

RESEARCH AND REFLECTIONS ON EDUCATION

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➤ **Parental Involvement and Interpersonal Intelligence**

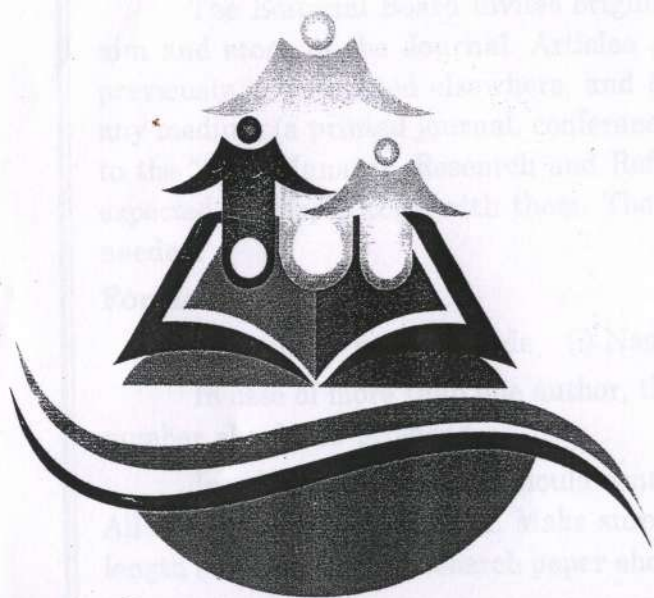
➤ **Examination Anxiety and Academic Achievement**

➤ **Scientific Reasoning of Higher Secondary School Students**

➤ **Utilization of Library Information Resources among the Faculty Members and Students**

➤ **A Study on Lateral Thinking and Academic Achievement**

➤ **Risk-Taking Behaviour and Achievement in Mathematics**



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Principal

St. Xavier's College of Education
(Autonomous)
Palayamkottai - 627 002



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RESEARCH AND REFLECTIONS ON EDUCATION

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GUIDELINES FOR AUTHORS

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RISK-TAKING BEHAVIOUR AND ACHIEVEMENT IN MATHEMATICS OF IX STANDARD STUDENTS

Research
Paper

ABSTRACT

The present study deals with the relationship between risk-taking behaviour and achievement in mathematics of IX standard students. The survey method is used for the study. The sample consists of 300 IX standard students from 10 high and higher secondary schools in Tirunelveli district. The study reveals that there is a significant difference between male and female IX standard students in their risk-taking behaviour and achievement in mathematics.

INTRODUCTION

Adolescence is a period of rapid change. In a span of just a few years, teens transition takes place dramatically in almost all realms of their lives. Physically, they grow in leaps and bounds and start to appear like mature adults. Cognitively, their thinking becomes more sophisticated. Socially, relationships are renegotiated, and teens develop the capacity to form deep intimate relationships with others. At the same time, the roles that they occupy in society also change. Partly because teens start to look more mature, people surrounding them sometimes begin to treat them like adults, giving them mature responsibilities and subjecting them to adult expectations.

Research shows that young people can be affected by risk and protective factors. Even if a young person is in a vulnerable group, the right balance of protective factors can reduce the likelihood of harmful risk-taking behaviour, and reduce alcohol and substance misuse.

The consequence of risk taking by adolescents puts all of society at risk through lessened potential for everyone's collective future. This research was done on the resources available. The knowledge gained will create a more hopeful future for all.

SIGNIFICANCE OF THE STUDY

Risky acts would trigger a pleasurable excitement in the risk taker, but might also have profoundly benefited his or her group not only because the group would reap the rewards of the risk taker's discoveries, but because a single person took the experiment upon himself or herself, saving the rest from the potential danger involved in the risk. They risk their lives sometimes for fun, sometimes to broaden the entire species' horizons. This positive reinforcement is so powerful that, if it continues, will virtually guarantee the

continuation of the genetic characteristics that predispose individuals to taking risks. Healthy risk-taking is a positive tool in an adolescent's life for discovering, developing, and consolidating his or her identity. Adolescent risk-taking only becomes negative when the risks are dangerous. Healthy risks – often understood as challenges – can turn unhealthy risks in a more positive direction, or prevent them from ever taking place to begin with. High-risk behaviours are those that can have adverse effects on the overall development and well-being of youths, or that might prevent them from future successes and development. Students are the future pillars of the world. They are expected to perform multidimensional roles. They should possess the qualities needed for the effective performance of the roles. Education should spell out the kinds of desirable changes needed by the society and now these changes are to be brought about among the students. For this, education should try to study and understand various problems of the society in specific areas from time to time and should become an integral part of social development.

In order to achieve the goal, the students have to meet many challenges in their life. For meeting the challenges, the adolescents will have to join hands with each other. To face social problems students should have risk-taking behaviour. So the investigator wants to study the risk-taking behaviour and achievement in mathematics of IX standard students.

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OBJECTIVES

The present study has the following objectives:

1. To find out the level of risk-taking behaviour and achievement in mathematics of IX standard students.
2. To find out significant difference if any in the risk-taking behaviour and achievement in mathematics of IX standard students.
3. To find out significant relationship if any, between risk-taking behaviour and achievement in mathematics of IX standard students.

HYPOTHESES

The following hypotheses were formulated for the present study:

1. There is significant difference between male and female IX standard students in their risk-taking behaviour.
2. There is significant difference between male and female IX standard students in their achievement in mathematics.
3. There is no significant relationship between risk-taking behaviour and achievement in mathematics of IX standard students.

METHOD

The investigator adopted the survey method to find out the relationship between risk-taking behaviour and achievement in mathematics of IX standard students.

POPULATION

The population for the present study consisted of the students of IX standard from high and higher secondary schools of Sankarankoil Taluk in Tirunelveli district.

SAMPLE

The investigator used the simple random sampling technique for selecting the sample from the population. The sample consisted of 300 IX standard students from 10 schools Sankarankovil Taluk in Tirunelveli district.

TOOLS USED

The investigator used the following tools for data collection:

1. The investigator adopted the Risk-taking behaviour tool that was prepared and validated by Anbalagan and Annaraja.

*Research
Paper*

2. The investigator prepared a test to measure achievement in mathematics of IX standard students.

STATISTICS

Mean, standard deviation, correlation, t- test and ANOVA were used to analyse the data.

ANALYSIS OF DATA

1. Level of risk - taking behaviour of IX standard students.

Table 1

LEVEL OF RISK-TAKING BEHAVIOUR OF IX STANDARD STUDENTS

Variable	Low		Average		High	
	Count	%	Count	%	Count	%
Risk-taking behaviour	50	16.67	179	59.67	71	23.67

It is seen from the above table that 16.67% of IX standard students have low, 59.67% have average and 23.67% have high level of risk-taking behaviour.

Level of achievement in mathematics of IX standard students.

Table 2

LEVEL OF ACHIEVEMENT IN MATHEMATICS OF IX STANDARD STUDENTS

Variable	Low		Average		High	
	Count	%	Count	%	Count	%
Achievement in Mathematics	59	19.67	177	59.00	64	21.33

It is seen from the above table that 19.67% of the sample have low, 59.00% have average and 21.33% have high level of achievement in mathematics.

Null Hypothesis 1

There is no significant difference between male and female IX standard students in their risk-taking behaviour.

Table 3
DIFFERENCE BETWEEN MALE
AND FEMALE IX STANDARD STUDENTS
IN THEIR RISK-TAKING BEHAVIOUR

Gender	Count	Mean	S.D	Calculated 't' value	Remark
Male	151	67.14	4.919	4.82	S
Female	149	64.58	4.240		

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

It is inferred from the above table that there is significant difference between male and female students in their risk-taking behaviour. While comparing the mean scores of the two groups the male students (67.14) are slightly better than the female students (64.58) in their risk-taking behaviour.

Null Hypothesis 2

There is no significant difference between male and female IX standard students in their achievement in mathematics.

Table 4
DIFFERENCE BETWEEN MALE
AND FEMALE IX STANDARD STUDENTS
IN THEIR ACHIEVEMENT IN MATHEMATICS

Gender	Count	Mean	S.D	Calculated 't' value	Remark
Male	151	58.91	15.751	2.170	S
Female	149	62.90	16.066		

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

It is inferred from the above table that there is significant difference between male and female IX standard students in their achievement in mathematics. While comparing the mean scores of the two groups the female students (62.90) are better than the male students (58.91) in their achievement in mathematics.

Null Hypothesis 3

There is no significant relationship between risk-taking behaviour and achievement in mathematics of IX standard students.

Table 5
RELATIONSHIP BETWEEN RISK - TAKING
BEHAVIOUR AND ACHIEVEMENT IN
MATHEMATICS OF IX STANDARD
STUDENTS

Variable	Count	df	Calculated 'r' value	Table value at 5% level	Remarks
Risk - taking behaviour and achievement	300	298	0.046284	0.113	NS

It is inferred from the above table that there is no significant relationship between risk - taking behaviour and achievement in mathematics of IX standard students.

FINDINGS

1. It is revealed that 23.6.7% of the IX standard students have high level of risk - taking behaviour.
2. It is revealed that 21.3.3% of the IX standard students have high level of achievement in mathematics
3. There is significant difference between male and female students in their risk-taking behaviour. The male students are better than the female students in their risk-taking behaviour.
4. There is significant difference between male and female IX standard students in their achievement in mathematics. The female students are better than the male students in their achievement in mathematics.
5. There is no significant relationship between risk-taking behaviour and achievement in mathematics of IX standard students.

CONCLUSION

Risk-taking behaviour has been the subject of much speculation, from Sigmund Freud's belief that dare-devil stunts arise out of humans' innate death drive, as some modern psychologists' view that dangerous activities can make us feel more alive. In general, we think of risky

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