

**Need Theory Of Motivation: A Study On Performance Of The
Science Students' In High School Level, With Special Reference
To Tiruchirappalli District, Tamil Nadu**

P. BASTIN AROCKIA RAJ

**Assistant Professor, School of Management studies,
Department of Business Administration
St. Joseph's college (Autonomous), Tiruchirappalli, Tamil Nadu**

S. ARPUTHARAJ

**Assistant Professor, School of Management studies,
Department of Business Administration
St. Joseph's college (Autonomous), Tiruchirappalli, Tamil Nadu.**

Abstract

Motivation plays a crucial role in learning. Motivation energizes the behavior of the individual. It also directs the behavior towards specific goals. "Need Gratification Theory" is the most important of the human needs. Science and technology are often superficial as fundamental forces behind economic development in industrialized. India as a developing country should be ready to join the ranks of developed nations. Motivation in science learning is believed to be the vital parts of developing and supporting a lifelong interest in science and develop students' scientific literacy level. Unfortunately, many studies revealed that student's attitudes, interest, and motivation towards science learning decline throughout their years at school, especially during secondary school years. The study requires both primary and secondary data were collected through a questionnaire from 75 respondents in High School level science students area people in Tiruchirappalli town. The area of the study is High School level, science students in Tiruchirappalli. The researcher uses 75 respondents from Biology, political science, and

mathematics students. The researcher made collect the information from the respondents using simple Random sampling method in High School level science students. The research is found that 51 respondents are agree that the classrooms discussions are good way to motivate, nine respondents are did not comment, while 15 respondents disagree that the class rooms discussions are good way to motivate. All science students should be expected to succeed academically. Not only should teachers clearly communicate this expectation to their students, but teachers should also give them every opportunity to meet this goal.

Keywords: Motivation, Need, science, human needs and so on.,

Introduction:

“Motivation in the central factor in the effective management of the process of learning. Some type of motivation must be present in all learning”.

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Motivation plays a crucial role in learning. Motivation energizes the behavior of the individual. It also directs the behavior towards specific goals. It helps students acquire knowledge, develop social qualities, increase initiation, persist in activities, improve performance, and develop a sense of discipline. Human behaviour is an immensely complex one. First it was attempted to explain this complex behaviour on the basis of “instinct”. People were said to live together in groups because of their “gregarious instinct”. Similarly the term “ Drive” has a clear and direct referent as long as it is applied to conditions such as number of electric shock applied to an organism. Bur, when it is applied to complex human behaviour it looks less relevant.

Now the trend is postulating “Motives” as explanations of most human behaviour. “Motivation” refers to all those phenomena which are involved in the simulation of action towards particular objectives or goals. As such motivation is the process of arousing, maintaining and controlling interest. It has become an acceptable factor to explain human behaviour because of the following two characteristics:

- i its persistent, goal oriented nature; and
- ii its apparent failure to following directly from observable

Stimulating events.

Importance of Motivation:

Conventionally, motivation has been thought of in terms of what and how pupils learn about subject matter. In relation to classroom situation, Wingo defines motivation thus: “anything the teacher may do to increase students effort or desire to learn”.

Similarly form a class room orientation stephens presents the process of using motivation as given below:

- (a) to get the student into a situation which learning can occur;
- (b) to energize him activate him or keep him reasonable alert, and
- (c) to keep his attention directed to one part of a situation rather than to another.

Intrinsic motivation:

According to Wingo all those motivational procedures in which the teacher attempts to motivate the learner by helping him perceive more clearly the relationship between his goals and those set by the learning experience are said to use ‘intrinsic’ motivation.

Extrinsic motivation:

All those motivational procedures in which the teacher uses rewards such as prizes and stars that have little if any inherent relation to the task set for the learner are said to use ‘extrinsic’ motivation.

MASLOW’S NEED GRATIFICATON THEORY AND ITS EDUCATIONAL IMPLICAATIONS

Maslow’s Gernal Dynamic Theory is otherwise called “Need Gratification Theory”. Maslow has listed the most important of the human needs and arranged them in a hierarchical order as given below:

Maslow suggests that when needs are satisfied at one level, the next higher order of needs becomes prepotent”. Consequently according to Maslow, if all the needs of an individual were unsatisfied, he would probably hunger for food more strongly than for anything else. All other needs will become non-existent or pushed into background on the other hand when these physiological needs are satisfied, at once other and ‘higher’ needs emerge and dominate the organism, and when these are satisfied, new and still “higher” needs emerge.

Basic human needs, in other words, are organized into a hierarchy of relative Prepotency”. Hence, gratification of physiological needs is also “Untigation” of higher needs. When any needs becomes gratified it no longer dominates the organism, and it becomes unimportant in the current dynamics of the individual while “Unsatisfied” needs than dominate and organize the behaviour of the organism.

1. Physiological Needs:

The needs are for food, water, air, sleep, activity, sex and sensory satisfaction. Hungry children manifest apathy, lethargy, inability to pay attention and perhaps over concern about food to such a degree that response to classroom stimuli do no occur. Moreover energy health or illness, effectiveness of sensory function etc., also come under Psychological needs.

2. Safety Needs:

Neglected children appear to be dominated by safety, seeking behaviour, if their psychological needs are satisfied. Because of the needs for safety, children prefer care during illness, routines, dependable parents and an orderly world. They need the feeling of security that comes from structure, discipline and consistency.

3. Love and belongingness:

When both Psychological and safety needs are satisfied, the need for love, ‘affection’ and “belongingness” will emerge. The affect ion or love relationship, Maslow point out, expresses itself in our society mostly between sweet, hearts, married people, parents and children and between vary close friends. However in our society, the need for belongingness is a necessary to have more diffused love or affection with a number of other as well.

4. Esteem needs:

All people need a stable, firmly based high evaluation of themselves. “This entails a self respect and esteem from others. The need is satisfied by (a) Confidence and independence and (b) recognition, attention and appreciation from others

5. Self actualization:

Self actualization means “one must be what we can be” that is to become self fulfilled and to become everything that one is capable of becoming. Maslow calls respondents whose needs are satisfied, basically satisfied people.

Statement of the Problem

Science and technology are often superficial as fundamental forces behind economic development in industrialized. India as a developing country should be ready to join the ranks of developed nations. So, it is important for students to excel in science. Motivation in science learning is believed to be the vital parts of developing and supporting a lifelong interest in science and develop students’ scientific literacy level. In addition, motivation has been identified to have impacts on students’ learning and influence the science students’ performance in science. Researcher said motivation in science required further attention because motivation is a predictor to students’ involvement in science. Unfortunately, many studies revealed that student’s attitudes, interest, and motivation towards science learning decline throughout their years at school, especially during secondary school years (Galton, 2009). From the reports of performance in science learning is found that students’ lack of interest and declining ability to do science. Furthermore, some of the studies have shown that the students had negative attitude towards science learning and students’ scientific attitude between gender, ethnicity and across educational levels is found to be low (Kamisah, Zanaton & Lilia, 2007). The students’ motivation towards science learning was found that it has considerable impact on students’ scientific attitude and achievement (Cavas, 2011). It is found that there are numerous factors affecting students’ motivation towards science learning. Many researchers have investigated different factors that will influence students’ motivation towards science learning such as gender (Akbaş & Kan, 2007) parental education level (Huesmann, 2009) and academic.

Methodology:

The study requires both primary and secondary data were collected through a questionnaire from 75 respondents in High School level science students area people in Tiruchirappalli town.

The secondary data can be collected from the books, and internet. The data were edited analyzed and presented in the form of tables and when never necessary.

Selection of the tools:

The researcher has chosen questionnaire as the tool for data collection among the various tools of social research. The questionnaire is composed of well patterned questions. Since all the respondents were educated, the researcher found that questionnaire would be ideal to get the appropriate response. Moreover, questionnaire is more confidential and subjective.

Method of sampling:

The area of the study is High School level, science students in Tiruchirappalli. The researcher uses 75 respondents from Biology, political science, and mathematics students. The researcher made collect the information from the respondents using simple Random sampling method in High School level science students.

FINDINGS, SUGGESTIONS AND CONCLUSION

Findings:

- ❖ It is observed that 42 respondents among the respondents are male students while the remaining 23 are female students. It is inferred that 56 per cent are male while 44 per cent are female. Thus more than half in the male students.
- ❖ It is found that more than half of the respondent strongly agree (30 respondents) with enjoy science. Only 15 respondents are Disagree with the science.
- ❖ Thus we can say that only 32 per cent agree that they are motivated in the class. While 1.25 percent disagree added to 0.5 per cent strongly disagree. Therefore majority of them are motivated in the classroom.

- ❖ It is observed that 30 respondents are disagreed with motivated with teacher's responsibility 24 respondents agree, and six respondents cannot comment while six person strongly disagree.
- ❖ It is inferred that 48 per cent strongly agree and 28 per cent agree that the motivated is our responsibility. Only 20 per cent disagree with this statement. Thus majority are motivated with our responsibility.
- ❖ It is found that 51 respondents are agree that the classrooms discussions are good way to motivate, three respondents are did not comment, while 15 respondents disagree that the class rooms discussions are good way to motivate.
- ❖ It is clearly inferred that 80 per cent of the respondents agree and 10 per cent of the people are disagree with the learning more from they are high school students.
- ❖ It is found that 54 of the respondents are strongly agree with feel that I am a good students, and remain 15 respondents cannot say anything.
- ❖ It is observed that 45 respondents disagree with the hard to pay attention in this science class. 21 respondents are agreed and nine respondents cannot comment.
- ❖ It is inferred that 45 per cent disagree and 37.5 per cent strongly disagree the science is interesting to me.
- ❖ It is shown that 54 respondents agree five respondents strongly agree with the my teacher, have used scientific inquiry in the class room.
- ❖ It is inferred that 40 per cent of respondents are prefer a step by step procedure dong in the labs.
- ❖ It is observed that 30 peoples are agree to the expect to do well in the class. 15 respondents are strongly agree remain 24 respondents cannot say any comment. Six people are disagree.
- ❖ It is found that 40 of the respondents are agree, 25 respondents are strongly agree and three respondent did not comment and seven respondents are strongly disagree and agree the accept the project based assignment.
- ❖ It is found that 30 people are agree that the classroom atmosphere has a great influence on my motivation to learn. and 15 respondents are strongly agree, while 21 respondents are disagree.
- ❖ It is inferred that the 45 per cent respondents are strongly agree the memorization is the effective learning tool for the student.

It is shown the 30 people are strongly agree to learn with effectively taking notes. 12 respondents are agreeing only four respondents undecided to this comments.

SUGGESTIONS

All science students can benefit from instructional strategies that have been shown to increase motivation. In the implementation of these strategies, teachers must recognize the diverse learning styles of the students in their classes, and use a variety of motivational tools to meet these different needs. By incorporating the strategies shown to be effective in this study, teachers have the capability to motivate students in all science classes.

In every science class, teaching should be approached with enthusiasm. An energetic presentation by the teacher shows students that the material is neither stale nor boring. In fact, when teachers project enthusiasm in their lessons, science can be perceived as exciting. Incorporating enthusiasm into the presentation is not a difficult or time-consuming strategy for teachers who genuinely appreciate the subject.

All science students should be expected to succeed academically. Not only should teachers clearly communicate this expectation to their students, but teachers should also give them every opportunity to meet this goal. One way to accomplish this task is by using a variety of strategies in the classroom. This study revealed that not only do effective teachers incorporate variety into their lessons to reach students with different learning styles, but also that variety adds an atmosphere of expectancy to the class, thus alleviating student boredom. Because the class atmosphere is an integral factor in student motivation, teachers should strive to create a class environment in which students feel free to participate in discussions and activities. This study emphasized the fact that a non threatening environment in the classroom supports student motivation to learn.

This study showed that all the teachers questioned their students consistently. In the science classroom, effective teachers should make use of questioning techniques not only to keep students on task, but also to check for understanding and to expand the thinking of their students. Classroom discussions can be greatly enhanced by teacher questions, and student responses allow teachers to gauge the effectiveness of their instruction.

This study showed similarities and differences between the motivational strategies used by high school science teachers in different types of classes. It was evident that the teaching

strategies used by these teachers were effective in motivating students to become engaged in learning which can support overall academic achievement in science. From these similarities and differences, effective strategies have been identified that can be used by high school science teachers to motivate their students.

Finally, one of the most important reasons for teaching is to positively impact the lives of our students. The first step in that direction is building relationships with students and letting them know we care. The teachers in this study placed great emphasis on the motivational value of teacher-student rapport. All teachers should strive to develop positive relationships with their students and thus earn the right to be heard.

This study showed similarities and differences between the motivational strategies used by high school science teachers in different types of classes. It was evident that the teaching strategies used by these teachers were effective in motivating students to become engaged in learning which can support overall academic achievement in science. From these similarities and differences, effective strategies have been identified that can be used by high school science teachers to motivate their students.

CONCLUSIONS

Motivating students in science is a challenge faced in practically every high school across the nation. This study sought to explore both teacher and student perceptions of motivation and to identify successful motivational strategies used by teachers in the science classroom. The qualitative nature of this study allowed results to emerge that could only be described through such an in-depth case study approach. The first part of the study explored effective practices used in common by four science teachers who described themselves as being highly motivational. In the second part of the study, the issue of tracking in science and its relationship to student motivation was examined. Specifically, this focus on tracking provided insight into the similarities and differences in motivation for both advanced and general science students and strategies used by the teachers of these different classes.

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