

A Study on the relationship of Decision-Making Ability and Thinking Style on Academic Adjustment of Higher Secondary Students

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Abstract

Background: The transition to higher secondary education is a pivotal phase requiring significant academic adjustment. This adjustment is influenced by factors like decision-making ability and thinking styles. Decision-making ability refers to the capacity to make effective choices (Halpern, 2014), while thinking styles, as described by Sternberg (1997), are individuals preferred ways of processing information and solving problems. Both factors play a key role in student's adaptability and academic success. Understanding the relationship between these variables is crucial in addressing the growing pressures in higher education. This study explores their interaction, offering insights for educators and policymakers to support student's academic adjustment and resilience.

Methodology: Stratified random technique was used in the study and the sample consists of 100 students form Chennai district. The investigation of data was analysed with regression analysis.

Findings: The study found that there was a positive significant relationship between decision making ability and thinking style on academic adjustment of higher secondary students.

Keywords: Academic Adjustment, Decision Making Ability, Thinking Style, Higher Secondary Students

Introduction

Thinking style, decision-making ability, and academic adjustment are crucial factors in the educational journey of higher secondary students. Thinking styles, as described by Sternberg (1997), influence how individuals approach problems and process information, while decision-making ability reflects a student's competence in choosing effective solutions under pressure (Halpern, 2014). These cognitive skills significantly impact how students adapt to the demands of higher education. Academic adjustment requires balancing academic performance, emotional stability, and social adaptation. Understanding the interplay between thinking style, decision-making ability, and academic adjustment can provide valuable insights for fostering resilience and success among higher secondary students.

Given the increasing pressure in higher education, understanding the relationship between decision-making ability, thinking style and academic adjustment becomes imperative. This study aims to explore how these variables interact and contribute to the academic success of higher secondary students. The findings can provide insights for educators and policymakers to design interventions supporting students' academic resilience and adjustment.

Review of the study

Name & Year	Objective, Sample Size & Analysis	Major Findings
Pouratashi, M., Sadeghi, J., & Ejei, J. (2019)	<ul style="list-style-type: none">The study "Relationship between Thinking Styles, Academic Adjustment, and Homesickness in Students of Zabol University of Medical Sciences". The study examines the relationship between thinking styles, academic adjustment, and homesickness among 300 medical students.Descriptive statistics and correlation analysis were used for statistical analysis.	Significant relationships were found between thinking styles, academic adjustment, and homesickness. Specific thinking styles were associated with better academic adjustment and lower levels of homesickness

Zhou, M., & Fan, C. (2023)	<ul style="list-style-type: none"> The investigation “Maximizing Tendency Predicts University Adjustment and Academic Performance: The Mediating Role of Decision-Making Styles”. The study observes how maximizing tendency influences university adjustment and academic performance, and to explore the mediating role of decision-making styles among university students. Structural equation modeling was utilized for analysis. 	The study indicates that a higher maximizing tendency enhances university adjustment and academic performance. Decision-making styles mediate this relationship, suggesting that students' decision-making approaches influence how maximizing tendencies affect their academic success and overall adjustment.
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Objective of the study

The focus of this study is to examine the relationship of thinking style and decision making ability on academic adjustment of higher secondary students.

- ❖ To predict whether there is any significant relationship of thinking style and decision making ability on academic adjustment of higher secondary students.

Hypothesis

Based on the objective, the hypothesis was formulated for the study.

- ❖ A significant linear relationship of thinking style and decision making ability occurs with academic adjustment of higher secondary students

Variables

The present study is an attempt to investigate the decision making ability, thinking style and academic adjustment of higher secondary students. The variables involved are:

- ❖ Decision making ability scale
- ❖ Thinking style scale
- ❖ Academic adjustment scale

Methodology

The participants of this study involved 100 higher secondary students from the population of Chennai district who were selected by stratified random sampling. The investigator used a survey method.

Tools used

The *decision making ability scale* used was a standardised tool, which consists of 36 items and was tested for validity and reliability. The reliability of this scale 0.8 was found by Cronbach’s Alpha Method. The obtained reliability coefficient is revealing that the tool is reliable.

The *thinking style scale* was modified and reconstructed by the investigator was used to assess the thinking style of higher secondary students consists of 63 items. The reliability of the scale is 0.8, was found by Cronbach’s Alpha method. The obtained reliability coefficient is revealing that the tool is reliable.

The *academic adjustment scale* was constructed by the investigator, consisting of 37 items. The reliability of this scale is 0.8 was established by Cronbach’s Alpha Method. The obtained reliability coefficient is revealing that the tool is reliable.

Statistical techniques used

Data analysis was achieved using multiple linear regression analysis.

The tool used for data collection was a questionnaire. The questionnaire contains questions on decision making ability, thinking style and academic adjustment. The analysis of data was done using linear regression. The scale is a likert type scale, with multiple choice responses. Responses range from Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree. In this five-point scale, the responses are given weight from 1 to 5 given, as shown: 5 - Strongly Agree, 4 - Agree, 3 - Undecided, 2 - Disagree, 1 - Strongly Disagree.

Analysis of Data and Testing of Hypothesis

In testing the hypothesis stated, the researcher used multiple linear regression analysis.

- ❖ **Hypothesis 1:** A significant linear relationship of thinking style and decision making ability occurs with academic adjustment of higher secondary students

Regression analysis was carried out using the independent variable of thinking style, decision making ability and the dependent variable of academic adjustment. The result of the regression analysis is presented in Table 1.

Table.1 Model Summary of Regression

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
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1	0.641 ^a	0.411	0.399	10.7938
a. Predictors: (Constant), TS TOTAL, DMA TOTAL				
b. Dependent Variable: Academic ad				

From the above Table.1, R indicated the correlation between the observed and the predicted value of the dependent variable Academic adjustment which is 0.641. R-Square indicates the proportion of the variance in the dependent variable namely academic adjustment that is explained by the combined effect of the independent variables – thinking style and decision making ability. The adjusted R Square value is 0.411. It implies that 41.1% of variance in academic adjustment can be explained by the independent variables thinking style and decision making ability

Table.2 ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7899.849	2	3949.925	33.903	0.000 ^b
	Residual	11301.141	97	116.507		P < 0.001
	Total	19200.990	99			S
a. Dependent Variable: Academic ad						
b. Predictors: (Constant), TS TOTAL, DMA TOTAL						

In the above Table.2, the sum of squares associated with the 2 variance regression, residuals and the total. The total variance is partitioned into regression (7899.849) and the residuals (11301.141) which indicate the variance explained by the independent variable and the variance not explained by the independent variables. The F value is statistically significant at 0.01 level. It suggests a linear relationship among the variables. The stepwise multiple regression revealed a significant model for predicting stress coping strategies, $F = 33.903$, $p < 0.01$, $R \text{ Square} = .411$. There exists enough evidence to conclude that, as the regression is not zero which implied that the independent variables namely thinking style and decision making ability predict on dependent variable academic adjustment.

Table.3 Coefficient

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	(constant)	32.486	12.688		2.560	.012
	DMA (X1)	.220	.067	.259	3.258	.002
	TS (X2)	.318	.047	.540	6.799	.000

From Table.3, at 1% level of significance, there is enough evidence to conclude that the slope of the population regression line is not zero and hence, that decision making and thinking style ability are useful predictors of academic adjustment of higher secondary students. The F value of regression is significant at 0.05 level and 't' values for thinking style and decision making ability are also significant at 0.01 level indicating there is significant influence on the academic adjustment of higher secondary students. However, thinking style and decision making ability has positive influence

The multiple regression equation representing the relation between the independent and dependent variable is
 $Y = 32.486 + 0.220 X_1 + 0.318 X_2$

Where,

Y – Academic adjustment

X1 – Decision making ability

X2 – Thinking style

Hence, the null hypothesis is rejected and it is conclude that there is a significant effect in decision making ability and thinking style on academic adjustment of higher secondary students.

Finding of the study

There is a positive significant relationship of decision making ability and thinking style on academic adjustment of higher secondary students.

Educational Implications

- **Curriculum Design:** Schools can integrate activities and programs that enhance decision-making skills and promote adaptive thinking styles, such as problem-solving exercises, case studies, and critical thinking tasks.
- **Teacher Training:** Educators should be trained to recognize and nurture different thinking styles and decision-making abilities to better support students' academic adjustment.
- **Guidance and Counselling:** School counsellors can organize workshops and sessions to develop students' decision-making strategies, improving their ability to cope with academic demands.
- **Skill Development Programs:** Implementing life skills and cognitive development programs in the school curriculum can foster better decision-making abilities and thinking styles, leading to smoother academic transitions.
- **Personalized Support:** Teachers and parents can provide tailored support to students, addressing their individual needs based on their preferred thinking styles and encouraging sound decision-making practices.
- **Policy Recommendations:** Policymakers should prioritize integrating cognitive and emotional development strategies into educational frameworks to improve students' adaptability and overall academic success.

By addressing these areas, educators and institutions can create a supportive learning environment that promotes academic resilience and better adjustment for higher secondary students.

Delimitations of the study

The scope of this study is limited to the following:

1. The study was conducted exclusively among higher secondary students.
2. The geographical focus of the study is restricted to the Chennai district.
3. Only specific factors, namely decision-making ability and thinking styles, were considered in relation to student's academic adjustment.
4. The study does not include students from other districts, educational levels, or regions.
5. The findings are based on the responses of participants within the chosen area and may not be generalized to other populations or contexts without further research.

Conclusion

This study aimed to investigate the impact of thinking style and decision making ability on academic adjustment of higher secondary students. The findings indicate that there is a positive significant relationship on thinking style and decision making ability on academic adjustment of higher secondary students.

Reference

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