



## “INTRINSIC MOTIVATION AND SELF-REGULATION: A COMPARATIVE ANALYSIS OF GOVERNMENT AND PRIVATE SCHOOL STUDENTS SHAHEED BENAZIRABAD”

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### Abstract:

The present study was designed to compare the intrinsic motivation and self-regulation of students of government and private schools. This was a quantitative, cross-sectional survey research with a comparative research design. A total of three hundred (n=300) students of government schools (n=150) and private schools (n=150) were the sample for this research. The sample was recruited from ninth and tenth-grade students of schools at Shaheed Benazirabad. Intrinsic Motivation Inventory and Academic Self-Regulation Questionnaire (SRQ-A) scales were used to collect the data. Our research adds up insight into the relationship between intrinsic motivation and academic self-regulation among secondary school students in Shaheed Benazirabad. The finding of the study established that the intrinsic motivation status was higher among of government school-going students. The difference across gender was also signified; the female students were intrinsically motivated more than male students. The findings of the study will help the academic sector, as well as parents and teachers of Shaheed Benazirabad, to better understand the problems of school students and the impact of the learning environment and problems of students especially in understanding and highlighting the need for awareness and training of self-disciplining to students.

**Keywords:** *Intrinsic motivation inventory, academic self-regulation, private school, government school, Shaheed Benazirabad.*

### Introduction:

Children constitute the hope for any nation in its future. They are the most vital resource which needs ultimate attention and focus to understand their problems and help them to flourish positively. Educational psychologists have focused more of their attention on study-related issues during the period of schooling of children. Intrinsic motivation is an internal sense and personal drive to involve oneself in some activity, where its satisfaction is created personally rather than by external rewards, pressures, and this refers to curiosity, interest, and personal satisfaction needed to have lifelong love for learning (Yahnke et al., 2024). Johansen et al., (2023) in their study recently discovered that due to the growing need, students should be granted with intrinsic motivation and self-regulation not only for the purpose of academic success but also for all those who will pursue their aim at lifelong learning and personal development. Self-regulation is defined as a cluster of cognitive, behavioral, and affective skills that serve to acquire, control, and direct the use of certain knowledge, including information about emotion-generative events.

Academically, self-regulated students achieve more and persist longer and bounce back in the face of obstacles by better regulating their learning processes and handling problems they might encounter effectively (Fan et al., 2024). The role of teachers and school administrators cannot be overemphasized in developing intrinsically motivated students with high levels of self-regulation. Teachers are role models and coaches that keep a learner interested in learning and arm them with the necessities of managing their own learning effectively. When there is insight into teachers' practices, attitudes, and beliefs about motivation and self-regulation for their students, designing specific interventions that cultivate student interest and autonomy becomes possible. Focused on self-regulation theory we want to know whether students of Shaheed Benazirabad district regulate their behavior as well as make sure that they were the teachers of choice when explaining why they consider, do their homework, play a portion in classroom dialogue or are they fair taking after the aspiration of their instructors on edge of their guardians, an obligation it since they are make-believe to do it.

**Intrinsic motivation:** According to Morris et al., (2022), intrinsic motivation is an activity that is done for the sake of pleasure and satisfaction rather than extrinsic reward or motivation.

In secondary education, there has been a very important role of intrinsic motivation in developing love for learning, a sense of curiosity, and being eager to put effort into learning. When students are so genuinely motivated, they tend to be patient and very creative with the reasoning's of learning so that experiences have meanings, relevance, and meaning to what interests the students and aspire to. Offering choices and autonomy to explore enables students to own their learning, tap into topics that tell their own story, in addition to this, acknowledging student effort and achievement fosters skills and competencies sense of self, thus increasing their intrinsic motivation (Morris et al., 2022).

**Self-regulation learning:** As Morris et al., (2022) declare, "self-regulation encompasses the capacity to establish goals, keep track of progress, and regulate one's thoughts, feelings, and behavior to achieve the set goals", Self-management is fundamental in regulating learning internal projects to structure and address challenges such as procrastination and situational distractions that characterize high school and be sufficiently prepared to achieve it effectively.

### **Significance of the Study:**

School education is very important, as it forms the base of the whole educational life of the student. The skills acquired then shaped their abilities, success, and adaptation in higher years of education. The young students go through considerable hardships of learning in the schools, but that experience enhances the skill of learning. The academic environment of the government and private schools is quite different, which affects the behavior and ability to learn of the students. Fewer studies were conducted to address the problems of school students in Pakistan. In Shaheed Benazirabad no such study has been conducted regarding these variables on private and government school students, therefore the present study was designed. This study compares private and government high school students in intrinsic motivation and self-regulation. These skills would help better adjustment and academic success in the future. Findings of this study will be helpful to the administrators, teachers, and parents in developing a better school environment to nurture the future of our country. The results will also be beneficial for approximating the extent to which the children are having the skills and consequently, how much input is needed to increase the extent of learning and education in schools.

### **Objectives of the study**

- To assess the impact of academic self-regulation on intrinsic motivation.
- To assess differences in intrinsic motivation and academic self-regulation between students of private and government high schools of Shaheed Benazirabad city.
- To measure gender differences in academic self-regulation of participants.

- To assess the students on all facets of motivation including, interest, perceived choice, perceived competence, pressure and tension.
- To assess gender differences in all facets of motivation including, interest, perceived choice, perceived competence, pressure and tension.

### **Hypotheses of the Research**

- The academic self-regulation would predict intrinsic motivation common would be.
- The students of private schools would have higher intrinsic motivation and academic self-regulation than government school students.
- There would be common gender differences in intrinsic motivation and academic self-regulation of students.
- There would be common gender differences in the sub-scales of intrinsic motivation.
- There would be common differences between government and private school students on perceived choice, perceived competence, interest/joy, pressure/ tension and value/usefulness facets of intrinsic motivation.

### **Research Gap:**

Memon et al., (2018) studied the motivation of medical students in Shaheed Benazirabad and its impacts on their sports capacities but no study so far has been conducted to investigate the impact of intrinsic motivation and self-regulation on academic achievement and learning among the school-going students of Shaheed Benazirabad. This research gap is associated by the present study between discovery of knowledge and relevant practice in the field of school education.

### **Method:**

**Research Design:** The Current study was quantitative, cross-sectional survey research with a comparative study design. **Sample:** The total sample of the study was three hundred (n=300) students of government schools (n=150) and private schools (n=150). The sample was recruited from the ninth and tenth-grade students of schools at Shaheed Benazirabad. The sample size was calculated through the Rao Soft Calculator for sample size. The age range of the participants was between 14 to 15 years (mean age = 15.22). Data were collected through simple random sampling. We approached three government schools, but we got permission from two schools and for private schools we approached four private schools, luckily, we got permission from four schools.

**Inclusion criteria:** Participants were included in the research if: They were 14- to 16-year age group. The student attends the government or private school. Participants have the minimum level of matriculation qualification.

**Exclusion criteria:** The participants were excluded from the study if: Their education was below matriculation. Age was less than 14 years or more than 16 years above. Any physical or psychological illness was excluded.

**Measurements:** The taking after-assessment measures were developed within the study.

**Demographic information form:** The demographic information form included all the obligatory essentials joined to participant evidence at the time of the study. Age, gender, school name, government or private, class, level of education of father and mother, occupation of father and mother residential area and social status variables were included.

### **Scales were used in this study:**

**Intrinsic motivation inventory:** It was developed by Ryan et al., (1983) this is a multidimensional self-report measure that assesses the subjective experience of research participants. This instrument has six subscales. a) interest/interest, b) perceived skill effort c) value/usefulness d) feeling pressured. e) Stress and, f) cognitive choice. The Cronbach alpha reliability of scales is  $r = 0.91$  (Ryan, Mimis, & Koestern (1983). It consists of 29 items. In this study, the Urdu version of this instrument, which has been translated and adapted by Malik and Parveen, 2015, has been used. The reliability of the translated version  $r = 0.84$  was reported by Malik and Parveen, 2015.

**Academic self-regulation questionnaire (SRQ-A):** The academic self-regulation questionnaire was developed by G.C. William and E.L. Deci in 1996.

This questionnaire assesses student's ability to self-regulate in performance academic work at school. The scale was created for students in late basic and high school students. It inquires four questions approximately why students lock in in several school-related behaviours. After every question, there are a number of responses which represent the 4 regulatory styles. It has four subscales. Malik and Parveen used this scale in its Urdu version for this study in 2015. The alpha reliability of the adapted scale is measured at 0.82 by Malik & Parveen, 2015.

### **Procedure:**

Approval was subsequently obtained from the Department of Psychology and Board of Advance Studies at the University of Sindh, Jamshoro, Pakistan before a data collection permission letter is issued by the Department of Psychology, University of Sindh Jamshoro to the researchers to carry out the research. The letter authenticates the identity of the researcher and the subject matter of the study. Letter of authorization was sent to all the relevant authorities of different schools with a request for their support. At the beginning, both government and private high schools were come up to and asked them for permission just before collecting data. Overall of six government and private high schools were authorized to collect data. Then the researcher contacted each school and sampled groups in the classroom. All members were fully explained the cause of this study, and they were given informed consent.

The researcher distinguished between members agreeing to consideration and exclusion criteria. Members were assured of all their data. To participate in the research, every member was supposed to present a valid consent form. After agreeing to participate in the study, they were asked to fill the demographic data forms. They then filled in the questionnaires. All members were appreciated for the cooperation. Survey questions totaled for approximately 45 to 60 minutes for each respondent.

**Ethical considerations:** The study is accompanied in obedience to research ethics by following the ethical principles then codes of conduct. The scale used has sought permission from the right authors via email and received permission. Preceding endorsement has been entreated from altered school authorities for data collection. Once approved, data collection officially initiates. Participants were knowledgeable of the persistence of the study and each participant was requested to submit an informed consent form in the local language.

### **Result:**

Both descriptive and inferential statistics were involved. First of all, the results of the pilot study have been illustrated ( $N=80$ ), which was carried out for the reliability analysis of the scales of the variables of the current study. Then, the main research has been carried out ( $N=220$ ). All data gathered from the sample were analyzed in SPSS v.25. The level of significance for the testing of hypotheses was set at 0.05.

For demographic information, the study applied descriptive statistics. T-tests were used in this study to find out the differences between the dependent and independent variables of the current study. Linear regression analysis was applied for determining the predictive relationship between intrinsic motivation and self-regulation.

### Pilot Study

The pilot study aimed at testing the reliability of research equipment instruments, namely, the intrinsic motivation scale and the self-regulation questionnaire.

**Table 4.1**

<i>Reliability Statistics of Intrinsic motivation and self-regulation</i>		
	Cronbach's Alpha	Items
intrinsic motivation	0.71	36
self-regulation	0.83	14

Table 4.1 presents the reliability coefficients (Cronbach’s Alpha) of the current research tools, namely intrinsic motivation inventory and self-regulation questionnaire (N=80). The Cronbach’s alpha reliability of the scale of intrinsic motivation came to  $r = 0.71$ , which shows average reliability, and the Cronbach’s alpha value of the scale of self-regulation came out to  $r = 0.83$ , indicating good reliability of the scale.

### Main study

#### Demographic characteristics of the sample

Table 4.2 shows the demographic characteristics of the sample in terms of frequency numbers and percentages. Variables measured by demographics included gender, age, "government and private" school systems, education (9th and 10th grades), father and mother's education, and mother's occupation (housewife or working) and the sample's socioeconomic status of this study.

In this study, both genders were equally represented. The age range was 14 to 16 years (mean age = 15.28). The respondents were students of classes 9<sup>th</sup> and 10<sup>th</sup>. A large proportion of the study represented the father’s education was Intermediate (N=50, 22.7%) and 45 % of mothers (N=99) were uneducated. Most of the participants’ mothers were housewives (N=211, 95.9%). The study participants had monthly family income between 25,000 PKR to 70,000 PKR or above, indicating low-to-intermediate socioeconomic status (N=20, 0.91%).

**Table 4.2 a Demographic characteristics of the participants**

Demographic characteristics	N = 220	%
<b>Gender</b>		
Male	110	50.0
Female	110	50.0
<b>School System</b>		
Government	110	50.0
Private	110	50.0
<b>Education (Class)</b>		
Ninth	90	40.9
Tenth	130	59.1
<b>Father’s Education</b>		
No Education	30	13.6
Primary	18	08.2
Middle	14	06.4
Matric	34	15.5

Intermediate	50	22.7
Bachelor	25	11.4
Master	45	20.5
Other	04	01.8
<b>Mother’s Education</b>		
No Education	99	45.0
Primary	28	12.7
Middle	07	03.2
Matric	31	14.1
Intermediate	31	14.1
Bachelor	13	05.9
Master	11	05.0
<b>Profession (Mother)</b>		
Working	09	04.1
Housewives	211	95.9
<b>Socio-Economics Status</b>		
Lower (Below Rs.25,000)	20	09.1
Middle (> Rs.25,000 up to Rs.80,000)	181	82.3
Upper (>Rs.80,000)	19	08.6

### Hypotheses Testing

For the hypotheses testing, Linear regression analysis was accomplished to study the impact of self-regulation on intrinsic motivation. Independent-sample t-test was accomplished to assess differences in the motivation and self-regulation between government and private school students as well as to evaluate gender differences in these variables.

#### **H1: The academic self-regulation would predict intrinsic motivation would be.**

For the first hypothesis, linear regression analysis was used to assess the effects of self-regulation on intrinsic motivation.

**Table 4.3** Linear regression analysis of self-regulation and intrinsic motivation

<i>Variables</i>	<i>Unstandard B</i>	<i>Standardized B</i>	<i>SE</i>
<i>IMI</i>	.711**	0.288	0.426
<i>F</i>	19.74		
<i>R2</i>	0.08		

*Note: N = 220, \*\* p < 0.01*

Table 4.3 shows the impact of self-regulation as a predictor of intrinsic motivation from the results in table above, self-regulation positively predicts intrinsic motivation with  $\beta = 0.288$ ,  $p < 0.01$ . The R-squared value was at 0.08, which means that the predictor explained the variance of 8% to the outcome variable with  $F(1, 218) = 19.74$ ,  $p < 0.01$ . It suggests that the 8% motivational gap may be attributed to self-regulation.

**H2:** The students of private schools would have higher intrinsic motivation and academic self-regulation than government school students.

**Table 4.4** *t-test of the scores of government and private school students on IMI and SRQ*

Scale	Govt. school students		Private school students		t-test	p
	Mean	S.D.	Mean	S.D.		
IMI	167.04	14.75	162.70	12.47	4.33**	0.01
SRQ	66.63	5.20	63.70	6.98	2.12*	.037

Note:  $df = 118$ , \*\*  $p < .01$ , \*  $p < .05$

Table 4.4 Descriptive statistics of study variables on educational level between government and private students. Differences in intrinsic motivation and self-regulation are found to be important between the students of government schools and private schools, respectively. The mean value of the motivational and self-regulatory aspects of government school students is more significant compared to private schools (IMI M = 167.04; SR M = 66.63); respectively, SR M = 63.70. Mean differences depicted those students of government schools were more motivated and self-regulated. Therefore, the hypothesis which said that students in private schools are of greater intrinsic motivation and academic self-regulation compared to government school students was not accepted.

**H3:** There would be significant gender differences in intrinsic motivation and academic self-regulation of students.

**Table 4.5** *Comparison between IMI and SRQ with reference to gender*

Scale	Male (N=110)		Female (N=110)		t-test
	Mean	S.D	Mean	S.D	
IMI	162.06	16.26	165.67	10.81	2.98**
SRQ	63.32	6.64	66.45	3.70	3.12**

Note:  $df = 218$ , \*\*  $p < .01$

(IMI= Intrinsic Motivation Inventory, SRQ= Self-Regulation Questionnaire)

Table 4.5 shows the t-test values of the research variables concerning gender differences among students in the aspect of self-regulation. According to the outcome, it illustrates that female students attained a higher mean scores for intrinsic motivation status relative to male students; the mean for females was M = 165.6, Sd = 10.81 and for males, M = 163.06, Sd = 10.81 respectively. The mean scores of self-regulation were low in the males students (M = 63.32, Sd = 6.65) as compared to female students (M = 66.45, Sd = 3.70) respectively. This outcome is in favour of our hypothesis 3 which was stated that the gender differences will be significant with regard to intrinsic motivation and academic self-regulation skills in the students. Therefore, the hypothesis is accepted.

IMI Subscale analysis was performed for the government and private school students as well as for male and female students.

**H4:** There would be significant gender differences in the sub-scales of intrinsic motivation.

**Table 4.6** *Mean, SD and t-values of the subscales scores of the male and female participants on Intrinsic Motivation Inventory*

Gender	Gender	N	Mean	St. Deviation	t-value
Interest/Enjoyment	Male	110	30.45	4.579	2.25**
	Female	110	32.32	3.754	
Perceived choice	Male	110	31.89	5.903	4.76***
	Female	110	34.23	4.469	
Perceived competence	Male	110	34.07	3.253	2.97**
	Female	110	30.88	2.805	

Pressure/tension	Male	110	16.15	7.795	2.11**
	Female	110	18.25	3.589	
Value/usefulness	Male	110	32.50	2.904	2.43**
	Female	110	36.11	2.238	

Note:  $df = 218$ ; \*\*\* $p < .001$ , \*\* $p < .01$

Table 4.6 presents a t-test of the scores of male and female participants on sub-scales of the intrinsic motivation scale. Analysis shows significant gender differences, that male students are more assured about their competence than females. Female scores were higher on Interest/enjoyment, perceived choice and value or Usefulness and pressure/ tension than male students.

**H5:** There would be common differences between government and private school students on perceived choice, perceived competence, interest/joy, pressure/ tension and value/usefulness facets of intrinsic motivation.

**Table 4.7** Mean, SD and t-values of the subscale scores of the government and private school students on Intrinsic Motivation

Gender	School	N	Mean	S.D	t-value
Interest/Enjoyment	Govt school	110	39.79	4.63	2.44**
	Pvt school	110	32.97	3.63	
Perceived choice	Govt school	110	35.06	5.52	2.89**
	Pvt school	110	30.05	4.72	
Perceived competence	Govt school	110	33.70	3.14	2.08**
	Pvt school	110	31.25	2.96	
Pressure/tension	Govt school	110	19.54	7.56	1.06
	Pvt school	110	19.76	4.70	
Value/usefulness	Govt school	110	30.85	2.86	.544
	Pvt school	110	31.65	2.31	

Note:  $df = 218$ , \*\* $p < .01$

Table 4.7 t-test scores on the facets of intrinsic motivation that government school students are higher on perceived competence, interest and perceived choice than private school students. Pressure/Tension and value/ Usefulness were similar in both groups as a non-significant t-value was found for these facets.

### Discussion:

This study is conducted to know the comparative analysis of intrinsic motivation and academic self-regulation of private and government sector schools in Shaheed Benazirabad city. Results have proposed that there is a positive correlation between intrinsic motivation and self-regulation. It is also supported by the results of a study conducted by Xiao et al., (2024) in which intrinsic motivation becomes a more influential factor to educational outcomes, especially in terms of the involvement, success, and experience of learning of students. Moreover, this is the main difference between intrinsic and extrinsic motivation: this comes from within and is sustained by an innate desire for excellence, curiosity, and personal growth rather than from externals such as rewards or pressures which is termed as extrinsic motivation. As intrinsically motivated, the individual gets more involvement in learning activity. They become active seekers out on possibilities to explore, discover, or go deeper into topics that strike them. They will actively engage more often in class discussions, conduct inquiries, and make continued effort in academic performance (Kheang et al., 2024). Besides, as stated by Pelikan et al., (2021), the Findings of the survey indicated that intrinsic motivation is the actual



motivation that impacts the academic results of the students. Outcomes of the study indicated a significant difference in intrinsic motivation and self-regulation between students studying in government schools and those in private schools. This indicates that the self-regulation and motivation of government school students are high in comparison with their private school counterparts. This is an affirmation of previously done literature (eg. by Abah et al., 2022). The reason may be that the government conducted the training of government school teachers; hence it left a positive impact upon the students there.

Results also reflect that government school students are more on perceived competence, perceived choice, and enjoyment. The findings are in consonance with earlier research work like the findings of Teppo et al., (2021) demonstrate the comparison of intrinsic motivation and beliefs about science learning (6th grade) and the International PISA test (9th grade). It depicts statistically significant differences concerning subcomponents.

This study also tends to see the difference among male and female students of secondary government and private schools in terms of intrinsic motivation and academic self-regulation, and the result is showing a significant difference among both groups.

Intrinsic motivation and academic self-regulation were higher in female students as compared to male students. The previous literature also shares common grounds with the findings of current the study for example Li et al., (2024). Similarly, self-regulation in youth is that which they apply to deal even better with adversities and sufferings and when, for instance, resilient students are faced with obstacles at school, personal problems, or outside influences, they utilize self-regulation to maintain emotional balance and solve the problems in an overwhelming manner while keeping moving towards their goals. Ultimately, they come out stronger and more resilient Sheehan-Klein, M. (2024). Another study on self-regulated learning towards improving students' outcome achievement by Cheng, E.C.K. (2011) carried out in Hong Kong, indicated that the strong pressure to the student's performance came from action control while monitoring the academic motivation, learning strategies, and goal setting (Cheng, 2011).

### **Conclusion:**

The current study findings suggested that intrinsic motivation is quite strongly related with self-regulation especially among the students in the secondary school setting. It was also concluded that private school students reveal higher intrinsic motivation as well as academic self-regulation compared with their complements in the government school setting. Government school students are motivated though there are fewer facilitated as compared to private schools but they are involved in their self-academic level so they are not demotivated if they get a disciplined environment by the teacher's training to build a better environment so these students will more excel in higher studies and in the private school students to have self-regulation because of their school's environment as they are regulated by following the rules of the schools. In private schools parent and teacher meeting happens time to time and they involve the parents so the private school students are in a controlled environment. Interestingly, female students were reported to have high intrinsic motivation and academic self-regulation as compared to males. Private schools mostly appoint students without any criteria of education and teaching skills. They even appoint the intermediate pass students as teachers on a low salary, which is their benefit not of the students. This also can be the main cause of low motivation and regulation of the students.

### **Implications of the study:**

The practice taken by the Education Department to give updated training to teachers has fruitful effects, which has been documented in this study as government school students have better intrinsic motivation than private school students. Such practice should be continued in the future and be done in all institutions irrespective of whether they are government or private institutions. It has been suggested that certain educational and skill requirements for the

appointment of teachers should be formulated for the private schools. This is because, unlike the majority of the private schools, most of the private schools do not have any major criteria to be followed. Female students have been reported to be low in self-competence and high on perceived pressure and tension. Male students have been found to possess low perceived choice; therefore, awareness lectures should be arranged in schools to guide the students about the positive self-concept and its effects on their academic performances. Such awareness about self-control should also be provided to students in schools because there the workshops and seminars could be arranged. It helps in developing a mature and positive personality and also affects positively the achievement in academics.

**Strengths of the Study:** Present research contributes to the existing literature towards a better understanding of the intrinsic motivation and self-regulation of private and government school students in Shaheed Benazirabad city. The findings will help education department policymakers as well as parents and teachers for a better understanding of the learning capability of school-going children. This study represents the population of a less representative area that may help in emphasizing the needs of these areas.

**Limitation of the study:** This comparative study was conducted in the city of Shaheed Benazirabad only. Thus, the findings are limited to this area only, and it cannot be generalized to other areas.

**Future recommendations:** Further research should be accommodated by an even larger representative sample of the Pakistan population that must include major cities of Pakistan. Future studies must address the gap in the present study, which is qualitative research to learn much more about the learning problems of school-going students.

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