The Trait Emotional Intelligence Questionnaire - Short Form (TEIQue-SF, Petrides and Furnham, 2004), for the measurement of the emotional intelligence in respect of four factors of emotional intelligence namely, *Well Being, Self-Control, Emotionality and Sociability* respectively, in adults.

The ASF comprises 30 short statements, two for each of the 15 trait EI facets, designed to measure global trait EI. The subjects respond on a seven-point Likert scale, with 1 representing strongly disagree, 7 representing strongly agree and 4 being neutral. The *internal consistency* of the global score usually **exceeds .80**. The form has been used successfully with children as young as 11 years old.

**Measuring Academic Delay of Gratification:**

Academic Delay of Gratification tendencies were measured using the 10 item Academic Delay of Gratification Scale (ADOGS, Bembenutty,H., 1997).

The internal consistency ADOGS, when Caucasian Americans were taken as sample, is  $\alpha = 0.70$  (Bembenutty & Karabenick, 1998). The 10 items reflect a variety of students’ academic experiences, such as meeting deadlines on assignments, use of the library, interpersonal relations with peers and instructors, and studying course materials.

The responses are obtained in a four point Likert scale ranging from “Definitely choose A,” “Probably choose A,” “Probably choose B,” and “Definitely choose B.”

**SAMPLING:**

Simple random sampling technique is used by the investigator while selecting a sample of 40 student teachers from an education college in Banjara Hills area.

**DATA COLLECTION:**

Formal permission to administer the tests for data collection for two consecutive days, was provided by the Principal of Ghulam Ahmed College of Education.

As the research design of the study is Explanatory Correlational Analysis design, the researchers here collected two scores from each participant as each score represents each variable being studied (Creswell, 2008).

The Trait Emotional Intelligence Questionnaire- Adolescent Short Form (TEIQUE-ASF, Petrides, K.V., Sangareau, Y., Furnham, A., & Frederickson, N. (2006), was administered on adolescent student teachers and student teacher educators of Ghulam Ahmed College of Education, for the measurement of their emotional intelligence on day one of data collection.

Their academic delay of gratification was measured using the 10 items Academic Delay of Gratification Scale (ADOGS, Bembenutty,H., 1997) on the second day of data collection.

**RESULTS:**

**TABLE: I CORRELATION STRENGTH**

Correlation Between Academic Delay of Gratification and Emotional Intelligence		
Mean Academic Delay of Gratification	Mean Emotional Intelligence	Pearson’s Product Moment Correlation Coefficient
3.11	4.692	0.399

**Interpretation:** The average academic delay of gratification value of the sample obtained is 3.11. It is a high value as it is above the mean score. Similarly, the average emotional intelligence score of the sample is found to be 4.692. It is also a high value as it is above the mean score. The correlation coefficient between emotional intelligence and academic delay of gratification obtained is 0.399. Since this r-value is in between 0.3 and 0.6, the strength of the measured relationship is moderate.

**TABLE: II TESTING HYPOTHESIS ONE**

Significance Test for the Correlation Between Emotional Intelligence and Academic Delay of Gratification:	
Academic Delay of Gratification	Emotional Intelligence
n	40
df (n-2)	38
Pearson’s Correlation Strength ( $\gamma$ absolute)	0.399*
$\gamma$ critical from the Critical Value Table of Pearson’s Correlation	0.312
Sig.(Two-tailed)	H <sub>0</sub> : Rejected

\* Correlation is significant at the 0.05 level (2-tailed)

**Interpretation:** The outcome of the data analysis shows that the calculated value or absolute value of  $r$  between delay of gratification in academics and emotional intelligence is 0.399. The critical value is 0.312 for level of significance  $\alpha = 0.05$  from the  $r$  table (Appendix D, Best, J.W., Kahn, J.V., *Research in Education*, Tenth Edition, pp 482). It can be interpreted that academic delay of gratification is positively, moderately and significantly correlated with emotional intelligence. It is because for the level of significance  $\alpha = 0.05$ , degree of freedom (df) = 38, the calculated value of  $r$  is greater than the critical value. Higher emotional intelligence in students leads to higher academic delay of gratification and vice versa.

**TABLE: III TESTING HYPOTHESIS TWO**

Significance Test for the Emotional Intelligence of 15 B.Ed. and 15 M.Ed. Students				
n	df	r* (absolute) from formula	r (critical) from r - table	Sig. (2 – tailed)
15	13	0.183	0.514	H <sub>0</sub> : Accepted

\* Correlation is significant at the 0.05 level (2-tailed)

**Interpretation:** There is no significant difference between B.Ed. and M.Ed. students with respect to their emotional intelligence. It is because the calculated correlation coefficient is less than the critical value of correlation coefficient for df = 13 at level of significance  $\alpha = 0.05$ .

**TABLE: IV TESTING HYPOTHESIS THREE**

Significance Test for the Academic delay of Gratification of 15 B.Ed. and 15 M.Ed. Students				
n	df	r* (absolute) from formula	r (critical) from r - table	Sig. (2 – tailed)
15	13	0.092	0.514	H <sub>0</sub> : Accepted

\* Correlation is significant at the 0.05 level (2-tailed)

**Interpretation:** There is no significant difference between B.Ed. and M.Ed. students with respect to their academic delay of gratification. It is because the calculated correlation coefficient is less than the critical value of correlation coefficient for df = 13 at level of significance  $\alpha = 0.05$ .

### III. CONCLUSION

The extension of duration of the B.Ed. and M.Ed. courses to two years, in order to raise the standard of these courses, as per the recommendations of the Justice Verma Committee 2013, is a welcome change in teacher education. Students who are highly motivated and serious about the teaching profession can be expected to enroll for the teacher education courses now.

But, compared to their predecessors, they have to wait for longer duration of time to enjoy the fruits of their academic labor. This calls for the display of academic delay of gratification from the very first day of either of the teacher education courses by the prospective student teachers.

The present study has established that those who possess the ability to self regulate their emotions are in a better position to successfully complete the two years duration teacher education courses, compared to the rest. Irrespective of the teacher education course pursued by a student, he or she would require the essential trait of emotional intelligence to sail through the course without any obstacle.

The positive, moderately strong and significant relationship between emotional intelligence and academic delay of gratification through this research study establishes the need for the instruction of emotional intelligence in teacher education courses through inclusion of Social Emotional Learning (SEL) programs in the curriculum.

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Due to the practical limitations like time and cost, the study was limited to Hyderabad city limits. The study can be replicated with larger sample size in multiple contexts and others parts of the country and world. Most of the sample subjects were females. Further studies can search for the role of gender of the student teachers in these two variables.

Academic delay of gratification and emotional intelligence are very closely related to academic achievement. A study on whether these two variables predict academic achievement in student teachers can be taken up using multiple regression. Such a research endeavor would further strengthen the requirement for the inclusion of these two variables in teacher education curriculum.

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