

Relationship between Extrinsic Motivation and Students' Academic Achievement: A Secondary Level Study

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The study was aimed to find out the relationship between teacher motivation and students' academic achievement at the secondary school level. A sample of 950 secondary school teachers was taken out of 3168 secondary school teachers. Survey technique was used to collect data through a questionnaire (MOT-SIII). The academic achievement of the students was measured by taking the results in the annual examination conducted by Board of Intermediate and Secondary Education Lahore (BISE). The collected data was analyzed by using mean, standard deviation and Pearson r. It was found that teacher motivation was having a strong correlation with academic achievement of the students. It was recommended tangible benefits can serve as a better source for the enhancement of Extrinsic motivation level of teachers.

Keywords: *extrinsic motivation, student's achievement, secondary level*

Introduction

Excellence and quality of an education system directly related to the performance of its teachers. Professional competencies, skills, teaching methodologies, hard work, devotion and zeal of teacher enhance the performance and leads towards desired excellence and quality of education. Though the professional components are of great importance yet the psychological aspects that make a teacher competent and confident at the workplace cannot be ignored. As in organizational psychology, it is focused that not only the ability of a person but also the motivation plays very vital and effective role in improving the performance of an employee (Compbell and Pritchard, 1976). Motivation is the driving force that directs the behaviour of a human being in personal and professional contexts. In case of professional context, the employees who are motivated are found to

be displaying higher integrity at the workplace as well as increased output in comparison to the employees with a low level of motivation (Gagne & Dcci, 2005; Kuvaas, 2006). In academic intuitions, the motivated workforce can be seen in the form of faculty and instructors who handle the responsibilities of knowledge acquisition among the students. Teachers play a pivotal role in facilitating the learning of students. The interaction between teacher and students, adoption of teaching practices, attitude towards the challenges encountered in the classroom are some of the key elements on which motivation level of a teacher can have a strong influence (Reeves, 2004).

Researchers have argued that teachers who feel are motivated to perform their job-related responsibilities are able to depict better outcomes as reflected through their capability to maintain an adequate level

of motivation among the students (Ames, 1990). Davidson (2007), in a study conducted in Tanzania it has been asserted that lack of motivation among the instructors can have a negative impact on the performance of students. Moreover, the lack of motivation can result in the adoption of a teacher-centred learning the style. This can inevitably result in the restricted learning and educational development of the students, which is likely to be reflected in their exam scores. Bishay (1996) has proclaimed that the impact of teacher motivation on the output displayed by students in exams and test can't be ignored. The quality of teaching students receive in the context of classroom directs the process of their cognitive development, thus motivation of teachers and student achievement in school are strong interlinked factors.

Theoretical Background

The term motivation has evolved out of the Latin word '*move*', which means to move. The earliest definition of motivation considered it to be a set of "psychological processes that cause the arousal, direction and persistence of behaviour" (Mitchell, 1982). Further investigators have highlighted the importance of the behaviour being focused on some specific goal, thus emphasizing the element of goal-directed behaviour, and voluntary participation in activities that facilitate towards the achievement of certain goals (Kreitner & Kinicki, 2006). In addition to this, scholars have made efforts to classify various elements that drive the goal-directed behavior among humans and animals, thus resulting in the identification of the factors

of needs, motives, drives, goals and incentives as the key psychological processes (McKenna, 2000, p. 89) which were considered to be at the core of the goal-directed behavior, or motivation.

Motivation can be regarded as the basic part of human experience. From infancy till old age, the behaviour of people is directive by some underlying motives or needs which propel them to behave in a certain manner. An individual who is motivated is likely to feel a greater level of commitment in performing a task as compared to a person who has a low level of motivation. The psychological factor of need can propel a person to work towards the fulfilment of his needs by engaging in certain behaviours. Motives, on the other hand, are viewed as 'inner states' of an individual which can encourage the engagement in voluntary or goal-directed behaviour. Similarly, incentives trigger interest among people, facilitating them to participate in particular activities, thus depicting manifestation of the phenomenon of motivation (McKenna, 2000). Motivation is a multifaceted phenomenon, as individuals can experience different levels of motivation as well as feel motivated due to different factors. Based on this backdrop, the researchers have investigated the identification of types of motivation, suggesting the existence of two main categories of motivation namely: intrinsic and extrinsic motivation. Both of these types of motivation can encourage the employees to deftly participate in work-related activities and improve their work performance (Amabile, 1993). The influence of extrinsic motivation is reflected in the

behaviour where the employees focus on tangible outcomes of performing certain activities. There have been researchers who have supported the use of extrinsic motivation as a means of maintaining an adequate level of motivation among the employees (Osterloh & Frey, 2000). Other researchers such as Kreps (1997) have supported the use of extrinsic or external motivators on the ground that the tangible nature of external reinforcement makes it a more feasible tool of establishing a clear connection between the sequence of input, output and reward. Nevertheless, critics of extrinsic sources of motivation have argued that the changes in employee behaviour such as increased performance are only a temporary shift in the behaviour of the workers. Removal of tangible sources of motivation will eventually result in lowering of the performance. In some cases offering external rewards brought no significant improvement in the effort employees

Research Objectives

The study is based on the following research objectives:

1. To find out the relationship between the extrinsic motivation of teacher and students' academic achievement at the secondary school level.

Hypotheses of the Study

- H₀₁: There is no significant relationship between the extrinsic motivation of teachers' and students' academic achievement at the secondary school level.
- H₀₂: There is no significant relationship between the extrinsic motivation of male teachers and students' academic achievement at the secondary school level.

invested in the work-related responsibilities (Frank & Lewis, 2004). In addition to this, it has also been argued that extrinsic forms of reinforcement, if not appropriately aligned with the needs of the employees can result in negative outcomes for the organization.

The attitude of management towards employees may also decrease the level of motivation of workers. In case of educational institutions, the interaction between administration, principal and teachers is of great importance (Bogler, 2001). Griffith (2001) has further inferred that since principals hold a leadership position in the school, their capability to be a transformational leader carries implications for the level of job satisfaction and motivation of the teachers. In addition to this, principals who have been able to foster an environment conducive to learning and motivation of staff and students had a greater probability of obtaining a better result

- H₀₃: There is no significant relationship between the extrinsic motivation of female teachers and students' academic achievement at the secondary school level.

Research Design

The study was descriptive in nature and survey method was used for the purpose of data collection. Since the study was also aimed to establish the relationship between the extrinsic motivation of secondary school teachers (SSTs) and students' academic achievement, the so the nature of research was also co-relational.

Methodology

A survey was conducted to find out the relationship between the extrinsic

motivation of teacher and students' academic achievement at the secondary school level. A number of 950 secondary school teachers were selected as sample. There were 3168 secondary school teachers teaching metric level classes in high schools of five districts of Lahore division. A sample of 950 teachers was selected through proportionate samplings adopting the PPS technique as there was a different number of teachers in five districts of Lahore division. The research instrument named Motivational Orientation for Teaching Survey (MOT-SIII) was used to measure the motivation level of secondary school teachers. The instrument was developed on a five-point Likert scale from strongly disagree to strongly agree. A total number of items in the questionnaire was 23 which were related to five factors of extrinsic motivation. This

instrument was validated through experts' opinion and the calculated value of Cronbach alpha was 0.73 which was found through a pilot study that was conducted on 100 teachers. The academic achievement of the students was measured by having the results of the students in the annual examination conducted by BISE Lahore.

Data Analysis

Data were analysed by using Statistical Program for Social Sciences (SPSS) version 15. Descriptive analysis was used for data analysis and Mean and the Standard deviation was calculated to find out the level of extrinsic motivation of the teachers. Pearson "r" was used to find out the relationship between the extrinsic motivation of teacher and students' academic achievement. Tables show the details in this regard.

Table 1

Mean and Standard Deviation of Extrinsic Motivation Factors of Secondary School Teachers

Factors of Extrinsic Motivation	N	Minimum	Maximum	Mean	Std. Deviation
Career Change	950	5	20	16.68	2.55
Working Condition	950	6	20	17.43	2.44
Life Fit	950	2	10	8.55	1.48
Influence of other	950	2	10	7.67	1.71
Nature of Teaching Work	950	2	10	8.13	1.74
Status	950	3	15	12.08	2.12
Extrinsic Motivation	950	28	85	70.54	8.91

Table 1 shows the calculations regarding the mean and standard deviation of factors of extrinsic motivation, the mean score of factor working condition are maximum ($M=17.43$, $SD=2.44$) and the minimum value of mean ($M=7.67$, $SD=1.71$) which is for factor influence of others. It was concluded that factor intellectual stimulation existed at a high level in the intrinsic motivation of teachers as compared to the other factors.

The relationship between Teacher Motivation and Students' Academic Achievement

To address the relationship between the extrinsic motivation of teacher and students' academic achievement person "r" was calculated and the hypotheses were tested. Firstly the hypothesis "There is no significant relationship between the extrinsic motivation of male teachers' and students' academic achievement at secondary school level" was tested by applying Pearson

Correlation and the results are shown in table 2.

Table 2

Relationship between Extrinsic Motivation of Male Secondary School Teachers and Students' Academic Achievement (n=586)

Factors of Extrinsic Motivation	1	2	3	4	5	6	7	8
1-Career Change	-							
2-Working condition	.406**	-						
3-Life fit	-.069**	.333**	-					
4-Influence of Others	-.069**	.333**	.440**	-				
5-Nature of Teaching Work	-.069**	.333**	.440**	.270**	-			
6-Status	-.012**	.342**	.313**	.241**	.468**	-		
7-Extrinsic Motivation	.616**	.847**	.616**	.737**	.513**	.467**	-	
8- Students' Academic Achievement	.132**	.358**	.353**	.317**	.283**	.268**	.418**	-

** $p < .01$

Table 2 shows the relationship between the extrinsic motivation of male teachers and students' academic achievement. To find out the relationship Pearson coefficient of correlation " r " was calculated. It was found that factors of extrinsic motivation, career change ($r = .132$, $p < .01$), working condition ($r = .358$, $p < .01$), life fit ($r = .353$, $p < .01$), influence of others ($r = .317$, $p < .01$), nature of teaching work ($r = .283$, $p < .01$), status ($r = .268$, $p < .01$) and extrinsic motivation ($r = .418$, $p < .01$) were having significant positive relationship with the academic achievement of the students. It

Table 3

Relationship between Extrinsic Motivation of Female Secondary School Teachers and Students' Academic Achievement (n=364)

Factors of Extrinsic Motivation	1	2	3	4	5	6	7	8
1-Career Change	-							
2-Working condition	.344**	-						
3-Life fit	-.127**	.210**	-					
4-Influence of Others	.270**	.285**	.225**	-				
5-Nature of Teaching Work	-.174**	.329**	.472**	.322**	-			
6-Status	-.083**	.355**	.359**	.274**	.627**	-		
7-Extrinsic Motivation	.525**	.776**	.481**	.627**	.580**	.555**	-	
8- Students' Academic Achievement	.049**	.207**	.308**	.276**	.388**	.329**	.381**	-

was concluded that statistically significant positive relationship was present between the extrinsic motivation of male secondary school teachers and students' academic achievement.

To address the third hypothesis & Secondly the hypothesis "There is no significant relationship between the extrinsic motivation of female teachers and students' academic achievement at secondary school level" was tested and the results are presented in table 3

Achievement

** $p < .01$

Table 3 explains the relationship between the extrinsic motivation of female teachers and students' academic achievement. To find out the relationship Pearson coefficient of correlation "r" was calculated. It was found that factors of extrinsic motivation, career change ($r = .049, p < .01$), working condition ($r = .207, p < .01$), life fit ($r = .308, p < .01$), influence of others ($r = .276, p < .01$), nature of teaching work ($r = .388, p < .01$) and status ($r = .329, p < .01$) and extrinsic motivation ($r = .381, p < .01$) also were having statistically significant positive

relationship with the students' academic achievement. It was inferred that extrinsic motivation of female secondary school teachers was having a statistically significant positive relationship with students' academic achievement. Finally to test the hypothesis "There is no significant relationship between the extrinsic motivation of teachers' and students' academic achievement at secondary school level" person r was used and the results are presented in table 4.

Table 4

Relationship between Extrinsic Motivation of Secondary School Teachers and Students' Academic Achievement (N=950)

Factors of Extrinsic Motivation	1	2	3	4	5	6	7	8
1, Career Change	-							
2-Working condition	.382**	-						
3-Life fit	.020	.368**	-					
4-Influence of Others	.353**	.461**	.317**	-				
5-Nature of Teaching Work	-.110**	.333**	.453**	.288**	-			
6-Status	-.038	.347**	.330**	.252**	.528**	-		
7-Extrinsic Motivation	.797**	.833**	.645**	.585**	.733**	.761**	-	
8- Students' Academic Achievement	.096**	.309**	.337**	.303**	.329**	.291**	.419**	-

** $p < .01$

Table 4 reflects the relationship between the extrinsic motivation of male teachers and students' academic achievements. To find out the relationship Pearson coefficient of correlation "r" was calculated. It was found that factors of extrinsic motivation, career change ($r = .096, p < .01$), working condition ($r = .309, p < .01$), life fit ($r = .337, p < .01$), influence of others ($r = .303, p < .01$), nature of teaching work ($r = .329, p < .01$), status ($r = .291, p < .01$) and extrinsic motivation ($r = .419, p < .01$) also

were having statistically significant positive relationship with the students' academic achievement. Hence, it was concluded that statistically significant positive relationship between the extrinsic motivation of secondary school teachers and students' academic achievement existed.

Conclusions and Discussions

It was concluded that extrinsic motivation of secondary school teachers was having a statistically significant positive relationship with students' academic

achievement. It was concluded that extrinsic motivation of male secondary school teachers was having a statistically significant positive relationship with students' academic achievement.

It was inferred that intrinsic motivation of female secondary school teachers was having a statistically significant positive relationship with students' academic achievement.

Discussions

The extrinsic sources of teacher motivation extend beyond the factor of compensation. Nevertheless, external motivators hold a prime position in motivating the teachers. Zembylas and Papanastasiou (2004) have conducted a study on the K-12 teachers in Cyprus. An interesting finding of the study was that the decision to become a part of the teaching profession was triggered and significantly influenced by the external motivators such as compensation, work timings, number of public holidays, vacation etc. Kyriacou and Coulthard (2000) have also claimed that the extensive holidays seem to be an appealing factor for the teachers. Malik et al., (2010) has investigated the level of job satisfaction among university teachers in Pakistan, including the discussion on the role played by internal and external sources of motivation in instigating job satisfaction and commitment among instructors. It has been concluded that a blend of extrinsic and intrinsic motivation can be used to enhance the level of motivation and job satisfaction of the teachers.

Hildebrandt and Eom (2011) have also highlighted the role that locus of control can play in determining that which elements

have the potential to motivate a teacher. The external locus of control of an individual will give rise to the perception that every outcome of the behaviour is related to the external environment. On the other hand, the internal locus of control tends to bring emphasis to the source of the outcome within an individual, thus indicating that the responsibility of the outcome is attributed to the individual's actions. Based on this idea, the application of intrinsic and extrinsic motivation can also be undertaken. The extrinsic motivation fits in well with the description of external locus of control as the teacher's motivation is controlled by the external outcomes such as rewards or penalty. On the contrary, the internal locus of control can be aligned with the focus of teachers on self-determination, thus highlighting the role that personal satisfaction, prestige, autonomy and enjoyment can play in encouraging an individual to be a teacher (Suslu, 2006).

Duzbay (2001) has identified that the need to attain independence or empowerment, professional development and belongingness serves as the prime motivators for a significant ratio of teachers. It has also been found that when teachers were forced to be a part of professional development process, the level of motivation had greatly declined as a result. In order to maintain the motivation of teachers, as well as facilitate them towards a greater degree of competence and professionalization; a balance needs to be maintained between teacher needs and professional requirements. Therefore, providing suitable career development opportunities serves the extrinsic motivation (increased salary,

increment, promotion) as well as intrinsic motivation (sense of accomplishment, the feeling of satisfaction).

Moreover, lack of desirable level of extrinsic motivators may discourage the instructors, who can as a consequence lose interest in their career as a teacher (Biggs & Tang, 2011). Within organizational settings as well, the influence of extrinsic motivators on employee performance has been explored extensively. Management is found to be offering a wide range of tangible rewards to ensure that the motivation level of employee is maintained or enhanced. A few of the example of extrinsic motivators are salary increase, bonus, paid vacation, promotion opportunities, job enrichment, career planning etc.

Muralidharan and Sundararaman (2009) have conducted an important study in India, using the sample of school teachers to gather data. It has been found that external forms of motivators such as offering a bonus to the teachers whose classes have shown good performance had a positive effect on the level of motivation on those teachers. However, the use of bonus based on student performance has reinforced the tendency to overlook the intrinsic sources of motivation for being a teacher. Another integral finding of the study was that lack of equity among those instructors who performed their duties with due diligence and the ones who didn't demonstrate hard-working attitude resulted in low motivation. It has been observed that despite the differences in input, the instructors received same output, thus it resulted in de-motivation. In addition to this,

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in cases where the teachers considered external sources of motivators such as bonuses as a tool of controlling the behaviour of the instructors; the degree of self-satisfaction the teachers derived out of their job declined.

Recommendation

For the purpose of enhancement of extrinsic motivation level, seminars, workshops and conferences should be arranged on regular basis. Moreover, award ceremonies to honour and recognize the achievements of teachers may also be proved helpful in this regard. Such sort of programs may be beneficent for both in-service teachers and prospective teachers and ultimately devoted motivated and competent teachers may be prepared to play their roles in the betterment of system of education.

Policy makers, planners and curriculum developers for teacher training should ponder Policy makers, planners and curriculum developers for teacher training should ponder over the importance of teacher motivation and give it due to weightage while developing curriculum. Enticing benefits for teachers, heads and especially for female teachers working in remote rural and fewer privilege areas should be offered for enhancement of motivation level. There should be a proper feedback system after introducing such sort of schemes and programmes. So that ways for more researches may be paved.

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