Motivational Orientations in Relation to Academic Performance among Adolescents

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ABSTRACT

Psychological theory has traditionally been more concerned with intrinsic than extrinsic motivation, in attempts to explain behaviors such as exploration and challenge seeking, which has no clear external reinforcements. Conceptions of extrinsic motivation include orientations toward money, recognition, competition and the dictates of other people. Similarly, conceptions of intrinsic motivation include challenge, enjoyment, personal enrichment, interest and self-determination. Investigation into stable intrinsic and extrinsic orientations can have important consequences for psychological research. A great deal of social psychological research has documented striking differences in task performance between intrinsically and extrinsically motivated individuals.

Therefore, the present investigation was aimed to study External and Internal Motivational orientation in relation to the academic performance among adolescents. For this purpose Motivational orientation was assessed by using Work preference Inventory by Amabile et al. (1994) and for academic performance, student's last year aggregate percentage was taken. The test was administered on 110 students (55 males and 55 females) in the age range of 18-21 years. Descriptive statistics and Correlational analysis was used to analyze the data. Results will be discussed.

Keywords- Intrinsic and Extrinsic Motivation, Academic Performance, work preference.

One thing that is most certain about the past as well as the future is the importance of motivation in the practice of education. Therewith, it should be an important area for educational research. It is probably one of those enduring issues that need to be confronted again and again as it lies at the heart of teaching and learning (Maehr & Meyer, 1997). It concerns energy, direction, persistence and equifinality- all aspects of activation and intention. Motivation has been a central and perennial issue in the field of psychology, as it is at the core of biological, cognitive, and social regulation (Ryan & Deci, 2000). Motivation can be defined as the process by which goal-directed activity is instigated and sustained. When psychologists speak of motivation, they typically refer to the reasons that individuals are aroused to action.

Over the past 50 years, two quite different kinds of reasons have emerged in the thinking of psychologists (Covington, 2000). Some people seem to be driven by

a passionate interest in their work, a deep level of enjoyment and involvement in what they do. By contrast, some people seem to be motivated more by external inducements in their work (Amabile et al.,1994). Individuals are said to be driven to act for extrinsic reasons when they anticipate some kind of tangible pay off, such as good grades, recognition, or gold stars. These rewards are said to be extrinsic because they are unrelated to the action. In effect, the activity becomes a means to an end. Individuals are said to be intrinsically motivated when they engage in activities for their own sake. In this instance, the reward resides in the actions themselves and the repetition of an action depends on the satisfaction derived from overcoming a personal challenge, learning something new or discovering things of personal interest (Covington, 2000). Intrinsic and extrinsic motivations are both state variables and trait variables as it can vary across situations and times and can be manipulated experimentally and also represents cross-situational and temporal stable individual tendencies to be intrinsically and extrinsically motivated. Thus, although a person's levels of intrinsic and extrinsic motivations fluctuate during daily activities as a function of environmental stimuli and opportunities, people differ in their average tendencies to be driven by the engagement of work and by some means-end factors that are extraneous to the work itself (Moneta & Siu, 2002). The issue of whether people stand behind a behavior out of their interests and values, or do it for reasons external to the self, is a matter of significance in every culture and represents a basic dimension by which people make sense of their own and others' behavior (Ryan & Connell, 1989).

Comparisons between people whose motivation is authentic (literally, self-authored or endorsed) and those who are merely externally controlled for an action typically reveal that the former, relative to the latter, have more interest, excitement, and confidence, which in turn is manifested both as enhanced performance, persistence, and creativity and as heightened vitality, self-esteem and general well-being (Ryan et al., 1995).

Investigation into stable intrinsic and extrinsic orientations can have important consequences for psychological research. A great deal of social psychological research has documented striking differences in task performance between intrinsically and extrinsically motivated individuals (Amabile et al., 1994). In laboratory experiments, extrinsically motivated individuals tend to show more impatient, rigid behavior in task engagement (Garbarino, 1975), poorer conceptattainment (McCullers & Martin, 1971), impaired complex problem solving (Glucksberg, 1962), increased functional fixedness on a set-breaking task (McGraw

attainment (McCullers & Martin, 1971), impaired complex problem solving (Glucksberg, 1962), increased functional fixedness on a set-breaking task (McGraw & McCullers, 1979). and lower levels of creativity in a variety of tasks (Amabile et al., 1990). These differences were demonstrated under temporarily induced intrinsic-extrinsic motivational states. However, it will be important to determine whether such performance differences can be demonstrated as a function of stable motivational orientations as well.

For generations, observers have extolled the virtues of learning for its own sake, not only because of the benefits of personal growth or enhanced well-being, but also because intrinsically based learning is the handmaiden and lead to a better, more efficient learning. For example, intrinsically engaged students are more likely than extrinsically driven students to employ deep level, sophisticated study strategies in their work (Ames & Archer, 1988). Perhaps most noteworthy for establishing causal, not merely correlational, relationships are studies in which students were randomly assigned to varying achievement conditions. Those students who were directed to work for the goals of mastery, exploration and appreciation demonstrated greater task involvement and used more effective learning strategies than children who were directed to focus on their performance alone (Covington,2000). It has been systematically found that intrinsic motivation facilitates creativity, while extrinsic motivation hinders it. These relationships were first established on measures of state intrinsic extrinsic motivations and more recently on measures of trait intrinsic and extrinsic motivations (Moneta & Siu, 2002).

Children whose intrinsic motivation toward schoolwork was bolstered by training subsequently showed higher levels of creativity under external reward conditions, in contrast to non trained children, who showed lower levels of creativity under reward (Hennessey & Zbikowski, 1993). In North American samples of college students, trait intrinsic motivation was found to correlate positively with course performance and SAT verbal and mathematical scores, representing measures of academic ability and intelligence. Extrinsic motivation was instead unrelated to both course performance and SAT scores (Amabile et al., 1994).

On the contrary offering students tangible rewards sometimes actually increases learning, especially if the assignment is seen as a chore or boring. (Covington,2000). For instance, Moneta & Siu (2002) examined the effects of trait intrinsic and extrinsic motivations in 127 year-1, Hong Kong college students and

reported that trait intrinsic motivation correlated negatively with year-1 self-reported score whereas trait extrinsic motivation correlated positively. Other studies in education extended these findings, showing that more autonomous extrinsic motivation was associated with more engagement (Connell & Wellborn, 1991), better performance (Miserandino, 1996), lower dropout (Vallerand & Bissonnette, 1992) and higher quality learning (Grolnick & Ryan, 1987).

Therefore, there is incomplete empirical evidence on how trait intrinsic and extrinsic motivations interact with each other in driving a person's behavior. As state variables, intrinsic and extrinsic motivations have been traditionally considered opposite to each other. In particular, the introduction of extrinsic incentives, such as money and praise, in interesting tasks has been systematically found to reduce intrinsic motivation (Moneta & Siu, 2002). However, as trait variables, intrinsic and extrinsic motivations are reciprocally independent (Amabile et al.,1994) so that, some individuals are high in both, others low in both, and some high in one and low in the other one(Moneta & Siu, 2002). Conceptually both forms of motivation should result in higher overall performance, be it in school or work. Thus, from the point of view of performance, the single most negative personal disposition is the absence of both intrinsic and extrinsic motivation, that is, the lack of motivation (Moneta & Siu, 2002).

The present investigation aimed at exploring the same. It was hypothesized that both the types of motivational orientations along with their sub components will be related to the student's academic performance, however, the direction of their relationship has to be explored in the view of the contradictory and mixed findings.

METHOD

OBJECTIVES :

1. To study Intrinsic and Extrinsic motivational orientations in relation to the academic performance of the adolescents.
2. To explore gender differences in motivational orientations and its relation with academic performance.

HYPOTHESES :

A non directional hypothesis was framed between Intrinsic motivation, Extrinsic motivations (along with their subcomponents i.e Enjoyment, Challenge, Compensation and Outward dimensions) and academic performance.

SAMPLE: The study comprised of 110 students (55 males and 55 females) in the age range of 18-22 years. The tests were administered to these students in classrooms and were taken from different schools in Chandigarh and Panchkula in a random order.

TESTS AND TOOLS: In the present study the following test was used to measure motivational orientations and every participant's total academic score in the previous year was noted down. Work Preference Inventory (WPI; Amabile et al., 1994)

This scale was designed to assess individual trait differences in extrinsic and intrinsic motivational orientation. Extrinsic motivation is defined as the desire or urge to perform a certain behavior based on the potential external rewards that may be received as a result, whereas intrinsic motivation is the motivation or desire to do something based on the enjoyment of the behavior itself rather than relying on or requiring external reinforcement. The questionnaire contains 30 items which are answered on a 4-point scale, from 1 (never true of me) to 4 (always true of me). The inventory includes two main scales for intrinsic and extrinsic motivation and subscales namely Challenge and Enjoyment (Intrinsic motivation) and Compensation and Outward (Extrinsic motivation).

RESULTS & DISCUSSION

RESULTS: The data was processed yielding the following results:

TABLE I- Means, S.D's and t-Ratios Comparing Males and Females

S.No.	VARIABLES	MALES		FEMALES		t-ratios
		Mean	SD	Mean	SD	
1	IM	45.29	6.56	47.20	5.25	1.68
2	EM	41.93	4.95	40.51	4.98	-1.50
3	E	25.22	3.70	27.11	3.22	2.86
4	CH	19.95	3.55	20.09	2.91	0.24
5	O	27.24	3.70	26.64	4.62	-.075
6	C	14.31	2.05	13.80	2.14	-1.27

Note:
t-value significant at .05 level-1.98
t-value significant at .01 level-2.63

TABLE II - Intercorrelation matrix for males (n=55)

Variables	IM	EM	E	CH	OC	C	AP
IM	1.00	0.19	0847(**)	.817(**)	0.09	0.08	.333(*)
EM		1.00	-291(*)	-0.07	.742(**)	.538(**)	.281(*)
E			1.00	.538(**)	0.22	0.09	.431(**)
CH				1.00	-0.20	0.04	0.25
O					1.00	0.24	0.22
C						1.00	0.27
AP							1.00

Correlation significant .05 level = 0.27.
Correlation significant .01 level = 0.35.

TABLE III - Intercorrelation matrix for females (n=55)

	IM	EM	E	CH	OC	C	AP
IM	1.00	-0.03	.862(**)	.819(**)	-0.16	0.15	.276(*)
EM		1.00	0.10	-0.15	.871(**)	.379(**)	0.00
E			1.00	.442(**)	-0.06	0.21	0.26
CH				1.00	-0.21	0.01	0.19
O					1.00	-0.05	-0.08
C						1.00	0.13
AP							1.00

Correlation significant .05 level = 0.27.
Correlation significant .01 level = 0.35.

TABLE IV- Intercorrelation matrix for the total sample (n=110)

	IM	EM	E	CH	OC	C	AP
IM	1.00	0.07	.854(**)	.810(**)	-0.04	0.09	.340(**)
EM		1.00	0.15	-0.11	.809(**)	.466(**)	0.10
E			1.00	.486(**)	0.05	0.11	.409(**)
CH				1.00	-.201(*)	0.02	.223(*)
O					1.00	0.08	0.05
C						1.00	0.15
AP							1.00

Correlation significant .05 level = 0.19.
Correlation significant .01 level = 0.25.

IM-Intrinsic Motivation	E-Enjoyment	O-Outward
EM-Extrinsic Motivation	CH-Challange	C-Compensation
AP-Academic Performance		

The t-values indicated that the difference between males (M=25.22) and females (M=27.11) was significant in case of Enjoyment scale (t=2.86, p< .01).

Correlations for the total sample of 110 students indicated that academic score was positively and significantly related with Intrinsic motivation (p< .01) along with its two subscales of Enjoyment (p< .01) and Challenge(p< .05).Among male adolescents, academic score was positively and significantly related with both Intrinsic motivation (p<.05), Extrinsic motivation (p<.05) and Enjoyment subscale (p<.05). Among female adolescents, academic score was positively and significantly related with Intrinsic motivation (p<.05) only.

The most notable finding is that Intrinsic motivation appears to be a significant correlate of academic performance in all the three groups i.e males, females and the total sample of adolescents. Secondly, among males, Intrinsic and Extrinsic motivation both showed a significant relationship with academic performance. This implies that for males, both the types of motivation are important vis-à-vis their academic performance.

Coming to the first finding, past research suggests that students with a motivational orientation involving goals of mastery, learning, and challenge, as well as beliefs that the task is interesting and important will engage in more metacognitive activity, more cognitive strategy use, and more effective effort management (Pintrich & De Groot , 1990). Though handful, researches have demonstrated the same.

For instance, Ryan and Connell (1989) tested the formulation that different types of motivation, with their distinct properties, lie along a continuum of relative autonomy. They investigated achievement behaviors among school children and found that differences in the type of extrinsic motivation were associated with different experiences and outcomes. For example, the more students were externally regulated the less they showed interest, value, and effort toward achievement and the more they tended to disown responsibility for negative outcomes, blaming others such as the teacher.

Pintrich & De Groot (1990) conducted a correlational study and examined relationships between motivational orientation, self-regulated learning, and classroom academic performance for 173 seventh graders from eight science and seven English classes. They found that students who were motivated to learn the material (not just get good grades) and believed that their school work was interesting and important were more cognitively engaged in trying to learn and comprehend the material. In addition, these students were more likely to be self-regulating and to report that they persisted on their academic work. In a similar fashion, their data suggested that intrinsic value is an important component of students' "choice" about becoming cognitively engaged in their classroom academic work.

Amabile et al. (1994), while developing Work Preference Inventory, reported that for students, there were no significant differences between men's and women's scores on either of the primary motivation scales. However, men had slightly higher Challenge and Outward scores, whereas women had slightly higher Enjoyment, and Compensation. For adults also, women scored higher than men on the Intrinsic Enjoyment scale. Also, intrinsic scores did correlate modestly with a midterm exam score and with math SAT scores. It appears that to some degree, more highly intelligent students may be more intrinsically oriented toward their schoolwork. A conceptually similar positive correlation was found between intrinsic scores and academic comfort (Hansen & Campbell, 1985). This enhancement of learning occurs presumably because intrinsically motivated students use strategies to promote deeper understanding and future application of that learning, gain greater knowledge and insight, feel better about themselves, and are more likely to persist in goal-directed activities.

Morgan et al. (2001) reported that when choosing a career, women continue to value interpersonal goals such as self-determination, helping people, or working in a pleasant environment—more highly than other types of goals. Men's goals appear, however, to be more in line with models of extrinsic motivation, as they tend to aspire to such things as earning a good income or achieving a certain professional status. This is in line with the present finding where by extrinsic motivation has been found to have a relationship with performance among males but not females. Females have been found to give more importance to Intrinsic motives.

Burton et al. (2006) tried to investigate the associations between intrinsic and identified motivations and outcomes of psychological well being and academic performance among 241 elementary school children ranging in age from 8 years to 13 years and reported that the amount of time that students spent studying was

strongly associated with changes in levels of psychological well-being for those in the intrinsic condition i.e the more time that students in the intrinsic condition spent being actively involved in the pursuit of their goal (i.e., studying), the more that they experienced psychological well-being.

Demonstrations of positive outcomes being associated with more internalized motivation have also emerged in other diverse domains including religion, physical exercise, political activity, environmental activism and intimate relationships (Ryan & Deci, 2000).

The present finding along with some corroborating research in the past suggests that, although the intrinsic scales do, in fact, indicate a tendency to be interested in a variety of activities, the extrinsic scales do not necessarily indicate a lack of interest as shown among males in the present sample. This can be taken as further evidence that intrinsic and extrinsic motivations are not simply opposites. These findings provide further support for the exciting possibility that intrinsic and extrinsic motivational orientations can co-occur. Harter (1981) has suggested the possible additively quality of intrinsic and extrinsic motivation for school children and has speculated that such motivational combinations might lead to enhanced learning and performance. Similar patterns have emerged in various experimental studies, where trained children were trained to focus on their own intrinsic motives (Hennessey & Zbikowski, 1993) and where it was found that students who pursue complex problem-solving activities exhibit high levels of both intrinsic and extrinsic motivation (Amabile et al., 1994). Therefore, the importance of extrinsic motivation can not be negated at the same time.

CONCLUSIONS AND IMPLICATIONS

Though the present study was conducted on a small sample of 110 adolescents, it highlights far reaching implications for the educators and parents. The most obvious implication is that a major instructional goal should be to disseminate knowledge in a manner that revolve around and foster personal interests of students. In addition to creating grading systems that encourage intrinsic reasons for learning, teachers should provide payoffs that actively strengthen and reward these positive reasons. Although students focus primarily on the prospects of getting a good grade, they are also more likely to invest greater time and energy (beyond what is necessary for the grade) in those tasks for which there are additional tangible, yet intrinsically oriented payoffs. These payoffs include the opportunity to share the results of their work with others, or the chance

to explain more deeply and personally why and what they learned was important to them (Burton et al., 2006). Besides being relevant to educators, it is also relevant to managers who want to facilitate motivation and commitment on the job, and it is relevant to psychotherapists and health professionals because motivation is perhaps the critical variable in producing maintained change.

Although the present correlational data cannot address causality, it appears that the students who choose to become cognitively engaged and self-regulating are those who are interested in and value the tasks they work on in their classrooms. Accordingly, students' intrinsic value and motivation to learn is an important component to be considered in the models of how students come to use different cognitive strategies and become self-regulating learners (Meece et al., 1988). Whereas the present research points out the importance and value of distinguishing between intrinsic and identified motivations, future research might expand on this and examine the development of these motivations over time in the pursuit of specific and meaningful goals. Intrinsic motivation may often act as an initial engine that fuels goal pursuit. Therefore, framing the pursuit of a goal in terms of it being interesting, enjoyable, and fun may help to improve people's general well-being.(Vansteenkiste et al., 2004). Achieving personally significant goals and being happy doing so are key to optimizing human potential.

We hope that future researchers will be able to confirm the present findings as well as propose new explanations and variables that will lead to greater understanding of the factors involved in men's and women's motivational orientations.

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