

A Study of Attribution Patterns among High and Low Attribution Groups: An Application of Weiner's Attribution Theory

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KEYWORDS Performance. Religious School. Mainstream School. Academic Achievement. Social Psychology. Self-esteem

ABSTRACT The purpose of the present study was to separate students with high causal attributions and low causal attributions of mainstream and religious sectors and to find out the effect of these causal attributions on students' subsequent academic achievement. Sample of the study was 490 students of grade X from Rawalpindi and Islamabad districts of Pakistan. Out of these 490 students 260 belonged to mainstream schools and 230 came from religious schools. The design of study was causal comparative. The statistical techniques of frequency distribution, mean, standard deviation, median, quartile deviations and t-test were used for analysis. The main conclusion drawn from the study was that there was significant difference between the academic achievement of intrinsically motivated students with high causal attributions and that of extrinsically motivated students with low causal attributions thus confirming Weiner's attribution theory.

INTRODUCTION

Attribution is to say or believe that something is the result of particular thing for example, success is attributed to hard work (Hornby 2000). The first theory of attribution was proposed by Heider (1958) but further theoretical framework was extended by Weiner and his colleagues into a major research paradigm of social psychology. Its focus is about the causes people ascribe to their own success or failure and the effects of such explanations on the future of students in terms of their expectations of success, emotional reactions, self-esteem, risk-taking behavior, their consistency at achievement-related tasks, and even on the actual consequences of actions (Gagne et al. 1993; Stoeber and Becker 2008).

The attribution theory is concerned with how causal explanations are made by people and why they make such explanations, which then lead to effect their achievement and performance (Brown 1999). Students act on the basis of their beliefs, and teachers and parents have to take their beliefs into account. Educational institutions are blamed for producing such students who are merely enthusiastic for grades and degrees to get better employment opportunities after graduating as institutions are not promoting learning. Weiner's theory addresses above mentioned problems and helps teachers to enhance the aca-

demic achievement of their students by inculcating high and positive attributions in them.

According to attribution theory, the attributions that students tend to give to explain success and failure can be analyzed in terms of three sets of characteristics:

- ♦ There may be internal or external cause of success or failure. There are such factors for which our thinking about success or failure develops, and the origin of such factors lies within us or these may originate from our environment.
- ♦ The perceived cause of success or failure may be stable or unstable over time. If it is considered stable, then the outcome is likely to be the same in future. If it is unstable, the outcome is likely to be different in future.
- ♦ There may be controllable as well as uncontrollable causes of success or failure (Bempechat 1999).

Ability, effort, task difficulty and luck are four forces given by Weiner related to attribution theory. These four causes are the answers of students' questions related to "Why" for example, why have I got failed in Mathematics? In term of the characteristics discussed previously, these four forces can be analyzed in the following way:

- ♦ Ability is a relatively internal and stable factor over which the learner does not exercise much direct control.

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- ♦ Task difficulty is an external and stable factor that is largely beyond the learner's control.
- ♦ Effort is an internal and stable factor over which the learner can exercise a great deal of control.
- ♦ Luck is an external and unstable factor over which the learner exercises very little or no control.

Weiner (1986) argues that each causal attribution has a specific emotional consequence and behaviors are determined by the expectancy of such emotional consequences. The learner's feeling about himself to be lucky would be an internal and stable characteristic over which he can exercise almost no control. Likewise, a person may believe that he exerted a great deal of effort, when in fact he did not, or that an objectively easy task was difficult (Murray and Thompson 2009).

Attribution theory is closely associated with the concept of motivation, it describes that a person's attributions for success or failure ultimately determines the amount of effort he will exert on that activity in the future, in other words these attributions predict his future achievement behavior (Boruchovitch 2004; Beck 2000).

Students will be more persistent at academic tasks if they attribute their academic successes to either internal, unstable, factors over which they have control (for example, effort) or internal, stable factors over which they have little control but which may sometimes be disrupted by other factors (for example, ability disrupted by occasional bad luck). Therefore, one way to change our motivation is to change our beliefs and attributions. Weiner's theory has been widely applied in education, law, clinical psychology, and the mental health domain. Weiner (1980) states: "Causal attributions determine affective reactions to success and failure." Sweeney et al. (2005) concluded that successful students whether male or female made internal attributions and were pleased with their performance. Manzoni (1995) in her study on 'to what students attribute their academic success and failure concluded that giving up, inadequate learning and laziness are considered by students as a main points for their being unsuccessful. The majority of items relating to successful students speak of influence that is coming from inner factors, that is, personal characteristics of students. Hau and Salili (2002) revealed that high expect-

ancies in examinations were generally related to positively perceived present attainment and more controllable attributions. Addiba (2004) found that high achievers significantly attributed their outcomes to effort and ability and the low achievers to luck and task difficulty. The results of these studies are in line with the findings of present research. Murray and Thompson (2009) found the effects of attributions in decision making, it was found that the tendency for actors to attribute the cause of their actions to situational factors and external to them, while observers attribute cause of the same action to stable, internal factors.

The main objectives of the study were:

- ♦ To find out mean attribution and mean achievement scores and dividing them into high and low attribution groups
- ♦ To find out mean attribution and mean achievement scores of extreme high and extreme low attribution groups of students
- ♦ To compare the academic achievement of students of both high and low attribution group

MATERIAL AND METHODS

Students of grade X studying in religious schools and mainstream schools of Rawalpindi and Islamabad districts constituted the population of this study, the data regarding attribution patterns were collected in February 2008, whereas the data regarding achievement of students was collected in May-June 2008. The multistage cluster sampling procedure as suggested by Gay (2002) was adopted for the purpose of selection of the sample. A sample of 260 students (100 girls and 160 boys) was randomly selected from 20 mainstream schools and 230 students (70 girls and 160 boys) were selected from 10 religious schools. The total sample size was thus 490 students. A 30 item causal attribution scale based on five point rating scale items was developed in the light of Weiner's attribution theory to collect data about students' attribution patterns. The achievement scores were taken as the marks obtained by the students in their subsequent examination held after measuring their causal attributions. The design of this study was causal comparative, involving two comparison groups, namely high attribution group and low attribution group. On the basis of attribution scores, students were classified into two groups,

that is, high attribution group and low attribution group by using median as cut off point. Then, extreme groups on attribution scores were also identified and compared to further confirm the results. For this purpose Q1 and Q3 of each category of students were computed. The data was analyzed using Mean, SD, and t-test.

RESULTS

Table 1 indicates that the obtained difference between the average achievement scores of the high attribution and low attribution groups was 123.15. This difference was found to be significant at .05 level of confidence. The null hypothesis "There is no significant difference between the mean achievement scores of low and high attribution groups belonging to mainstream schools" is therefore rejected. The difference being in favor of high attribution means shows that high attribution group did well on subsequent examination.

Table 1: Significance of difference between mean achievement scores of low and high attribution groups belonging to mainstream schools

Categories	Mean	SD	SE mean	T	P
High attribution group	431.03	28.62	4.89	3.90	<.05
Low attribution group	307.88	47.72			

df=258 t .05=1.90

Table 2 indicates that the obtained difference between the average achievement scores of the high attribution and low attribution groups was 96.81. This difference was found to be highly significant at .05 level of confidence. The difference being in favor of high attribution means that high attribution group did well on subsequent examination.

Table 2: Significance of difference between mean achievement scores of low and high attribution groups belonging to religious sector schools

Categories	Mean	SD	SE mean	T	P
High attribution group	306.81	48.76	5.055	19.15	<.05
Low attribution group	210.0	21.30			

df=234 t .05=2.75

Table 3 indicates that the obtained difference between the average achievement scores of the extreme high attribution and extreme low attribution groups was 185.76. This difference was found to be highly significant at .05 level of confidence. The difference being in favor of extreme high attribution means that extreme high attribution group did well on subsequent examination. This supports the result obtained from table.

Table 3: Significance of difference between mean achievement scores of extreme low and extreme high attribution groups belonging to mainstream schools

Categories	Mean	SD	SE mean	T	P
Extreme high attribution group	455.06	14.93	4.02	46.20	<.05
Extreme low attribution group	269.30	29.85			

df=137 t .05=1.96

Table 4 indicates that the obtained difference between the average achievement scores of the extreme high attribution and extreme low attribution groups was 150.82. This difference was found to be highly significant at .05 level of confidence. The null hypothesis no four was therefore rejected. The difference being in favor of extreme high attribution means that extreme high attribution group did well on subsequent examination. This supports the result obtained from table.

Table 4: Significance of difference between mean achievement scores of extreme low and extreme high attribution groups belonging to religious schools

Categories	Mean	SD	SE mean	T	P
Extreme high attribution group	340.53	40.10	5.37	28.10	<.05
Extreme low attribution group	189.71	10.77			

df=114 t .05=1.98

DISCUSSION

Different forces are credited by different people as responsible for such life events as personal successes and failures. This study has confirmed that a person attributes success

mostly to himself like “I have a lot of ability to get good grades at this test” and failure to the outside factors like “I was unable to show good result because the teacher does not like me”. These are the same facts proposed by Weiner (1986) who also determined that both ability and effort are perceived as internal to person, and success is mostly attributed to them, whereas luck and task difficulty as external to him and mostly taken as explanations of failure. In other words, majority of students attribute their success to circumstances that are directed towards outside influence and are beyond the control of students, whereas successful students relate their success to the factors coming from their personal characteristics. In this study, a questionnaire was used for the collection of data. The projective techniques are the other way for measuring students’ attributions. The results of the study also disclosed that most of the students had tendency to tick positive attribution items, but their achievement scores were below average, which means they kept their original feelings hidden for the fear of being observed. The system of religious schools needs to be more conducive and friendly. Similarity of results was observed in the study conducted by Sweeney et al. (2005) as students generally make internal observations in case of success. The results of the study were also similar to the greater extent to the study of Addiba (2004) as the students in the present study also preferred to attribute their failures to luck and task difficulty and success to internal and controllable factors like effort, ability and good study habits.

CONCLUSION

On the basis of the findings of the study, it was concluded that actual difference of the performance of students belonging to mainstream schools, between mean achievement scores of the high attribution group over low attribution group and extreme high attribution group over extreme low attribution group was highly significant and this difference is attributed to their attribution patterns. Similarly the actual difference of the performance of students belonging to religious sector, between mean achievement scores of the high attribution group over low attribution group and extreme high attribution group over extreme low attribution group was highly significant and this difference is attributed to their

attribution patterns. Thus the overall conclusion drawn from the study was that students having high attributions about their grades obtained by them in the previous examination perform better in the subsequent examination, which also verified Weiner’s theory of achievement motivation in Pakistani educational settings.

RECOMMENDATIONS

It is recommended that the teachers may form co-operative groups in the classrooms and laboratories to work together on difficult tasks. If they observe that a particular group is struggling well with a particular solution or proof, teachers may provide a hint to steer that group in the right direction. In this way the students will realize that their effort is encouraged and appreciated by the teacher. Similarly, the teacher might use positive self-fulfilling prophecies to encourage his students who are disappointed on their performance in their last examination. He might communicate general interest in their well being and tell them that although they are talented students but to achieve good grades they need to make more effort as goals are comparatively more challenging at present level. Students who cue to having a hard time are usually ignored by their teachers in this way teachers add to the students’ unhealthy and low attributions. Teachers might assist students who are struggling by lowering the task difficulty. In doing this, students may become more successful and therefore motivation may follow and positive attributions might be developed. Teachers may not show sympathy or pity when students fail, by doing so they convey the idea that students lack ability.

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