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# Effect of Sex & Area on the Self-regulation Inventory for the students of 11 to 13 years

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**Abstract:**
*The major aim of the present study has been taken by a tool of a Self-regulation Inventory and its standardization on the students of 11 to 13 years studying in Upper Primary Schools of Gujarat State. While the process of data collection, it happened to come in contact of many students and teachers. Much knowledge was attained from experts. Norms were established according to each area, sex, type of family and age. If the present study proves to be helpful to teachers, students and society and persons related to study field, the humble effort of the investigator considered as significant.*

**Keywords:** *Education, Self-regulation Inventory*

## 1. Introduction

In the modern age, along with formal education, deontological education is equally important for students. Formal education is provided by classroom teaching in schools and colleges but it is also essential to know how child behave at home, among neighbours, with friends, society, and guests. It is also important to know whether the child is aware of himself and he can take right decisions himself or not. Therefore, if Self-regulation among students is identified, proper guidance can be provided in schools and good citizens will be available to our country.

The following points show the importance of the present study.

- The Self-regulation Inventory will be useful to examine Self-regulation of students in primary schools.
- Students' Self-regulation will be measured and suitable guidance will be provided to them.
- A proper guidance programme will be planned after measuring Self-regulation of students.
- The Self-regulation Inventory will be useful to increase educational achievement of students.
- Obstructive factors in cultivating self-regulation can be found out and removed by proper remedies.
- It will be useful to study relation between self-regulation and intelligence.
- School administration, Principals, teachers etc can organize camps and programmes for development of students.
- Present study will be useful to future students to get necessary directions.
- Various programmes for developing self-regulation can be suggested.

## 2. Statement of the problem

In the present study, a Self-regulation Inventory was constructed and standardized for students of 11 to 13 years age group, studying in Gujarati medium Upper Primary Schools of Gujarat State. The Self-regulation Inventory was constructed considering six components of Self-regulation according to guidance from experts. Effect of four variables such as sex, area, age and type of family was examined in Self-regulation and norms were established.

## 3. Definitions of terms

The terms used in the problem were defined as below.

### *3.1 Students of 11 to 13 years*

Students born after the year 1997 and before 2000

### *3.2 Self-regulation*

"Self-regulation is individual, behavioral and interaction with environment. Purpose of Self-regulation is to plan thought, feelings and actions properly and to achieve individual goals" "Self-regulation indicates accurate path for a goal and provides suitable guidance to behave."

## 4. Objectives of the study

1. To examine effect of sex on Self-regulation Inventory for students of 11 to 13 years.
2. To examine effect of area on Self-regulation Inventory for students of 11 to 13 years

## 5. Variables under the study

In the present study, sex & area were selected as independent variables; where as a self-constructed Self-regulation Inventory was constructed as dependent variable. Gujarati medium was selected as controlled variable. Detail is mentioned in table:1

**Table :1 Variables under the study**

| No. | Variable | Type of variable | Level | Name of levels | Tool for measurement |
|---|---|---|---|---|---|
| 1 | **Sex** | Independent variable | 2 | 1. Boys<br>2. Girls | Primary information |
| 2 | **Area** | Independent variable | 2 | 1. Rural<br>2. Urban | Primary information |
| 3 | **Self-regulation Inventory** | Dependent variable | --- | Sub variables:<br>1. Education<br>2. Religion<br>3. Physical<br>4. Social<br>5. Economical<br>6. Mental | A self-constructed Self-regulation Inventory |
| 4 | **Medium** | Controlled variable | --- | Gujarati | --- |

## 6. Hypotheses of the study

**$Ho_1$:** There is no significant difference between mean scores of boys and girls on Self-regulation Inventory.

**$Ho_2$**: There is no significant difference between mean scores of students of urban area and rural area on Self-regulation Inventory.

## 7. Population of the study

After constructing the Self-regulation Inventory, its effectiveness was to be examined on students of 11 years, 12 years and 13 years studying in Upper Primary schools, so all students of 11 years, 12 years and 13 years studying in Gujarati medium Upper Primary schools in Gujarat State had become population of the present study.

## 8. Delimitations of the study

The present study was delimited as below.

1. Students of 11 years, 12 years and 13 years studying in Gujarati medium Government recognized Upper Primary schools from urban area and rural area of Gujarat State were selected.
2. Four variables such as sex, area, age and type of family were studied under the present study.
3. Self-regulation Inventory was constructed considering six components such as education, religion, physical, social, economical and mental as suggested by experts.

**9. Limitations of the study**

The present study was limited as below.

1. Present study was limited to students of Gujarati medium Upper Primary schools of Gujarat State.
2. Area of Gujarat State was divided into five zones and two districts were selected from each zone. Two schools from urban area and two, from rural area were randomly included from each selected district in the present study. In this way, total 60 students were included from 02 selected schools in sample of the present study.
3. Data analysis and interpretation was made based on responses of students on Self-regulation Inventory.

**10. Critical review of previous studies**

Chandrakant Bhogayata, (A study of relation between creativity, concept and controlling force, 1986), Thakar Paresh S., (Construction and standardization of Adjustment Inventory for Secondary Schools students, 2012), Thakkar Jagruti S., (Construction and standardization of Emotional Intelligence Test for the students of Secondary Schools of Gujarat State, 2008), Samir M. Patel, (Construction and standardization of Moral Courage Scale for the students of Secondary schools of Gujarat State, 2010), Khushbu P. Patel, (Construction and standardization of Emotional Intelligence Scale for the students of Secondary schools of Gujarat State, 2010), Sailendra Gupta, (Construction and standardization of Self-regulation Inventory for Secondary School students, 2008), Kajal A. S., (An investigation of contract independence from Personality and Social Intelligence, 2002), Oza D. J., (An inquiry into the factors influencing the learning strategies of IX standard students, 1995), Bhavin D. Shah, (Construction and standardization of Religious Intelligence Scale for B. Ed. Trainees of Hemchandracharya North Gujarat University, Patan, 2007), Pankil K. Patel, (A study of effect of anxiety of students of std. 9 of Mehsana District on their self-concept, adjustment and educational achievement, 2007-08), Padaliya G. V., (A study of self-concept and Learning readiness of learners of Secondary schools from rural area of Rajkot Taluka, 1992), Dhokiya M. P., (A study of IQ, Educational achievement and self-expression of Secondary School students having introvert an extravert personality, 1998) and Vaishnav V. B., (A study of loneliness of Secondary School students in context to individual, social and psychological variables, 1993) had undertaken studies in Gujarat State.

In India, past studies were undertaken by Thakkar A. (A study of adjustment problems of adolescence, 1964), R. P. Gupta, (A study of relation between gender and creativity, 1975), R. L. Bhardwaj, (A study of professional interest and creativity, 1978), V. Madu, (A study of relation between Personality Traits, Intelligence level and Creativity, 1980), I. Pandit, (A study of the Psychological Needs and Self-concept of adolescent and their bearing in adjustment, 1985), S. Sinh, (A study of School Climate, Leadership behavior and Moral development of Heads of Elementary and the Secondary Schools, 1985), D. V. Sinh, (Development of Moral Judgment among adolescents, 1993), Shrivastava A., (A study of learning styles of Secondary Schools students with Scientific Attitude and their achievement in Science, 2002), S. Jaykumar R. Mutthu Manikam, (A study of Social Adjustment of Higher Secondary School students, 2010), Nita Mahajan & Kumari Dipika Gupta, (Emotional Intelligence: A holistic approach to life success: A comparative study of E. I. in adolescent girls and boys, 2006), Rajni dhigara, Nirmala Thakur, Sarika Mangas, (Establishing connectivity of E.Q. with social adjustment; A study of Kashmiri migrant women, (2005) etc.

In foreign country, studies were conducted by A. Blassi, (Developmental approach to responsibility training, 1971), Kristin L. Moilanen & Daniel S. Shaw, (Self-regulation in Early Adolescence: Relation with Mother-Son Relationship Quality and Maternal Regulatory Support and Antagonism, 2009), John Nietfeld and Anton Bosma, (Examining the Self-regulation of impulsive and reflective response styles on academic tasks, 2002) and Albert K. Lee Apu, Michal T. Lee Apu, Agence W. Lee Apu, (The case for Emotional Literacy, the influence of Emotional Intelligence on Problem Behaviors in Malaysian Secondary School students, 2003).

## 11. Population and sample of the study

### *11.1 Population*

After constructing the Self-regulation Inventory, its effectiveness was to be examined on students of 11 years, 12 years and 13 years studying in Upper Primary schools, so all students of 11 years, 12 years and 13 years studying in Gujarati medium Upper Primary schools in Gujarat State had become population of the present study.

### *11.2 Sample*

From each of the zones two districts were selected as sample through lottery method. Thus, total 1 district was included in the sample. One school from rural area and one from urban area were selected. The test was administered on all boys and girls of upper primary schools of the age of 11 years, 12 years and 13 years, who were present on that day. Thus, total 60 students from 02 schools were included in the sample from urban area and rural area.

## 12. Technique of data analysis

After collecting data, the answer sheets of students were assessed by using suitable techniques and statistical analysis was made in the present study. The frequency distribution tables were prepared on according to variables such as sex & area of students. Statistical computations such as mean, standard deviation, median, skewness and kurtosis were made. Mean difference between the groups was worked out with the help of 't' value for each of the variables: area & sex of family.

## 13. Testing of study hypotheses

In order to achieve the objective of construction and standardizing of a Self-regulation Inventory for students of 11 years, 12 years and 13 years studying in Upper Primary schools of Gujarat State, total 02 hypotheses were formulated and tested with the help of their significance, coefficient of correlation and critical ratio.

*$Ho_1$: There will be no significant difference between mean scores of students of urban area and rural area on Self-regulation Inventory*

It is observed from table: 1 that value of F-ratio between mean scores of students of urban area and rural area on Self-regulation Inventory is 5.546, which is significant at 0.05 levels. So null hypotheses '$Ho_1$' is rejected, means students of urban area and rural area differs from each other in matter of self-regulation.

**Table :2 Difference between scores based on area**

| Area | Mean | difference |
|---|---|---|
| Urban<br>Rural | 155.430<br>152.924 | 2.506 |

It is observed from table: 2 that mean scores of students of urban area on Self-regulation Inventory is 155.430, whereas mean scores of students of rural area is 152.924. Its difference is found 2.506, means inequality is found in self-regulation between groups of students of rural area and urban area. Students of urban area are superior to those of rural area in self-regulation.

*$Ho_2$: There will be no significant difference between mean scores of boys and girls on Self-regulation Inventory*

It is observed from table: 1 that value of F-ratio between mean scores of boys and girls on Self-regulation Inventory is 12.503, which is significant at 0.01 levels. So null hypotheses '$Ho_2$' is rejected, means boys and girls differs from each other in matter of self-regulation.

**Table: 3 Difference between scores based on sex**

| Sex | Mean | difference |
|---|---|---|
| **Boys** | 152.296 | 3.76 |
| **Girls** | 156.058 | |

It is observed from table: 3 that mean scores of boys on Self-regulation Inventory is 152.296, whereas mean scores of girls is 156.058. Its difference is found 3.76, means inequality is found in self-regulation between groups of boys and girls. Group of boys is superior to that of girls in self-regulation.

**Table: 4 Study hypotheses and their testing**

| No | Hypothesis | F-ratio | Level of significance | Accepted /Rejected |
|---|---|---|---|---|
| 1 | There is no significant difference between mean scores of boys and girls on Self-regulation Inventory. | 12.503 | 0.01 | Rejected |
| 2 | There is no significant difference between mean scores of students of urban area and rural area on Self-regulation Inventory. | 5.546 | 0.05 | Rejected |

## 14. Findings of the study

- Significant difference was found between mean scores of students from urban area and rural area on the Self-regulation Inventory. Students of urban area were found superior to students from rural area in respect to self-regulation. Therefore, it can be concluded that effect of area is seen on self-regulation.
- Significant difference was found between mean scores of boys and girls on the Self-regulation Inventory. Boys were found superior to girls in respect to self-regulation. Therefore, it can be concluded that effect of sex is seen on self-regulation.

## 15. Educational implications

Educational implications of the present study are stated as below.

1. The present Self-regulation Inventory will be a useful tool for measurement of self-regulation of students of 11 years to 13 years.
2. The present study and the Self-regulation Inventory will be a useful to students for future studies related to self-regulation.

## 16. Recommendations

Following recommendations are made based on findings of the present study.

1. Such programmes should be arranged for students in schools, which are helpful to develop self-regulation among students.
2. Parents should know about self-regulation of their children and they should provide necessary guidance.
3. Less self-regulation was found among students of 12 years and 11 years in comparison to students of 13 years. Schools should implement some programmes for such students and provide guidance, so that their self-regulation can be developed.

4. At primary level, teachers and parents should encourage students and provide guidance for development of self-regulation among students.

## 17. Conclusion

Study design or plan suggests only the probability of solution of any problem. Solution of the problem created on a large scale needs collective efforts. Repetition of efforts provides correct direction to study work or solution of study problem. Usefulness of the present study will be decided by users of implications of the study. Significance of the present study depends on its educational implications.

The major aim of the present study was to construct a Self-regulation Inventory and standardize it on the students of 11 to 13 years studying in Upper Primary Schools of Gujarat State. While the process of data collection, it happened to come in contact of many students and teachers. Much knowledge was attained from experts. Norms were established according to each area & sex. If the present study proves to be helpful to teachers, students and society and persons related to study field, the humble effort of the investigator will be considered as significant.

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