

Intrinsic and Extrinsic Academic Motivation of School Students of Shimla District

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Abstract— This study was conducted to study the intrinsic and extrinsic academic motivation of senior secondary school students of Shimla district. Sample of the study consisted of 120 (60 of each gender as well as area) school students on which Academic Motivation Scale (scale consisted of 56 items, out of which 24 items are of intrinsic academic motivation and the remaining 32 items are of extrinsic academic motivation) constructed by investigator herself was administered. For the analysis and interpretation of data the Analysis of Variance (ANOVA) was applied and 't' test was used where required. School students differed significantly in intrinsic and extrinsic academic motivation w.r.t. their gender. School students not differed significantly in intrinsic and extrinsic academic motivation w.r.t. their area. Gender x area had no combined effect on intrinsic and extrinsic academic motivation of school students even at 0.05 level of significance.

Keywords— Intrinsic Academic Motivation, Extrinsic Academic Motivation, Secondary School Students.

I. INTRODUCTION

Education plays a very important role in each and every individual's life. For living a luxurious life or for living a better life, one should be educated properly. It helps a person to show his best by mind and spirit. Being educated and earning a professional degree prepares one to be a part in reputed organizations, companies or institutions. Education helps us in determining what is good or what is bad for ourselves. A person who gets good education would become good citizen and more dependable worker. Without education a person is incomplete. Thus education makes a human being right thinker and a correct decision maker.

Intrinsic Motivation

It is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence. It exists within individuals, in another sense it exists in the relation between individuals and activities. People are intrinsically motivated for some activities and not others, and not everyone is intrinsically motivated for any particular task. It refers to motivation that is animated by personal enjoyment, interest, or pleasure, and is usually contrasted with extrinsic motivation, which is manipulated by reinforcement contingencies (Guay et al., 2010). Intrinsically motivated students earn higher grades and achievement test scores, on average than extrinsically motivated students, are more likely to feel confident about their ability to learn new material, use more logical information-gathering and decision-making strategies than do extrinsically-motivated students, engage themselves in tasks that are moderately challenging, retain information and concepts longer, and are more likely to be lifelong learners, continuing to educate themselves.

Extrinsic Motivation

Extrinsic motivation refers to motivation that comes from outside an individual. The motivating factors are external, or outside. Extrinsic motivation is anything outside of yourself that you need to obtain or acquire to increase motivation. It is related to behaviour that is not done for its own sake but for

external reasons. These external reasons can be rewards or punishments. According to Brown (2007), "Extrinsic motivation refers to our tendency to perform activities for known external rewards, whether they be tangible (e.g. money) or psychological (e.g. praise) in nature."

By combining intrinsic and extrinsic motivators, teachers can help students learn the subject at hand as well as valuable life skills. However, educators typically consider intrinsic motivation to be more desirable than extrinsic motivation, and some research suggests that the learning outcomes of intrinsic motivation are better than those obtained under extrinsic motivation.

Significance of the study

Education is that process through which we can bring out the potentialities or capacity of an individual or a child. Academic motivation is crucial to a student's academic success at any age. Because students form self-concepts, values, and beliefs about their abilities at a young age, the development of early academic motivation has significant implications for later academic careers. Student high in academic motivation are more likely to have increased levels of academic achievement and lower dropout rates. The findings of present study can provide clue for enhancing intrinsic and extrinsic academic motivation of students, improving instructional strategies and effective learning.

Objectives of the study

- To study and compare intrinsic academic motivation of students in relation to their gender.
- To study and compare intrinsic academic motivation of students in relation to their area.
- To study double interaction effect of gender and area on intrinsic academic motivation of students.
- To study and compare extrinsic academic motivation of students in relation to their gender.
- To study and compare extrinsic academic motivation of students in relation to their area.
- To study double interaction effect of gender and area on extrinsic academic motivation of students.

Hypotheses of the study

- Intrinsic academic motivation of school students will not differ significantly with respect to their gender.
- Intrinsic academic motivation of school students will not differ significantly with respect to their area.
- Intrinsic academic motivation of school students will not interact significantly with respect to their gender and area.
- Extrinsic academic motivation of school students will not differ significantly with respect to their gender.
- Extrinsic academic motivation of school students will not differ significantly with respect to their area.
- Extrinsic academic motivation of school students will not interact significantly with respect to their gender and area.

Delimitations of the study

- The study was delimited to the Shimla District of Himachal Pradesh.
- The study was delimited to the government senior secondary schools of rural and urban areas of Shimla District.
- The study was delimited to the male and female students of secondary school students.

Operational definitions of the term used

- 1) *Intrinsic Academic motivation*: It refers to motivation that comes from inside of an individual rather than from any external or outside rewards.
- 2) *Extrinsic Academic Motivation*: It refers to motivation that comes from outside of an individual. The motivating factors are external or outside rewards.
- 3) *Gender*: it refers to sex of male and female secondary school students
- 4) *Area*: it consist of rural and urban areas of Shimla District which are defined as follows:

Urban Area: Areas which have been notified as Municipal Corporation or Municipal Committee or Notified Area Committee, Nagar Panchayats.

Rural Area: The area which is governed by Gram Panchayats and notified as rural area by the state government.

II. REVIEWS OF RELATED LITERATURE

Figueroa (1992) studied student's perceptions of their intrinsic motivation to learn. The purpose of this study was to gain a better understanding of the phenomena of intrinsic motivation to learn and the individual meaning attributed to learning. A semi-structured qualitative interview was designed to collect information from the participants. From students own perspectives a definition of intrinsic motivation was drawn from this study. Intrinsic motivation was described as experiencing personal interest and joy for learning. This was coupled with the need for facing optimal challenging activities and the need of feeling and being competent. The strength of the individuals' significance of meanings attached to learning. Implications for teachers from this study are: keep students' interest high by introducing topics in an interesting, challenging, and informative way; highlight the stimulating intellectual tasks to be accomplished; demonstrate enthusiasm, interest in the topics, and in learning in the classroom; focus

on higher learning tasks because they present challenging opportunities to generate new ideas and strategies to face them.

Ginsburg and Bronstein (1993) studied family factors related to children's intrinsic and extrinsic motivational orientation and academic performance. Data were collected from 93 fifth grade students and their parents from Florida. Achievement scores were obtained from school records. Extrinsic rewards and over-and under controlling family styles were found to be related with extrinsic motivation and lower academic achievement of the students. On the other hand parental encouragement was associated with intrinsic motivation of the students.

Mackie (1995) compared 125 students' intrinsic motivation and self-perceived competence before and after participation in a summer enrichment program for economically disadvantaged middle school students. Program participants completed the Scale of Intrinsic versus Extrinsic Motivation in the classroom and the self-perception profile for children during the initial week of the program and again upon completion of the program. In order to determine challenging program practices, students were asked whether or not they worked harder and learned more in the program than in regular school, and, if so, why. To determine practices that stimulated curiosity, students were asked if the program was more interesting than regular school, and in what way it was more interesting. The comparison of pre and post-test scores on the preference for challenge subscale of the instrument measuring motivation showed students moving slightly in the direction toward intrinsic motivation, although the difference was not statistically significant. For the incentive to satisfy curiosity/interest subscale of the instrument, there was no significant difference in pre and post-test means. Comparing pre and post-test means for the scholastic competence subscale of the self-perception instrument did not results in a significant difference although students moved slightly in the direction toward higher self-perceived scholastic competence. Interviews suggested teachers and students can identify techniques and practices in the program which may enhance intrinsic motivation and self-perceived competence. Both teachers' and students' responses focused on the importance of the teacher-student relationship and the process of evaluation in fostering motivation and self-competence.

Husman (1998) studied the effect of perceptions of the future on intrinsic motivation. The study was designed to obtain data to examine the viability of the conceptual separation of two types of instrumentally, endogenous and exogenous instrumentality. It was proposed that a task is exogenously instrumental when success on that task is artificially related to a future goal (doing well on a test in physics is exogenously related to becoming a doctor) and a task is endogenously instrumental when success on that task is intrinsically related to obtaining a future goal (i.e., learning organic chemistry is endogenously instrumental for becoming a good organic chemist.) Further, it was proposed that, although exogenous instrumentality may harm intrinsic interest in a task, endogenous instrumentality will, in fact, encourage intrinsic interest. Using an experimental design, this

study examined the application of vector concepts under conditions designed to stimulate exogenous or endogenous instrumentality for the task. The results lend very partial support for the hypothesized conceptual framework.

Deci et al. (1999) meta-analyzed 128 studies that documented the effects of extrinsic rewards on intrinsic motivation represented by free-choice behavior and self-reported interest in the activity or task. The authors found that the use of extrinsic rewards significantly affected free-choice behavior, with an effect size of -0.24. There was no significant effect on students' self-reported interest. Thus, when students received extrinsic rewards in exchange for task participation, they were less likely to persist in the task once the reward conditions were removed, although their levels of self-reported interest did not decline. Overall, the authors concluded that the negative effects of tangible rewards were more dramatic for children than they were for college students. The effect of such rewards varied depending on the type of reward (i.e., whether it was tangible or intangible) and the context in which the reward was given. Such moderators have implications for the types of rewards that should (or should not) be used in schools, as well as the instructional contexts in which they should (or should not) be provided.

Tsang (2004) investigated academic motivation and achievement among students from immigrants and American born families. Data were collected through survey method and university records from over 998 college students. The results indicated that immigrants placed more importance on family interdependence than American born families. Family attitude contributed to greater academic motivation among youth from immigrants as compared to American born families.

Areepattamannil (2006) studied the meditational role of academic motivation in association between school self-concept and school achievement among 355 Indian immigrant adolescents in Canada and 363 Indian adolescents in India. Analyses revealed the mediation role of both intrinsic and extrinsic motivation in the association between school self-concept and school achievement.

Kim et al. (2007) examined the effect of the student intrinsic motivation on academic achievement and preference for co-operative learning using the framework of self-determination theory through longitudinal study. The data was collected from 6908 Korean middle school students. The results showed that intrinsic motivation had a direct impact on achievement.

Adepoju (2008) examined the degree of relationship among motivational variables and academic performance of students in secondary school students in Oyo state, Nigeria. A sample of 100 senior school students was selected for data collection. The results of the study revealed that there was high relationship of each motivation variable with academic performance. The results also indicated that a significant difference ($t=2.74$) existed between the level of motivation in urban and rural students.

Ghazi et al. (2010) examined parental involvement in their children's academic motivation in rural areas at primary level. The study was conducted on a sample of 250 students from Bannu in Pakistan. Data were collected through structured

interview from students and their parents. The results showed that parents' encouragement, discussion of importance of education and educational affairs had direct positive influence on achievement motivation. The findings also revealed that most of the parents were not well aware of their role for their children's education.

Dubey (2012) studied emotional intelligence and academic motivation among adolescents and reported positive relationship between emotional intelligence and academic motivation. The study also revealed that students with high, moderate and low academic motivation differ from one another on emotional intelligence.

Cerino (2014) studied the relationships between academic motivation, self-efficacy, and academic procrastination. Researcher hypothesized that academic motivation and self-efficacy together would have a strong negative relationship to academic procrastination among college students, with academic motivation having a stronger relationship than self-efficacy. A sample of 101 undergraduate students (36.6% men, 63.4% women; $M = 20.76$, $SD = 2.54$, years of age) at a Northeastern public liberal arts university participated in this study. Significant negative correlations of medium to large effect sizes between academic procrastination and three types of intrinsic, one type of extrinsic academic motivation, and general self-efficacy, were shown. In a hierarchical regression model, academic motivation predicted academic procrastination, but self-efficacy did not make a unique contribution to the model beyond the variance accounted for by academic motivation.

Bedel (2016) explored academic motivation, academic self-efficacy and attitudes toward teaching in pre-service early childhood education teachers and to investigate the relationships among those variables. Data were gathered through questionnaires administered to 251 pre-service early childhood education teachers. Results indicated that academic motivation was significantly related to academic self-efficacy. Although participants had high levels of positive attitudes toward teaching, those attitudes neither related to the academic motivation nor to the academic self-efficacy. In addition, regression analyses revealed that academic self-efficacy was the only meaningful predictor of academic motivation.

Laur (2017) analysed empirically the main and interaction effect of academic motivation (high, average and low academic motivation) and locality (rural and urban) on biology achievement among senior secondary school students. Results of the study revealed that the main effects of academic motivation as well as locality were found significantly associated with the academic performance of the students. Further the interaction effect of academic motivation & locality on the achievement was found significant. The study confirms the importance of academic motivation to academic achievement of the students. Thus it can be concluded by making insightful suggestions and recommendations to the authorities, policy makers, schools, teachers, in helping students to enhance their motivation to improve their academic performance.

III. MATERIALS AND METHODS

Sample: The final sample of the study consisted of 120 school students (60 of each gender and area) of government senior secondary schools of Shimla District.

Tool employed for Data collection: To collect the requisite data the investigator used the following tool:

- **Academic Motivation Scale** developed and constructed by the investigator herself.

The inventory has been designed to assess the level of academic motivation (intrinsic and extrinsic) among adolescents and adults. Split half method was used to determine the reliability of the scale. Component wise split half reliability was 0.84, 0.80 and 0.87. The present scale contains 56 items out of which 24 items are of intrinsic academic motivation and the remaining 32 items are of extrinsic academic motivation which can be easily scored by hand. Scale consists of 5 alternative responses for each statement that is 1) Strongly Agree, 2) Agree, 3) Undecided, 4) Disagree, 5) Totally Disagree. For the purpose of scoring the statements are given a score of 4, 3, 2, 1 and 0 respectively. Hence the higher the score, the higher would be the level of academic motivation and vice-versa.

Statistical Technique used: For the analysis and interpretation of data the Analysis of Variance (ANOVA) was applied.

Analysis and Interpretation of Data

In order to study the main effects of type of gender and area of sampled school students on the academic motivation scale, statistical technique of analysis of variance (2x2), factorial design involving two levels of gender i.e. male and female and two types of area i.e. rural and urban) was applied. Total scores and means of intrinsic academic motivation of school students with respect to their gender and area are given in the table 1 as follows.

TABLE 1. Gender and Area-wise Total Scores and Means of Intrinsic Academic Motivation of school students

Gender Area	Male	Female	Total
Rural	2188 (72.93)	2289 (76.30)	4477 (74.61)
Urban	2050 (68.33)	2271 (75.70)	4321 (72.01)
Total	4238 (70.63)	4560 (76.00)	8798 (73.31)

Table 1 reveals that female of rural area have the highest mean score i.e. 76.30 and the male of urban area have the lowest mean scores i.e. 68.33.

TABLE 2. Summary of Analysis of Variance

Sources of Variance	Sum of Squares	df	Mean Square	'F'
Gender	864.03	1	864.03	7.67**
Area	202.79	1	202.79	1.79
Gender x Area	120.09	1	120.09	1.06
Error Variance	13069.14	116	112.665
Total Sum of Squares	14256.05	119

** Significant at 0.01 level of significance

Main Effects

a) **Main Effect of Gender:** Table 2 reveals that the calculated value of 'F' ratio for the main effect of gender of school

students on intrinsic academic motivation is 7.67 for df 1 and 116, which is more than the 'F' table value at 0.01 level of significance. Hence the hypothesis no.1 'Intrinsic academic motivation of school students will not differ significantly with respect to their gender' is not retained. Thus it is interpreted that male and female school students do not possess equal level of intrinsic academic motivation. Further the 't' value was calculated by applying 't' test and the obtained value is 2.77 at df 119 which is highly significant at 0.01 level of significance. Thus it is concluded that two groups differ from each other significantly.

b) **Main Effect of Area:** Table 2 reveals that the calculated value of 'F' ratio for the main effect of area of school students on intrinsic academic motivation is 1.79 for df 1 and 116, which is less than the 'F' table value even at 0.05 level of significance. Hence the hypothesis no.2 'Intrinsic academic motivation of school students will not differ significantly with respect to their area' is retained. Thus it is interpreted that school students belonging to rural and urban area possess equal level of intrinsic academic motivation.

Interaction Effect

Interaction Effect of Gender and Area: Table 2 reveals that the calculated value of 'F' ratio for the interaction effect of gender and area of school students on intrinsic academic motivation is 1.06 for df 1 and 116, which is less than the 'F' table value even at 0.05 level of significance. Hence the hypothesis no.3 'Intrinsic academic motivation of school students will not interact significantly with respect to their gender and area, is retained. Thus it is interpreted that male and female school students of rural and urban area do not interact significantly.

Total scores and means of extrinsic academic motivation of school students with respect to their gender and area are given in the table 3 as follows.

TABLE 3. Gender and Area-wise Total Scores and Means of Extrinsic Academic Motivation of school students

Gender Area	Male	Female	Total
Rural	2571 (85.70)	2751 (91.70)	5322 (88.70)
Urban	2559 (85.30)	2569 (85.63)	5128 (85.46)
Total	5130 (85.50)	5320 (88.66)	10450 (87.08)

Table 3 reveals that female of rural area have the highest mean score i.e. 91.70 and the male of urban area have the lowest mean scores i.e. 85.30.

TABLE 4. Summary of Analysis of Variance

Sources of Variance	Sum of Squares	df	Mean Square	'F'
Gender	300.83	1	300.83	1.41
Area	313.63	1	313.63	1.47
Gender x Area	240.84	1	240.84	1.13
Error Variance	24757.87	116	213.34
Total Sum of Squares	25613.17	119

Main Effects

a) **Main Effect of Gender:** Table 4 reveals that the calculated value of 'F' ratio for the main effect of gender of school

students on extrinsic academic motivation is 1.41 for df 1 and 116, which is less than the 'F' table value even at 0.05 level of significance. Hence the hypothesis no.4 'Extrinsic academic motivation of school students will not differ significantly with respect to their gender' is retained. Thus it is interpreted that male and female school students possess equal level of extrinsic academic motivation.

b) *Main Effect of Area:* Table 4 reveals that the calculated value of 'F' ratio for the main effect of area of school students on intrinsic academic motivation is 1.47 for df 1 and 116, which is less than the 'F' table value even at 0.05 level of significance. Hence the hypothesis no.5 'Extrinsic academic motivation of school students will not differ significantly with respect to their area' is retained. Thus it is interpreted that school students belonging to rural and urban area possess equal level of extrinsic academic motivation.

Interaction Effect

Interaction Effect of Gender and Area: Table 4 reveals that the calculated value of 'F' ratio for the interaction effect of gender and area of school students on intrinsic academic motivation is 1.13 for df 1 and 116, which is less than the 'F' table value even at 0.05 level of significance. Hence the hypothesis no.6 'Extrinsic academic motivation of school students will not interact significantly with respect to their gender and area, is retained. Thus it is interpreted that male and female school students of rural and urban area do not interact significantly.

IV. CONCLUSIONS

- 1) School students differed significantly in intrinsic and extrinsic academic motivation w.r.t. their gender.
- 2) School students not differed significantly in intrinsic and extrinsic academic motivation w.r.t. their area
- 3) Gender x area had no combined effect on intrinsic and extrinsic academic motivation of school students even at 0.05 level of significance.

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