

Intrinsic Motivation of the High and Low Academic Achievers

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Abstract Present study was conducted to analyze the differences in the intrinsic motivation of the high and low academic achievers. Sample (n = 600) of the study was comprised of high academic achievers (n= 300; male=150, female= 150) and low academic achievers (n= 300; male= 150, female= 150). Age range of the participants was 17-19 years. Sample of the high and low academic achievers was collected through purposive sampling technique from different male and female colleges of Hyderabad city of Pakistan. Intrinsic Motivation Inventory was used for data collection. *t*-tests were computed to measure the differences in the intrinsic motivation of the high and low academic achievers and gender differences in the motivation of high and low achievers. Findings revealed significant differences in the intrinsic motivation of the high and low academic achievers and more tension in the low academic achievers. High achiever females found more competent, consider studies more useful and take some more pressure of completing academic tasks than the male high achievers.

Keywords: *intrinsic motivation, high and low academic achievers*

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1. Introduction

The basic aim of education is to nourish the mind and to develop the disciplined and mature personality of students for the betterment of society generally and for the individual specifically [2]. It prepares the students to meet the challenges of the future successfully. The academic potential of students reflected through academic achievement which reflects their intrinsic motivation towards studies. Intrinsic motivation is significantly related with the completion of academic learning tasks. According to Self Determination theory (SDT) intrinsic motivation is the basic force which energizes an individual to attain the goals successfully. When students are motivated intrinsically they feel joy and satisfaction in academic tasks and studies while extrinsic motivation refers to do something for any external reward or it is more instrumental in nature whereas amotivation is like learned helplessness [9]. Internally motivated students remain engage in learning at school or college; exert continuous effort and concentrate on understanding and completing the learning tasks. They exhibit generally positive emotions during ongoing learning process. Intrinsic motivation operates on the process of internalization [7]. Positive feedback from the environment leads to competence and increases intrinsic motivation while negative feedback decreases it [6]. When students feel autonomy and perceive competence they perform much better in their studies than those who perceived less autonomy [9]. Findings of the several studies [14] had confirmed that intrinsic motivation plays significant role in the development of study habits and

academic achievement. Verbal praise by teachers and parents (social approval) enhance the intrinsic motivation of the students as compared to other external rewards such as certificates or medals or money [6]. Findings of the researches have suggested that training to set proximal goals, cognition of self-competency, having explicit goals rather than vague ones and self-satisfaction are some important aspects to develop intrinsic motivation. Due to the external rewards interest get lowered if these are given regardless of the competency of the performance [3]. Intrinsic motivation gives pleasure, increases curiosity and personal interest in the task whereas extrinsically motivated behaviour is external and interjected [8]. When students are intrinsically motivated, they feel interest and enjoyment in what they are doing and have a sense of capability and determination. They don't feel tension, stress and anxiety [7]. Intrinsically motivated individuals do not give up in the difficult circumstances and they try their best to achieve the goals. Previous studies [4,11,18] had indicated gender differences in the intrinsic motivation. Findings suggested that females have more intrinsic motivation as compared to male students. Male students are less sensitive and think more analytically than the females. On the other hand some studies indicated that male and females have same intrinsic motivation [19]. It was hypothesized that (a) there would be significant differences in the intrinsic motivation of the high and low academic achievers. (b) The score of the low academic achievers would be higher on the pressure/tension subscale of the intrinsic motivation inventory than the high academic achievers. (c) There would be no gender differences in the intrinsic motivation of the male, female high and low academic achievers.

2. Method

2.1. Participants

Sample (n=600) of the present study was comprised of high (n=300; male=150, female=150) and low academic achievers (n=300; male=150, female=150) participants studying in different colleges of Hyderabad, Pakistan. Age range of the participants was 16-19 years (Mean age=17.89 yrs, SD= 11.47). The data of the participants was collected from ten different male and female colleges of the Hyderabad city of Pakistan. Sample was collected through purposive random sampling technique because data was collected from those participants who earned more than seventy percent marks (high academic achievers) and less than sixty percent marks (low academic achievers) in the tenth grade. The marks were obtained from the result mark sheets issued by the Board of Higher and Secondary Education (BISE).

2.2. Procedure

For the data collection, permission from the higher authorities (Principals or Head Mistresses) of the different colleges was taken. Information about the academic achievement of the students in the matriculation (Grade 10th) was collected from the administration department of the concerned colleges. Before the administration of the questionnaires rapport was developed and informed consent was taken from the participants. Intrinsic motivation inventory was administered in the classrooms. Instructions were given to the participants verbally as well as in the written form as same were printed on the instrument. The participants were encouraged to ask any question if they have any.

2.3. Measure

In the present study intrinsic motivation inventory was used to measure the differences in the intrinsic motivation of the high and low achiever participants.

(1) Intrinsic Motivation Inventory (IMI)

The IMI was developed by Ryan and Connell (1989) to measure the intrinsic motivation of the students. The Intrinsic Motivation Inventory (IMI) is a standardized scale to measure the participants' subjective feelings about academics. The inventory has six sub-scales: (a) pressure/tension, (b) perceived choice, (c) value/usefulness, (d) interest/enjoy, (e) perceived competence, (f) effort/importance. Response category consists of six-point Likert like scale ranging from "Always true" to "Never true". The scores range from one to six for all items. Some items were scored in reverse direction. IMI was adapted and back translated in Urdu for the present study. Then it was administered on a sub-sample for the estimation of the reliability. The alpha reliability coefficient came out 0.81, which shows the reliable status of the inventory.

3. Analysis of Results

For the analysis of the results t-tests were computed to measure the differences in the intrinsic motivation of the high and low academic achiever participants.

Table 1. Mean, SD and t-values of the scores of the high and low academic achievers on the Intrinsic Motivation Inventory

IMI Subscales	High achvrs		low achvrs		t-values
	Mean	SD	Mean	SD	
Pressure/Tension	26.04	4.02	31.25	2.58	12.38*
Per. Choice	31.54	5.25	32.05	4.14	1.35
Value/Usefulness	31.48	3.87	35.58	3.65	6.13*
Interest/Enjoy	30.81	4.57	32.72	4.01	5.31*
P.Competence	26.15	5.22	21.41	5.28	4.73*
Effort/Importance	16.24	3.27	13.25	2.33	3.58*

df=598, p *<.001.

Table 1 is presenting the t-values of the scores of high and low academic achievers on different subscales of the intrinsic motivation inventory. Significant mean differences found nearly on all the subscales except perceived choice. On the scale of pressure and tension low achievers scored higher as compared to high academic achievers. It is indicating that low achievers perceived more tension and pressure than high achievers. Thus hypotheses 1 and 2 are verified.

Table 2. Means, SD and t-tests of the male (n=150) and female (n=150) high academic achievers on the IMI

IMI Subscales	Male H.A		Female H. A.		t-values
	Mean	SD	Mean	SD	
Pressure/Tension	15.45	3.29	17.27	4.30	2.83*
Per. Choice	32.74	4.70	30.25	5.48	4.20**
Value/Usefulness	37.05	3.44	39.99	4.19	2.89*
Interest/Enjoy	31.65	4.58	29.63	4.89	2.92 *
P.Competence	22.63	3.21	29.87	4.53	6.31**
Effort/Importance	23.00	4.59	30.65	3.67	7.91**

df=298, p *<.01, **<.001.

Table 2 is showing the t-values of the scores of male and female high academic achievers on the intrinsic motivation inventory. Results are indicating significant mean differences in the scores of the male and female high achievers on all the variables. Female participants have more perceived competence, more perceived usefulness of studies, do more efforts and have some more tension than the male high achiever participants. On the other hand the male participants have high perception for choice and more interest in studies as compared to female participants.

Table 3 is presenting the t-values of the scores of male and female low achievers participants on the intrinsic motivation inventory.

Table 3. Means, SD and t- values of male (n=150) and female (n=150) low achievers on the intrinsic motivation inventory

IMI Subscales	Male l. achvrs		Fmale l achvrs		t-values
	Mean	SD	Mean	SD	
Pressure/Tension	11.05	2.33	12.46	2.30	1.54
Per. Choice	32.42	3.41	31.75	4.56	1.44
Value/Usefulness	35.10	3.64	36.00	3.95	2.44
Interest/Enjoy	33.08	3.71	32.42	4.24	1.42
P.Competence	25.18	4.90	25.57	5.65	0.65
Effort/Importance	31.96	3.55	31.53	4.64	0.88

Table 3 is presenting the t-values of the scores of the male and female low academic achiever participants. Findings have revealed non-significant differences in the intrinsic motivation of male and female low achievers.

4. Discussion

Analysis of the results has indicated that high academic achievers are more intrinsically motivated as compared to low academic achievers. These findings of the present study are supporting the Self-Determination Theory (SDT) of intrinsic motivation [7]. These findings are in line with the previous studies [14,17]. Low academic achievers scored higher on the perceived pressure and tension which contribute significantly in poor academic achievement. This finding is consistent with previous studies [13] which had indicated significant positive relationship of tension and anxiety with the low academic achievement among students. Significant gender differences were found in the intrinsic motivation of male and female high achievers. Female high achievers are more competent, take studies seriously and take some more tension as compared to male high achievers. Intrinsic motivation serves as an engine to keep the students in the right direction. Intrinsically motivated students take their studies seriously therefore they set and follow a planned schedule to study and learn different subjects as well as they try to complete their assignments and other academic tasks regularly. This pattern of organized and managed studies positively influences their academic achievement. Intrinsically motivated students not only focus on studies but try to increase their knowledge or skills in other related areas which also contribute positively in the academic achievement. On the other hand those students who are less motivated internally do not study regularly, have no timetable of study but waste their precious time in other activities. They try to meet deadlines of submitting any assignment or academic activity in the last hours which decreases the standard of their completed work or task. Consequently they feel more pressure or tension before any assessment or examination and remain unable to concentrate on their studies. There is a cyclic relation between lack of intrinsic motivation, perceived pressure and tension, and poor study attitudes. Poor or low academic achievement in studies develops frustration which not only ceases the concentration but also leads to the feelings of learned helplessness. Thus it is suggested that students should be advised continuously to follow a regular time schedule for studies daily. And those students who remain unable to complete academic tasks successfully or show lower achievement must be focused in the earlier years of education. Teachers should try to motivate students especially the low achievers and guide them about organization and proper time management skills.

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