

DECISION MAKING STYLE AND ACHIEVEMENT IN MATHEMATICS AMONG HIGHER SECONDARY SCHOOL STUDENTS

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Abstract

This investigation was done to see if there is any significant relationship between decision making style and achievement in mathematics among higher secondary students in Virudhunagar district. The sample comprises of 300 higher secondary students acquired from ten higher secondary schools in Virudhunagar district through simple random sampling technique. The collected data is analysed statistically in SPSS software. The findings reveal that the level of decision making style and achievement in mathematics among higher secondary students are moderate.

Keywords: *Decision Making Style, Achievement in Mathematics Higher Secondary Students Descriptive, Survey Method and SPSS.*

Introduction

Decision-making can be regarded as the cognitive process resulting in the selection of a belief or a course of action amid several alternative possibilities. Every decision-making process produces a final choice that may or may not prompt action. Decision-making is the study of identifying and choosing alternatives based on the values and prespects of the decision maker. Decision-making is one of the central tasks of management and is a huge part of any procedure of implementation.

Mathematics is known as an exact science because of its precision. There is no place for subjectivity and personal equation in Mathematics. Mathematically obtained results are either correct or incorrect not allowing any stand to be taken in between. There should be no difference of opinion between the teacher and the student regarding the solution of the problem. The student can verify his result by reverse process. It is possible for the student to remove his difficulties by self- effort and to be sure of the removal. The success of personal effort is a source of pleasure for him. He develops faith in self-support which is the secret of success in life. So the teacher of Mathematics should develop accuracy among the students in solving problems.

The successful reading of a goal used, particularly, to refer to real-life success and when evaluating a person's life. Achievement signifies accomplishment or gain or a performance carried out successfully by an Seperate or group on the fulfilment of a task whether it is academic, manual, personal or social. Thus, the achievement means all those behavioral changes, which take place in the individual as a result of learning experience of various kinds. Dictionary of Education defines the Academic achievement as "The knowledge attained and skill developed in the school subjects which are usually determined by test scores or marks allocated by the teacher or both." The school achievement scores are the best predictors of future success of the students.

Significance of the Study

Our decision is final is an utterance we hear a lot. And the truth is to move advanced we have to make resolutions and stick with them. But it is of utmost consequence to look at each question clearly that is associated with the decision we are about to make and determine categorically whether it is the right one. Coming up with the correct answer can be hard, even uncomfortable, but it is essential. What we were reminded by this situation were that we should frequently be visualizing the life we really want. What does it look like, what does it feel like. This will help us to make decisions in align with our dreams. We should stop and look into the choices we make, evaluating them to regulate they fit with our chosen path.

Mathematics must be looked upon in a positive light to reduce Mathematics anxiety. Therefore teachers must re-examine traditional teaching methods which often do not match students' learning styles and skills needed in the society. Lessons must be extended in a variety of ways. For case, a new concept can be taught through play acting, cooperative groups, visual aids, hands on tasks and technology. As a result young children see math as fun and they will enjoy it, and the joy of Mathematics could be left with them throughout the rest of their lives. Many external factors which affect the achievement of students, family acceptance is the important factors which affect achievement of the students. In the academic setting, many studies have shown that there is a positive and significant correlation between self-efficacy, anxiety, and stressed with achievement in Mathematics. Hence the researcher wants to know the 'Decision-Making Style and Achievement in Mathematics among Higher Secondary School Students'. Hence the investigators conduct of the present study.

Objectives of the Study

- To find out the level of Decision-Making style of higher secondary students.
- To find out the level of achievement in Mathematics of higher secondary students.

Null Hypothesis

1. There is no significant difference in Decision-Making style of higher secondary students with respect to gender.
2. There is no significant difference in achievement in Mathematics of higher secondary students with respect to gender.
3. There is no relationship between achievement in Mathematics and achievement in Mathematics of the higher secondary students.

Delimitations

1. The study deals with higher secondary students studying maths group in Virudhunagar district.
2. The study deals with standard XI and XII students only.

Methodology

A descriptive survey method was adopted by the researcher to conduct this study.

Population for the Study

The population for the present study is the higher secondary students of Virudhunagar District.

Sample for the Study

The sample size is 300 students from 10 higher secondary students in Virudhunagar district.

Tool

- Decision making style scale prepared and validated by investigator & guide (2022).
- Achievement in Mathematics refers to the scores achieved by the higher secondary school students in Mathematics in the quarterly examination

Statistical Techniques

Percentage, Mean, standard Deviation, 't' test and correlation.

Analysis of Data**Objective: 1**

To find out the level of decision making style of higher secondary students.

Table 1 Level of Decision Making Style of Higher Secondary Students

Low		Moderate		High	
Count	%	Count	%	Count	%
71	27.3	196	65.3	33	11.0

It is inferred from the above table that, 27.3% of higher secondary students have low, 65.3% of them have moderate and 11.0% of them have high level of Decision making style.

Objective: 2

To find out the level of Achievement in Mathematics of higher secondary students.

Table 2 Level of Achievement in Mathematics of Higher Secondary Students

Low		Moderate		High	
Count	%	Count	%	Count	%
35	11.7	195	65.0	70	23.3

It is inferred from the above table that, 11.7% of higher secondary students have low, 65.0% of them have moderate and 23.3% of them have high level of Achievement in Mathematics.

Null Hypothesis: 1

There is no significant difference between male and female higher secondary students in their Decision making style.

Table 3 Difference between Male and Female Higher Secondary Students in their Decision Making Style

Gender	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Male	135	78.40	8.270	2.071	S
Female	165	80.50	9.080		

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that the calculated 't' value (2.071) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is a significant difference between male and female higher secondary students in their Decision making style.

Null Hypothesis 2

There is no significant difference between male and female higher secondary students in their achievement in Mathematics.

Table 4 Difference between Male and Female Higher Secondary Students in their Achievement in Mathematics

Gender	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Male	146	77.377	11.5545	2.647	S
Female	154	73.844	11.5567		

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that the calculated 't' value (2.647) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is a significant difference between male and female higher secondary students in their achievement in Mathematics.

Null Hypothesis 3

There is no significant relationship between Decision making style and achievement in Mathematics of higher secondary students.

Table 5 Relationship between Decision Making Style and Achievement in Mathematics of Higher Secondary Students

Category	N	df	Table Value	'r' Value	Remarks	Level
Decision making style Vs Achievement in Mathematics	300	298	0.113	0.015	NS	A weak uphill (positive) linear Relationship

(At 0.01 level of significance the table value of 'r' is 0.113)

The above Table 4.23 impels that calculated 'r' value is lesser than the critical values of 0.113 at 0.05 level of significance. Hence, the null hypothesis is accepted and concluded that There is no significant relationship between Decision making style and achievement in Mathematics of higher secondary students

Major Findings

Descriptive Analysis

- 27.3% of higher secondary students have low, 33% of them have moderate and 11.0% of them have high level of Decision making style.
- 11.7% of higher secondary students have low, 65.0% of them have moderate and 23.3% of them have high level of Achievement in Mathematics.

Inferential Analysis

- There is a significant difference between male and female higher secondary students in their Decision making style.
- There is a significant difference between male and female higher secondary students in their achievement in Mathematics.
- There is no significant relationship between Decision making style and achievement in Mathematics of higher secondary students.

Interpretation

- The finding let out that there is a significant difference between male and female higher secondary students in their Decision making style. Female higher secondary students are better than male higher secondary students in their Decision making style. Male higher secondary students tend to have less confident math attitudes: They have higher levels of math desire and lower levels of confidence in their math skills.
- The current study reveals that there is significant variations between male and female higher secondary students in their achievement in Mathematics. Male is better than female achievement in Mathematics. This is may be due to fact that Female students overcome male students in a range of indicators of academic recital. For instance, female students earn higher score than male students The female advantage in grades is especially pronounced for languages and seems to increase with students' age.

Suggestions of the study

The following are the suggestions for further research studies.

- Replica of the present study with other districts in Tamil Nādu.
- Replica of the present study with other variables
- Replica of the present study of attitude in diploma teachers' trainees, nursing, engineers.

Recommendations of the Study

- The study of Decision Making Behaviour of higher secondary students should be part of syllabus.
- Co-curricular and extracurricular activities should be encouraged to promote awareness of Decision Making Behaviour.
- Teachers should provide opportunities for their students to become aware of Decision Making Behaviour.

Conclusion

The present investigation is aimed to measure the Decision making style and achievement in Mathematics among higher secondary students. If successful execution depends on the understanding and receiving of others, it is to your advantage to participate them in the decision early on and use a Team Behaviour, even if you believe you earlier know the best decision. Otherwise, you might save time during the decision-making process, but will pay the price during execution. The more others are influenced by the decision, the more they should be involved. A good consensus process, where team members set their egos and distinctive needs aside and aimed on the purpose, will result in a higher quality resolution. And as a conclusion of the process, team members will improve a deeper understanding of the issues and great engage to the decision, ensuring smoother and faster execution. The finding of study reveals that Decision making style and achievement in Mathematics is average. Recommendation suggest by the research is helpful to increase achievement in Mathematics.

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