

ISSN:1995-1272

Vol.6, No. 2

Winter : 2012

FWU Journal of Social Sciences

Published Biannually



*Shaheed Benazir Bhutto
Women University, Peshawar*

Editor

Syeda Farhana Jahangir

Associate Editor

Mah Nazir Riaz

Causal Attribution Patterns of Mainstream School Students and Their Effect on Achievement

Sadia Batool

Faculty of Education, Preston University, Islamabad

&

Tehseen Akhter

Science and Mathematics Department, Curtin University, Perth, Western Australia

The present study was designed to draw the comparison of the academic achievement of high and low attribution groups and to find out the effect of these causal attributions on students' subsequent academic achievement. Sample of the present study was 490 tenth grade students 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 data was analysed by using the techniques of frequency distribution, mean, standard deviation, median, quartile deviations and t-test. The conclusions of the study depicted that there was worth mentioning diversity between the academic achievement of two groups of students, that is, intrinsically motivated students with high causal attributions and extrinsically motivated students with low causal attributions, consequently confirming Weiner's attribution theory. It is concluded here that the students who experience success usually attribute their failure to external and uncontrollable factors and usually consider themselves as helpless in the face of any achievement related task.

Keywords: Intrinsic motivation, extrinsic motivation, social psychology, cluster sampling, reinforcement

Attribution is the significant concept of social psychology which depicts how individuals explain causes of behavior and events. Fritz Heider was the first Social Psychologist who proposed a theory of attribution in his book 'The Psychology of Interpersonal Relations' in 1958. This research was further expanded by Harold Kelley and Bernard Weiner (Kassin, Fein & Markus, 2008). The present article is the application of Weiner's theory in Pakistani educational settings. The focus of the theory is the causes people assign to the consequences of their own achievement related tasks 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). It has been recognized that the explanations given by students follow certain partialities and can be forecasted. Testing predictions usually involve classifying attributions along dimensions proposed by Weiner, and the present study follows these dimensions (Ross, Davies and Clarke, 2004).

Weiner describes that the explanations people tend to make to explain success and failure can be analyzed in terms of three sets of characteristics:

- The first dimension is internality and externality of

attributions. It means we may think of success or failure because of the factors that we believe have their source within us or because of the factors that originate in our environment.

- The second dimension is stability or instability of attributions. If we identify that the cause of success or failure is 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.
- The third dimension is controllability or uncontrollability of attributions. A controllable factor is the one which we consider we ourselves can modify the outcomes if we wish to do so. On the other hand an uncontrollable factor is the one that we do not believe we can easily alter (Bempechat, 1999).

There are four factors related to attribution theory that influence motivation for learning: ability, task difficulty, effort and luck. In terms of the characteristics discussed above, these four factors can be analyzed in the following way:

- Ability is an internal, stable and largely uncontrollable factor.
- Task difficulty, on the other hand, is an external and stable and largely uncontrollable factor.
- Effort is an internal, stable and controllable factor.
- Luck is an external and unstable factor over which the learner exercises very little control (Mazulis, 2004).

Correspondence concerning this article should be addressed to Tehseen Tahir, Science & Mathematics Education Department, Curtin University, Perth Western Australia.
Email: tehseen_akhter@yahoo.com

Attribution theory is closely associated with the concept of motivation, it describes that a person's attributions for success or failure ultimately determine 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).

The theory enables us to conclude that students will exercise persistency at academic tasks if they attribute their academic success to either internal, unstable factors over which they have control (e.g. effort) or internal, stable factors over which they have little control but which may sometimes be interrupted by other factors (e.g. ability disrupted by occasional bad luck). Therefore, one way to arouse students' motivation is to change their beliefs and attributions. Weiner's theory has wide application in the fields of education, law, clinical psychology, and the mental health domain. Sweeney, Moreland and Gruber (2005) concluded that successful students whether male or female made internal attributions and were pleased with their performance. Hau and Sallil (1990) revealed that high expectancies in examinations were generally related to positively perceived present attainments and more controllable attributions in the subject of Mathematics. Addiba (2004) concluded in her study that high achievers significantly attributed the outcomes of their success and failure to effort and ability and the low achievers to luck and task difficulty. 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. In their study by Cao and Bishop (2001) differences were found in the attribution patterns of students from China and Australia. Students from China view environment and effort as important factors of success in mathematics, while students from Australia regard task and environment as important for their success in mathematics. Chinese students attribute their failure in mathematics to lack of effort more than to other factors, while Australian students attribute their failure in mathematics to task difficulty more than to the other factors. Tariq et al (2011) investigated gender differences among attribution patterns of students, where girls showing lower levels of extrinsic motivation and taking more responsibility for their failure as compared to boys.

Objectives

The main objectives of the study were:

1. To measure the attribution patterns of mainstream schools and to find out students with high and low attributions
2. To find out mean attribution and mean achievement scores of both high and low attribution groups of students belonging to mainstream schools
3. To draw a comparison between academic

achievement of students of both high and low attribution groups

Hypotheses

Following were the research hypotheses of the study:

1. There is significant difference between the mean achievement scores of low and high attribution groups belonging to mainstream schools.
2. There is no significant difference between the mean achievement scores of extreme low and extreme high attribution groups belonging to mainstream schools

Method

All male and female students of 10th grade, studying in 606 mainstream schools with 16388 students were the population of the study. For the purpose of selection of the sample two-stage cluster sampling procedure as suggested by Gay (2002) was used, it was also suggested by him that schools and classrooms are ready-made clusters. A sample of 260 students (10 clusters of girls and 16 clusters of boys) was selected from 10 mainstream schools. The procedure of cluster sampling was adopted initially to select schools followed by random selection of students from the selected schools. For the purpose of measuring attribution patterns of students, a five point rating scale was developed by using Weiner theory. The items of the scale were to be responded on the scale of strongly disagree, disagree, uncertain, agree and strongly agree. To calculate reliability of the constructed scale, internal consistency method (rationale equivalence reliability) was employed for this purpose Kr-21(Kuder Richarson-21) formula was used and the reliability coefficient found was 0.86. The achievement scores of students were taken from the gazettes issued by Rawalpindi and Islamabad Boards of Intermediate and Secondary Education on their subsequent examination held in April 2010. This scale was personally administered to each student of the sample in classroom setting. 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 classification was made i.e. high attribution group and low attribution group. 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

The results of the study are presented with the support of following tables:

Table 1

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

Categories	Mean	SD	SEmean	t	p
High attribution group	431.03	28.62			
			4.89	3.90	<.05
Low attribution Group	307.88	47.72			
<i>df=258, t.05=1.90</i>					

The table above 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. The first hypothesis was therefore retained. It was found that high attribution group did well on subsequent examination. It means the students from high attribution group generally attributed their success to internal factors like effort and ability, whereas the students belonging to low attribution group blame external factors for their low achievement.

Table 2

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

Categories	Mean	SD	SEmean	t	p
Extreme high attribution group	455.06	14.93			
			4.02	46.20	<.05
Extreme low attribution group	269.30	29.85			
<i>df=137, t.05=1.96</i>					

The above table indicates that the difference between the average achievement scores of the extreme high attribution and extreme low attribution groups was 185.76. This difference here was highly significant at .05 level of confidence. The second hypothesis was therefore rejected. The difference being in favor of extreme high attribution means that extreme high attribution group did well on subsequent examination, thus supporting Weiner's attribution theory.

Discussion

Students are often questioned why they have failed? Or why they have succeeded? If psychological perspective is taken into consideration, it might be seen that the answer to this question affects a student's future in terms of the

student's expectations of success, emotional reactions, and persistence at achievement-related tasks (Gagne, Yekovice & Yekovice, 1993). 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. Hau and Salilif (2002) revealed the similar results as given by the present study that students attribute their positive attainments to themselves. The present study results also bear similarity with Addiba (2000) findings, that the high achievers prefer to attribute their outcomes to effort and ability and the low achievers generally to luck and task difficulty. Similarity of results was observed in the study conducted by Sweeney, Moreland and Gurber (2005) as students generally make internal observations in case of success. Thus the results confirmed Weiner theory of achievement motivation, which held that students having high attributions about their academic scores obtained by them in the previous examination perform better in the subsequent examination.

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. 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

Attribution patterns of students greatly affect their academic performance and their approach to studies in future. There are several methods that have been used to change attributions in the past like role modeling, reinforcement techniques and persuasion from teachers. However, none of these methods can possibly work if the child is not enthusiastic about succeeding in the first place. Therefore, it would be useful for teachers to use incentives to make the children care, such as token economies or reward system. In the classroom, the teachers should communicate high prospect for student performance and facilitate them to achieve these classroom goals. Students must be enabled to attribute academic success or failure to effort than ability. Teachers must not show sympathy or pity when students fail it conveys the idea that students lack ability. Similarly teachers should downplay the influence of

luck on student achievement. Some teachers ignore students who are having a hard time and therefore add to the students' unhealthy attributions, this attitude must be avoided. The level of task difficulty must be lowered down to enable the students to reach their goals. As teacher we should help students to develop mastery orientation than performance orientation by helping them focus upon learning the task rather than winning or losing.

References

- Addiba, F. (2004). *Study of Attributions of Low and High Achievers about the Perceived Causes of their Success and Failure*. PhD Thesis, (Unpublished). Rawalpindi: University Institute of Education and Research, University of Arid Agriculture.
- Beck, R.C. (2003). *Motivation Theories and Principles*. Singapore: Pearson Education Ltd
- Bempechat, J. (1999). *Attribution Theory*. From <http://education.calumet.purdue.edu/vockell/EdpsyBook/Edpsy5/edpsy5_attribution.htm> (Retrieved July 25, 2007)
- Boruchovitch, E. (2004). A Study of Causal Attributions for Success and Failure in Mathematics among Brazilian Students. *International Journal of Psychology*, 38(1): 53-60
- Cao, Z. Bishop, A. (2001). *Students Attributions of Success and Failure in Mathematics*. 24th Annual MEGRA Conference, Sydney: Monash University
- Gagne, E., Yekovice, C.W., Yekovich, F. (1993). *The Cognitive Psychology of School Learning* (2nd ed). New York: HarperCollins College Publishers.
- Gay, L.R. (2000). *Educational Research Competencies for Analysis and Application* (Fifth Edition). Florida: Florida International University.
- Hau, K.T., Salili, F. (1990). Examination Result Attributions, Expectancy and Achievement Goals of Chinese Students in Hong Kong. *Educational Studies*, 16: 17-31.
- Kassin, S. , Fein, S. And Markus, H.R. (2008). *Social Psychology*. New York: Wadsworth Publishing Company
- Mezulis, A. H. et al (2004) Is there a Universal Positively Bias in Attributions? A Meta Analytic Review of Individual, Developmental, and Cultural Differences in Self erving Attributional Bias. *Psychological Bulletin*, 130, 5, 711-717
- Murray, J., Thompson M. E. (2009). An application of Attribution Theory to Clinical Judgement. *Europe's Journal of Psychology*, 3: 96-104
- Ross, A. J., Davies, J. B. Clarke, P. (2004). Attributing to Positive and Negative Sporting Outcomes: A structural analysis. *Athletic Insight the online journal*, 6:3, 770-788
- Stoeber J, Becker C 2008. Perfectionism, achievement motives, and attribution of success and failure in female soccer players. *International Journal of Psychology*, 43 (6): 980-987
- Sweeney, P.D., Moreland, R.L., Gruber, K.L. (2005). Gender differences in performance attributions - Students explanations for personal success or failure. *Sex Roles*, 8(4): 359-373.
- Tariq, et al (2011). The Relationship between Intrinsic Motivation and Academic Achievement of Male and Female Students at University level in Pakistan: A case Study. *Journal of Education and Vocational Research*, 2(5), 154-161
- Weiner, B. (1986). *An Attribution Theory of Motivation and Emotion*. New York: Springer-Verlag Inc.

Received: May 19, 2012

GUIDELINES FOR AUTHORS

Manuscript should be double-spaced typewritten (do not justify) printed on one side of 8.5 x 11 inches white paper. It should be prepared according to Publication Manual of the American Psychological Association (5th ed.). Manuscript must include an abstract of approximately 120-150 words.

***Key words** The authors must provide the preferred **key words** for the study.*

***References** Complete reference list must be prepared according to APA manual.*

***Double Blind Review** The manuscript will be blind reviewed by the members of the Editorial Board of FWU Journal of Social Sciences. It should not contain any clue to the author's identity. The name(s) of author(s), and affiliation should be given on the cover page.*

Authors are requested to provide:

Two hard-copy printouts of the manuscript along with a soft copy through e-mail attachment file or on a computer disk

Soft copy of turnitin reports (if the paper is already checked for plagiarism).

A signed cover letter from all authors stating that the manuscript is not submitted for publication elsewhere.

A brief note about the author / authors. It must include postal and email addresses and departmental affiliation at the time of the study: acknowledgments / grant related information etc.

Permission letter for the copyrighted material included in the manuscript (e.g., tables/figures, test material) borrowed from any other source.

Address for manuscript submission and all correspondence:

**The Editor
FWU Journal of Social Sciences,
Shaheed Benazir Bhutto Women University Peshawar
Ph: 92-91-2593230 - Fax: 92-91-9212422
E-Mail: mahnazirr@gmail.com
journal@fwu.edu.pk**

FWU Journal of Social Sciences is a research journal published biannually by Shaheed Benazir Bhutto Women University Peshawar (formerly known as Frontier Women University Peshawar). Its first issue was published in 2007. The Journal provides a forum for publication of original papers on a variety of issues pertaining to social sciences. Preference is given to contributions based on empirical research. However, brief reports, book reviews and theoretical articles of immense importance / relevance for social scientists are also published. We hope that researchers in their fields of specialization will enthusiastically contribute to this journal and enable others to benefit from their empirical studies.

This Journal has, on its Editorial Board, 87 renowned experts from USA, UK, Canada Australia, Cairo and Pakistan, with expertise in different areas of social sciences, such as, Psychology, Education, Management Sciences, Social Work, Sociology, Anthropology, History, Economics, Political Science and Mass Communication. The scheme of publication employs a double-blind reviewing process. It is recognized by **Higher Education Commission** of Pakistan and is placed in category Y. The contents of FWU Journal of Social Sciences are also indexed / abstracted in ProQuest, an online service through its Social Sciences Module. The Website is <http://proquest.umi.com>. FWU Journal of Social Sciences is also included in EBSCO' Library products, USA. Journal is also available on www.sbbwu.edu.pk

We extend our invitation to all social scientists to make scholarly contributions to FWU Journal of Social Sciences to make it a success.

Annual Subscription Rates
Individuals

Rs.300.00 per year in Pakistan and US \$25.00 for foreign countries

Institutions

Rs. 400.00 per year in Pakistan and US \$30.00 for foreign countries