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# METACOGNITION AND RISK TAKING BEHAVIOUR OF HIGH SCHOOL STUDENTS

**By**

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**Abstract**

*The present study examined the metacognition and risk taking behaviour of high school students. The investigator adopted survey method for the present study. The tools used for the study are Risk taking behaviour scale (2008) by Annaraja and Anbalagan and Metacognition scale (2020) constructed and validated by the investigator. Data were collected from 300 high school students of different schools in Kanyakumari District. The statistical techniques used for the present study are 't'-test and correlation analysis. Results showed that there is significant relationship between metacognition and risk taking behaviour of high school students. Overall, this research contributes the society by providing meaningful implications to the parents and teachers.*

***Keywords**: metacognition, risk taking behaviour, high school students.*

## Introduction

Metacognition means to the ability to think about, understand and manage one's learning. It includes knowledge about learning and about oneself as a learner, and the skills of monitoring and regulating one's own cognitive processes. Metacognitive awareness permits learners to make self-reflection about their own cognition processes and enables them to observe, monitor, evaluate, and regulate their own thought processes. Risk taking in the sense means the willingness to make mistakes, or tackle extremely challenging problems without obvious solutions, such that one's personal growth, integrity or accomplishments can be enhanced. Within the learning environment it requires a willingness to think deeply about a subject and share that thinking with their peers, listen to their criticisms and then build on those practices toward a solution.

## Significance of the study

The fundamental goal of education is to equip students with the metacognitive knowledge and skills necessary to think critically, solve complex problems, and succeed in the 21st century society. Measurement of such knowledge and skills is important to tracking students' development and assessing the effectiveness of educational policies and practices. Risk taking behaviour is an important aspect and essential part of one's life. To get success in life, students want to go beyond their capability and involve in those work in which success and results aren't sure and during this way they take risk. The secondary stage is the age of competition, in which students are busy to keep themselves in a leading position and this competitive spirit bounds them to take risks. It is understandable now that a risk-taker is

more successful and position holder within the society. Therefore, a need is felt to investigate the metacognition and risk taking behaviour of high school students.

**Title of the study**

The problem is entitled as metacognition and risk taking behaviour of high school students.

**Objectives of the study**

1. To find out whether there is any significant difference in metacognition of high school students with regard to gender.
2. To find out whether there is any significant difference in metacognition of high school students with regard to locality of the institution.
3. To find out whether there is any significant difference in risk taking behaviour of high school students with regard to gender.
4. To find out whether there is any significant difference in risk taking behaviour of high school students with regard to locality of the institution.
5. To find out whether there is any significant relationship between metacognition and risk taking behavior of high school students.

**Hypotheses of the study**

1. There is no significant difference in metacognition of high school students with regard to gender.
2. There is no significant difference in metacognition of high school students with regard to locality of the institution.
3. There is no significant difference in risk taking behaviour of high school students with regard to gender.
4. There is no significant difference in risk taking behaviour of high school students with regard to locality of the institution.
5. There is no significant relationship between metacognition and risk taking behaviour of high school students.

**Methodology**

The investigator has adopted survey method for the present study. The tools used for the study are Risk taking behaviour scale, a standardised tool constructed and standardized by Anbalagan and Annaraja (2008). The content and concurrent validity of the tool was established. The reliability of the tool was established using test-retest method. Metacognition scale (2020) was constructed and validated by the investigator. Validity of the tool was established using item vs. whole correlation method. The reliability of the tool was established using Split- Half method. The reliability coefficient of the tool was found to be 0.638. Data were collected using stratified random sampling technique from 300 high school students of different schools in Kanyakumari District. The statistical techniques used for the present study are 't'-test and correlation analysis.

**Analysis of the data**

**Ho:1** There is no significant difference in metacognition of high school students with regard to gender.

**Table 1. Difference in metacognition of high school students with regard to gender**

| Variable | Gender | N | Mean | SD | Calculated 't' value | Remarks at 5% level |
|---|---|---|---|---|---|---|
| Metacognition | Male | 178 | 63.81 | 6.974 | 0.699 | NS |
| | Female | 122 | 64.33 | 5.007 | | |

NS- Not Significant

(The table value of ' t ' at 5 % level of significance is 1.96 )

It is inferred from the above table that the calculated ' t ' value is less than the table value at 5 % level of significance. Hence there is no significance difference in metacognition of high school students with regard to gender and the null hypothesis is accepted.

**Ho:2** There is no significant difference in metacognition of high school students with regard to locality of the institution.

**Table 2. Difference in metacognition of high school students with regard to locality of the institution**

| Variable | Locality of the Institution | N | Mean | SD | Calculated 't' value | Remarks at 5% level |
|---|---|---|---|---|---|---|
| Metacognition | Urban | 199 | 62.53 | 5.239 | 3.208 | S |
| | Rural | 101 | 64.78 | 6.582 | | |

S – Significant

(The table value of ' t ' at 5 % level of significance is 1.96 )

It is inferred from the above table that the calculated ' t ' value is greater than the table value at 5 % level of significance. Hence there is significance difference in metacognition of high school students with regard to locality of the institution and the null hypothesis is rejected. While comparing the mean scores, students of rural area possess high metacognition than their counterparts.

**Ho:3** There is no significant difference in risk taking behaviour of high school students with regard to gender.

**Table 3. Difference in risk taking behaviour of high school students with regard to gender**

| Variable | Gender | N | Mean | SD | Calculated 't' value | Remarks at 5% level |
|---|---|---|---|---|---|---|
| Risk taking behaviour | Male | 178 | 53.07 | 3.545 | 0.304 | NS |
| | Female | 122 | 53.20 | 3.344 | | |

NS – Not Significant

(The table value of ' t ' at 5 % level of significance is 1.96 )

It is inferred from the above table that the calculated‘ t ‘ value is less than the table value at 5% level of significance. Hence there is no significance difference in risk taking behaviour of high school students with regard to gender and the null hypothesis is accepted.

**Ho:4** There is no significant difference in risk taking behaviour of high school students with regard to locality of the institution.

**Table 4. Difference in risk taking behaviour of high school students with regard to locality of the institution**

| Variable | Locality of the Institution | N | Mean | SD | Calculated ‘t ‘ value | Remarks at 5% level |
|---|---|---|---|---|---|---|
| Risk taking behaviour | Urban | 199 | 53.17 | 3.350 | 0.333 | NS |
| | Rural | 101 | 53.03 | 3.681 | | |

NS – Not Significant
(The table value of ‘ t ’ at 5 % level of significance is 1.96 )

It is inferred from the above table that the calculated‘ t’ value is less than the table value at 5 % level of significance. Hence there is no significance difference in risk taking behaviour of high school students with regard to locality of the institution and the null hypothesis is accepted.

**Ho:5** There is no significant relationship between metacognition and risk taking behaviour of high school students.

**Table 5. Relationship between metacognition and risk taking behaviour of high school students**

| Variables | N | Calculated ‘ r’ Value | Remarks at 5% level |
|---|---|---|---|
| Metacognition & Risk Taking Behaviour | 300 | 0.170 | S |

S - Significant
(The table value of ‘r’ at 5% level of significance is 0.113)

It is inferred from the above table that the calculated ‘r’ value is greater than the table value at 5% level of significance. Hence there is significant relationship between metacognition and risk taking behaviour of high school students and the null hypothesis is rejected.

**Findings and Interpretations**

1. No significant difference is revealed between male and female students in the metacognition. This may due to the fact that both the male and female students have awareness of how they learn, an

evaluation of their learning needs, generating strategies to meet these needs and then implementing the strategies thus showing no difference.

2. Significant difference is revealed between students of urban and rural area in their metacognition. While comparing the mean scores, students of rural area possess high metacognition than their counterparts. This may due to the fact that nowadays students of rural area understand the cognitive tasks and the nature of what is required to complete them. This can range from information that helps students to assess their own abilities and intelligences to reflections on specific learning processes and to use in different situations.

3. No significance difference is revealed between male and female students in their risk taking behaviour. This may be due to the fact most of the schools are providing stress related programmes to the students in order to cope up with their risk taking.

4. No significance difference is revealed between students of urban and rural area in their risk taking behaviour. This may be due to the fact students of both the area are following the unified syllabus as prescribed by the Government and undergo same pattern of examination thus prevailing no difference.

5. Significant relationship is revealed between metacognition and risk taking behaviour of high school students. This may be due to the fact that since youth and adolescence is a time for experiencing and personal selections and personal identity is shaped in this period, they are more vulnerable to drug abuse and dangerous behaviors. For this reason, recognizing effective factors in preventing and rescuing youths from dangerous drug abuse is of great importance and one of the contributing factor is metacognition.

**Educational Implications**

Based on the light of findings the investigator has made the following implications for the study:

- Students of rural area possess high metacognition than their counterparts. In order to improve the metacognition of the students of urban area, teachers should help the learners to adopt appropriate academic goals, and been courage to use metacognitive strategies to enhance their learning attainments.
- The study shows that gender do not influence the metacognitive ability of students. So whatever needed are innovative teaching methods and learning activities that arouse and develop the metacognitive level of students.

- In order to build metacognition, reflective writing helps students to make connections between what they are learning in their homework/class content and with how they are integrating the content into their current learning structures.

- Teachers should know the risk taking behaviour of their pupil and provide all the facilities for the overall development of the pupil accordingly.

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