

# Self-awareness and Self-motivation Has Stimulus on the Academic Concert of XI Standard Pupils in Biology Subject

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## Abstract

One of the most subtle issues that has provoked heated worldwide debates in the educational and instructional arena today is the way to enhance achievement outcomes in school education.

Self-motivated learning is learning that is guided by metacognition, strategic action and motivation to learn. Self-regulation of cognition and behavior is an important aspect of student learning. However, knowledge of cognitive and metacognitive strategies is usually not enough to promote student achievement. Students also must be motivated to use the strategies as well as regulate their cognition and effort. This study examined possible relationships between the academic performance and the Self-awareness and Self-motivation of XI grade biology students through the use of descriptive statistics. The survey was conducted in 50 schools of Tirunelveli district of Tamil Nadu state in southern India. Subjects were selected invariably from Government, Govt. Aided and Matric Higher Secondary Schools of the district. It was found that Self-awareness and Self-motivation have stimulus with academic performance of the selected respondents.

**Keywords:** *Self-awareness, Self-motivation, Academic Performance, XI Standard Students, Biology Subject, Tirunelveli district.*

## 1. Introduction

During the instructional process, students are given the instructional goals and objectives, which address the skills they should be able to perform. They are given information that is necessary to perform these skills. Opportunities are provided for this knowledge to be exercised in a controlled environment with accessibility to resources and assistance, if needed. Self-motivation engenders a preference for cognitions and interpretations that foster a positive self-concept. Self-Motivation is the

most important factor that educators can target in order to improve learning. Motivation is defined as the act or process of motivating; the condition of being motivating; a motivating force, stimulus, or influence; incentive; drive; something (such as a need or desire) that causes a person or student to act and the expenditure of effort to accomplish results [1]. To produce a knowledgeable peer group and prosperous country in line with the philosophy of education, perseverance of the Self-awareness and Self-motivation among student is essential. The researcher stated and proved that Self-awareness and Self-motivation has stimulus with academic performance of XI standard students in biology subject. He conducted a survey in Tirunelveli district of Tamil Nadu state in southern India and presented the results. Research clearly demonstrates the significant role of Self-awareness and Self-motivation in promoting the healthy development and academic achievement of all students.

## 2. Background of the Research

Tirunelveli district is a district of Tamil Nadu state in southern India. It borders Virudhunagar district to the north, the Western Ghats to the west, Kanyakumari district to the south and Thoothukudi district to the east [3]. According to 2011 census, Tirunelveli district had a population of 3,077,233 with a sex-ratio of 1,023 females for every 1,000 males, much above the national average of 929. The average literacy of the district was 73.88%, compared to the national average of 72.99%. Total literate in Tirunelveli district were 2,273,457 of which male and female were 1,210,710 and 1,062,747 respectively [4].

Education in Tirunelveli district in Tamil Nadu is highly advanced and for this reason the district is also known as the 'Oxford of South India'. The district of Tirunelveli has a large number of

educational institutions both in the government and the private sector. There are two universities, about twenty five arts and science colleges, one medical college, Government Siddha medical college, twenty engineering colleges, one law college, about two hundred and forty one pre-primary schools, about one thousand five hundred and one primary schools, four hundred and thirty one middle schools, one hundred and fourteen high schools, one hundred and eighty five higher secondary schools and about twenty eight teachers' training institutes [4].

### **3. Statement of the Problem**

The purpose of this research is to study the impact of Self-awareness and Self-motivation on academic success. It seeks to use the deceiver phenomenon to understand the experiences of a selected group in 50 schools of Tirunelveli district of Tamil Nadu state in southern India. Contextual influences on motivation such as self-concept and other psychological variables are explored. Questions addressed in this study are listed below and the theoretical issues pertaining to these questions are detailed throughout the literature review. The investigator is of the opinion that pertinent knowledge will be attained to advance both learning and teaching objectives for academic success. Research of this nature can be of considerable value in promoting sound methods to enhance student academic motivation; especially as such research can identify the negative academic processes, which may be eliminated by means of various corrective procedures.

### **4. Objectives of the Research**

Objectives are the guiding force to any research. This research is guided by the following objectives.

- Investigating the relationship between the respondents' Self-awareness and their academic achievement in Biology subject.
- Identifying the relationship between the respondents' Self-motivation and their academic achievement in Biology subject.

### **5. Review of the Related Literature**

Glenda et al. investigated the impact of effort regulation, a self-regulatory skill, and intrinsic motivation on online graduate students' levels of academic postponement, behavior that can adversely

affect both the quality and quantity of student work [5]. The authors were guided by the primary question, were online graduate students' intrinsic motivation and use of effort regulation strategies predictive of procrastination? Research results indicated that as intrinsic motivation to learn and effort regulation decrease, procrastination increases.

Nilubon Tongchai described an Open Learner Model as a means by which students could be supported in their reflection on their learning at University level [6]. The work was situated within a blended learning environment consisting of both classroom teaching and an online learning management system. This work focused on how blended learning had an impact on learning achievement comparing to the normal classroom learning with the same learning contents. The results showed that students from blended learning environment had a bigger difference in mean scores comparing between pre-test and post-test.

Kaylene et al. focused to provide the educator with suggestions from each of the five key ingredient areas that could be used to motivate his or her students [7]. Educators could start just by choosing and trying three new possibilities for enriching student motivation. Or, more importantly, educators could watch themselves and their own behaviors to become self-aware of new understandings about motivation.

Amel et al. proposed, on the basis of a reflection made in relation to the new educational demands of the current era, a number of strategies / practices with the aim of enhancing the quality of the learning situation and ultimately the level of learners' attainment in higher education [8]. In effect, students' achievement behavior was often the end product of a complex and interrelated types of relationships. It was the outcome of a net of hardly dissociable factors that could be either internal and / or external.

Shaljan Areepattamannil conducted a study, employing sequential explanatory mixed methods research design, and examined the academic self-concept, academic motivation, and academic achievement of Indian immigrant adolescents in Canada in comparison to their peers in India; the mediational role of academic motivation in the association between academic self-concept and academic achievement among Indian immigrant adolescents and Indian adolescents; and the

perspectives, beliefs, and recommendations of Indian immigrant adolescents and Indian adolescents in regard to classroom environments / instructional practices affecting their academic engagement and achievement [9]. Surveys were administered among secondary students in Canada and India to assess their academic self-concepts, academic motivation, and academic achievement. Eight focus group interviews were conducted to glean the perceptions and views of Indian immigrant and Indian adolescents. Descriptive discriminant analysis (DDA) revealed that the Indian immigrant adolescents in Canada did not differ markedly from their counterparts in India. Further, both the Indian immigrant and Indian adolescents perceived their classroom teachers as controlling rather than autonomy-supportive. Implications of the findings for educational practice and future research were discussed.

R. Griffin described conducted a study at a mid-sized public state-university in the mid-south, USA, to examine various factors affecting student academic performance [10]. In this study, the 10-scale Learning and Study Strategies Inventory assessment device was used. Results from this instrument showed that the single most influential learning and study skill promoting positive academic performance was level of intrinsic motivation. The Downing questionnaire examined motivational factors such as behaviors and beliefs, which might maximize one's potential for positive achievement in college. Along with motivation, the subscale measuring an attitude of life-long learning significantly predicted academic performance. The results of this study had pedagogical implications for helping students maximize their academic performance in college.

Kim, et al., conducted a study to examine such aspects of motivation as competitiveness, time management, stress management, and involvement in extracurricular activities [11]. All of the above are either aspects of motivation or have implications for motivation. This paper examines more deeply some of these aspects and tries to ascertain with statistical analysis their effect towards inducing superior academic performance of students.

S. Jaafar et al. presented a study on the motivational and self-regulated learning components of classroom academic performance of Kolej Universiti Islam Antarabangsa Selangor (KUIS) [12]. 50 questionnaires had been administrated personally

to Bachelor of Accounting (Hons) students. The findings revealed that self-efficacy has strong relationship towards motivational as compared to intrinsic value. Meanwhile, cognitive strategy used and self-regulation had strong relationship towards self-regulated learning. This research helped to determine the relationships between motivational and self-regulated learning dimensions.

Adedeji Tella investigated the impact of motivation on students' school academic achievement in mathematics in secondary schools using motivation for academic preference scale as a measuring instrument and achievement test in mathematics [13]. Results showed that gender difference were significant when impact of motivation on academic achievement was compared in male and female students. Also other result indicated significant difference when extent of motivation was taken as variable of interest on academic achievement in mathematics based on the degree of their motivation. Implications, suggestions and recommendations on students, parents, government, counsellors, educational stakeholders, etc., were discussed.

Mark R. Leary stated a theory of motivation and research were reviewed regarding self-related motives and self-conscious emotions with an emphasis on how these motivational and emotional aspects of the self might be related [14]. Specifically, these motives and emotions appeared to function to protect people's social well-being. Thus, these motives and emotions did not operate to maintain certain states of the self, as some have suggested, but rather to facilitate people's social interactions and relationships.

## 6. Methodology

### 6.1 Participants

The Tirunelveli district has been divided into three educational districts namely, Tirunelveli, Tenkasi and Cheranmahadevi. It has a Chief Educational Officer from Tirunelveli and three District Educational Officers. Total number of schools of different types (Government, Govt. Aided and Matric) of higher secondary schools available and the number of schools selected for research from each educational districts are given in Table 1.

Table 1: Educational district wise total number of schools and schools selected for research

| Educational Districts | Tirunelveli         |                    | Tenkasi             |                    | Cheranmahadevi      |                    |
|-----------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|
|                       | Total No. of School | Selected for Study | Total No. of School | Selected for Study | Total No. of School | Selected for Study |
| School Types          |                     |                    |                     |                    |                     |                    |
| Government Schools    | 28                  | 7                  | 34                  | 10                 | 26                  | 7                  |
| Govt. Aided Schools   | 29                  | 5                  | 29                  | 5                  | 39                  | 6                  |
| Matric Schools        | 28                  | 4                  | 16                  | 3                  | 17                  | 3                  |
| Total                 | 85                  | 16                 | 79                  | 18                 | 82                  | 16                 |

The subjects were from higher secondary schools (N = 50) with 268 male students (53.6 %) and 232 female students (46.4 %). The subjects' size is 500. The research subjects are also categorized by the four major communities, Backward Class (BC – 49 %), Most Backward Class (MBC – 25.4 %), Scheduled Caste / Scheduled Tribes (SC / ST – 17.8 %) and Other Communities (OC – 7.8 %). Likewise, the researcher selected 69.6 % of the subjects, of which male – 65.67 % and female – 47.39 % from rural schools and the remaining 39.4 % of the students from the schools situated in urban areas (male – 39.66 % and female – 45.26 %).

### 6.2 Measures

Methods used in this study was stratified random sampling based on population characteristics, and uses the form survey instrument questionnaire.

## 7. Findings and Discussion

Self-awareness is nothing but the self-observation and identification of a feeling when it appears. Likewise, self-motivation is a move to the goal of positive emotions, better self-control and to delay gratification and impulse weakens. The researcher aimed to prove the relationship of Self-awareness and self-motivation of a XI standard student on his academic achievements. He framed his questioner to collect related data from the students and had some informal discussion with the students regarding their relationship with friends and peers and to understand the level of self-motivation of a student. The questioner has three responses namely Positive (Yes), Negative (No) and Natural (Don't Know).

The questioner collected from the students were analyzed and the results were formulated. The

collected answers were grouped based on the aspects such as intrinsic and extrinsic motivation, accepting personal responsibility, adopting lifelong learning, believing oneself, self-conscious emotions and so on. The knowledge generated from the survey helped a lot to the researcher to understand the students and motivate them towards their goal.

### 7.1. Intrinsic and extrinsic motivation:

The first aspect for discussion from the research is whether intrinsic and extrinsic motivation help to succeed in studies. 58.31 per cent of the Government Schools students of class XI gave positive answers and 35.42% provided negative answers and 6.27 per cent of them register natural answers. Likewise Govt. Aided School students' answers were 63.45 %, 32.04 % and 4.51% respectively. 65.02 %, 30.99 % and 3.99 % were provide by the students of Matric Hr Sec. Schools. From the result obtained, it is evident that intrinsic and extrinsic motivation help a student to improve his academic performance. The result is presented in Fig. 1.

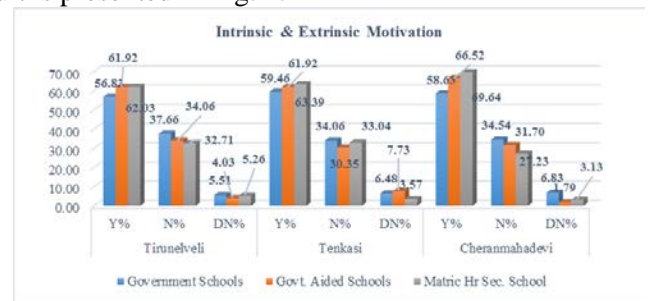


Fig.1. Intrinsic and Extrinsic motivation among XI standard students

### 7.2 Accepting Personal Responsibility:

When a student tries to accept his responsibility, he will succeed in his life, ambition and so on. Students selected for research were asked to answer to the questions related to self-responsibility and whether they could achieve their goal and helps them to attain good score in their studies. The result is given in Table 2.

Table 2. Accepting personal Responsibilities

| Educational Districts | Tirunelveli |    |     | Tenkasi |    |     | Cheranmahadevi |    |     |
|-----------------------|-------------|----|-----|---------|----|-----|----------------|----|-----|
|                       | Y%          | N% | DN% | Y%      | N% | DN% | Y%             | N% | DN% |
| School Types          |             |    |     |         |    |     |                |    |     |



|                        |       |       |      |       |       |      |       |       |      |
|------------------------|-------|-------|------|-------|-------|------|-------|-------|------|
| Government Schools     | 62.50 | 29.36 | 8.14 | 78.18 | 17.03 | 4.79 | 71.46 | 25.90 | 2.63 |
| Govt. Aided Schools    | 76.17 | 20.13 | 3.70 | 76.17 | 21.98 | 1.85 | 82.14 | 16.29 | 1.56 |
| Matric Hr Sec. Schools | 77.07 | 20.30 | 2.63 | 73.66 | 26.34 | 0.00 | 83.04 | 16.96 | 0.00 |

### 7.3. Adopting Lifelong Learning:

Learning is a process. It cannot be stopped or no one can retire from learning. When this topic related questions were posted to the students of biology group, 78.41 per cent of the Government Schools students of class XI gave positive answers and 18.35 % provided negative answers and 3.24 per cent of them register natural answers. Likewise Govt. Aided School students' answers were 81.57 %, 13.79 % and 2.46% respectively. 84.93 %, 12.35 % and 2.71 % were provide by the students of Matric Hr Sec. Schools. From the result obtained, it is evident that adopting lifelong learning helps a student to improve his academic performance. The result is presented in Fig. 2.

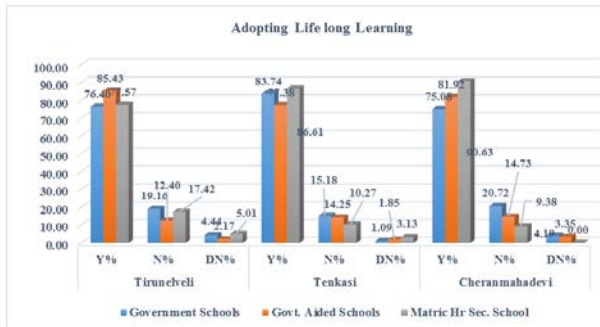


Fig.2. Adopting Lifelong Learning by XI standard students

### 7.4. Believing self:

Students were asked to answer to the questions like they believe themselves and whether it helps them to attain good score in their studies. The result is given in Table 3.

Table 3. Believing Self

### 7.5. Self-Conscious Emotions:

Anyone who rules himself can rule the world. This will happen when the person is aware of his personal emotions and self-conscious of that. XI

| Educational Districts  | Tirunelveli |       |      | Tenkasi |       |      | Cheranmahadevi |       |       |
|------------------------|-------------|-------|------|---------|-------|------|----------------|-------|-------|
|                        | Y%          | N%    | DN%  | Y%      | N%    | DN%  | Y%             | N%    | DN%   |
| Government Schools     | 72.20       | 22.29 | 5.51 | 80.19   | 14.09 | 5.72 | 80.35          | 17.02 | 2.63  |
| Govt. Aided Schools    | 86.39       | 13.61 | 0.00 | 82.37   | 15.46 | 2.17 | 78.57          | 18.08 | 3.35  |
| Matric Hr Sec. Schools | 77.82       | 14.79 | 7.39 | 76.79   | 16.96 | 6.25 | 70.54          | 16.07 | 13.39 |

standard students admitted that they sometimes aware of their emotions and some time it would rule them. From the research, it is explicit that 57.86 per cent of the Government Schools students of class XI gave positive answers and 34.29 % provided negative answers and 3.98 per cent of them register natural answers. Likewise Govt. Aided School students' answers were 67.22 % 32.26 % and 0.52 % respectively. 60.15 %, 35.31 % and 4.55 % were provide by the students of Matric Hr Sec. Schools. From the result obtained, we came to a conclusion that when students are aware of their emotion, they can improve his academic performance. The result is presented in Fig. 3.

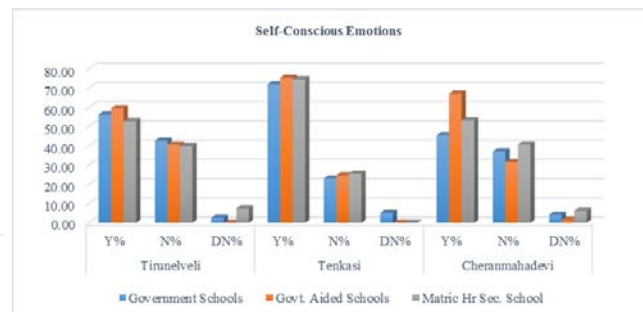


Fig. 3. XI standard students are Self-Conscious on their Emotions

### 7.6. Personal values on life:

When our personal life has values, we can enjoy success in everything. Though our samples are higher secondary school students, some of them have very high level of value system for their life. It is very difficult to find students without any values. Even though their values are not up to the level, but

they have some meaning for life. The result is presented in Table 4.

Table 4. Personal Values on Life

| Educational Districts | Tirunelveli |       |       | Tenkasi |       |       | Cheranmahadevi |       |      |
|-----------------------|-------------|-------|-------|---------|-------|-------|----------------|-------|------|
|                       | Y%          | N%    | DN%   | Y%      | N%    | DN%   | Y%             | N%    | DN%  |
| Government Schools    | 89.80       | 7.32  | 2.88  | 83.56   | 12.09 | 4.34  | 82.21          | 12.84 | 4.95 |
| Govt. Aided Schools   | 86.39       | 13.61 | 0.00  | 84.54   | 13.61 | 1.85  | 84.54          | 13.61 | 1.85 |
| Matric Hr Sec. School | 72.56       | 17.42 | 10.03 | 74.34   | 14.14 | 11.51 | 76.79          | 16.96 | 6.25 |

### 7.7. Self-control and Self-efficacy:

Self-control and Self-efficacy are the two eyes of one's success. If anybody have self-control, he / she will gain and enjoy many laurels in their life. 81.01 per cent of the Government Schools students of class XI gave positive answers and 12.63% provided negative answers and 6.36 per cent of them register natural answers. Likewise Govt. Aided School students' answers were 85.42 %, 11.71 % and 2.87 % respectively. 80.32 %, 10.37 % and 9.31 % were provide by the students of Matric Hr Sec. Schools. From the result obtained, many students have self-control for achieving their goals and to improve his academic performance. The result is presented in Fig. 4.

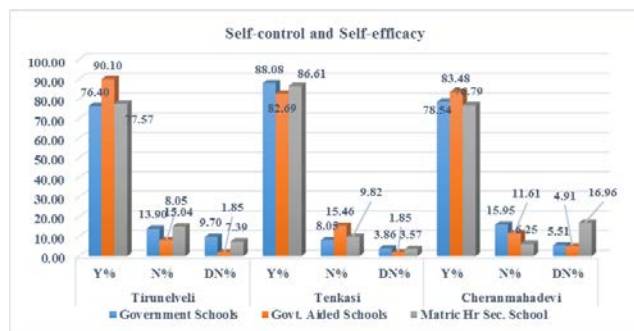


Fig. 4. Self-control and Self-efficacy among XI standard students

### 7.8. Comprehensive, long-range educational plan:

Educational plan is must for any student who aspire to achieve very high marks in his higher

secondary leaving examinations. So, when the XI standard students are asked about comprehensive and long-range educational plan, they provided different answers. They are given in Table.5.

Table 5. Comprehensive, long-range educational plan

| Educational Districts | Tirunelveli |       |       | Tenkasi |       |       | Cheranmahadevi |       |      |
|-----------------------|-------------|-------|-------|---------|-------|-------|----------------|-------|------|
|                       | Y%          | N%    | DN%   | Y%      | N%    | DN%   | Y%             | N%    | DN%  |
| Government Schools    | 81.91       | 13.90 | 4.19  | 83.56   | 11.17 | 5.27  | 86.55          | 9.74  | 3.70 |
| Govt. Aided Schools   | 90.10       | 9.90  | 0.00  | 88.24   | 8.05  | 3.70  | 86.07          | 10.23 | 3.70 |
| Matric Hr Sec. School | 67.79       | 22.18 | 10.03 | 71.22   | 17.27 | 11.51 | 77.23          | 12.95 | 9.82 |

### 8. Conclusion

As in other studies, there are several proposed limitations that may affect the reliability and accuracy of the study. Though the students' strength is vast in higher secondary level, the researcher collected only 300 students as his sample and made the study. Therefore the responses received may not represent all the population. Finally, this study only focuses on few dimensions in self-awareness and self-motivation but there are other dimensions that could be explored such as task anxiety and study workload.

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