₹ 200 ISSN - 2249-555X
Volume : 1 Issue : 8 May 2012

Journal for All Subjects

www.ijar.in

Listed in International ISSN Directory, Paris.

ISSN - 2249-555X

Indian Journal of Applied Research

Journal for All Subjects

Editor,
Indian Journal Of Applied Research
8-A, Banans, Opp. SLU Girls College, New Congres Bhavan, Paldi,
Ahmedabad-380006, Gujarat, INDIA
Contact.: +91-9824097643 E-mail : editor@ijar.in

INDEX

Volume : 1 | Issue : 7 | May 2012 ISSN - 2249-555X

Research Paper Education

Academic Achievement In Relation to Time Perception and Coping Styles

* Dr. D. Hassan ** Dr. V. Tulasi Das

* Dept. of Education, Acharya Nagarjuna University Ongole Campus, Ongole. A.P.

** Dept. of HRM, Acharya Nagarjuna University, Nagarjunanagar, Guntur

ABSTRACT

This investigation was conducted to study Academic Achievement in relation to Time Perception and Coping Styles in adolescent students. 19 male and 20 female students of Inter standard were administered Albert Einstein College of Medicine Coping Styles Questionnaire {AECOM-CSQ}. Perception of time was measured by production method. Marks scored by the subjects in Intermediate examination were used as an indicator of academic achievement. One way ANOVA and correlation analysis revealed that: 1) High achievers are lower on coping styles: suppression and minimization when competed to low achievers and higher in seeking succorance; 2) The coping pattern and time perception of both boys and girls are similar; 3) Low achievers tend to overestimate time and are more likely to use suppression and blame it as coping styles; 4) Accuracy in time perception is correlated to seeking succorance as coping style. While providing counseling to adolescents, emphasis should be laid on accuracy of time perception and adequacy of coping styles to enhance academic achievement and adjustment.

Keywords : Academic achievement, time perception, coping styles, Adolescent students

Introduction:

Shapiro (2000) defines academic achievement as academic assessment of performance. Following this definition, curriculum-based assessment manifested in grade points or marks obtained in examinations are considered. Academic achievement and its correlated is a popular field of research. Many factors contribute to academic achievement: the major ones are intelligence, adjustment; motivation; family relationships; self-esteem and self-confidence; peer group relation; extroversion; coping and time perception. Time perception has been found to be very important in determining academic achievement. A number of studies have showed a positive correlation between academic achievement and time perception (Achamamba, 1990; Josephs&Halan, 1995; Promod, 1996).

Coping also plays a crucial role in student's academic performance Piekarska (2000); Aronson (2001) and several others have reported that academic achievement and coping are positively correlated. For Goldensor (1984) a time perception is an awareness of passage of time, including the ability to estimate time intervals, to tell time accurately by clocks as well as the ability to judge time duration by circadian rhythm. Although time is one of the most equitably distributed resources, some people spend it much more wisely than others. For Schiff man (2201) the nature of time pervades many areas of intellectual thought particularly literature, philosophy, physics and biology. Cottle (1976) opined that perception of time is influenced by various factors such as age, sex, status, temperature, mood, anxiety, achievement, social class etc. He has also mentioned that, as a subject of research, time has been useful to students of behavioral science in a different way. It continues to be treated as a variable against which, or with which, behavior may be observed.

Coping with stress and anxiety is an everyday requirement for normal human growth. Rogers (1972) stated that adolescence is a time when coping is very important, since many new experiences and responsibilities are thrust upon the individuals during this period in a variety of contexts. These settings include schools, home, peer groups and so on. According to Moriarty et.al. (1976) Adolescent's aspiration for continued education, their overall adequacy in dealing with their personal lives indicate coping adequacy.

Citing Lazarus, Frydenberg, (1997) stated that coping is the cognitive and behavioral effort to manage specific external and internal demands that appear as taxing or exceeding the resources of a person. Coping actions are found to be closely linked to various factors. Parson et.al (1996); Tung and Bimaljeet (1997); Demello and Imms (1999) and several others have reported that age, sex, personality type, cultural background etc, have a tremendous impact on the coping process of an individual.

Citing Munsch et.al. Frydenberg (1997) reported that schooling constitutes a major source of stress in the life of adolescents. This is also confirmed by studies in Canada, Singapore and Hong Kong. Students in their later adolescence and early adulthood deal with many kinds of academic demands or expectations. We assume that their experience of stress is related to their appraisals of demand and accordingly selection of coping strategies. Coping and adjustment problems can be seen from the very beginning in a child's life as he enters into an educational institution. Lack of proper coping affects the adjustment and the mental health of the students and in turn brings a negative effect with regard to academic achievement. In the 21st century, when life has become faster than ever before, time management has become an important factor related to success in any performing situation. Weiten and Lloyd (2003) describe time management as one of the components of problems focused coping.

If student counseling is provided at the proper time, it will be easy to detect their stresses nd adequate help could be provided to eliminate these stresses by choosing the appropriate coping strategies. Student counseling should also emphasize ways for increasing accuracy of time perception so that they can allot time to various tasks which could help them to manage their time in a better way. Therefore, the present investigation was undertaken to study academic achievement in relation to time perception and coping in adolescents students.

Materials and Methods:

Sample: The sample for the study, selected by sample ran-

dom sampling, consisted of 39 students (19 M, 20 F), studying in commerce and science divisions of a private school at prakasam district of A.P.

Tools:
Academic Achievement: Following the definition by Shapiro (2000), marks scored by the subjects in Intermediate Examination were used as an indicator of academic achievement.

Time Perception: Perception of time was measured by production method, which was successfully used in the earlier research studies conducted by Krishna and Sinha (1977).

Coping: The AECOM coping scale for the measurement of coping styles is a questionnaire based on psycho-evolutionary theory of emotion developed by Plutchik in 1980. This scale consists of 87 items, each rated by the subject on a 4-point scale ranging from 'never' to 'often' weighted 0to 3. It is based on the expressed opinion that the way each individual copes with stressful life events is relatively independent of his or her emotional or psychopathological state and is characteristic of him or her. The internal reliability of AECOM – CSQ and Coefficient alphas for the 8 subscales are reported to be quite high. Though the validity of this scale is not mentioned by the author, it was used successfully in many studies (Plutchik and Conte, 1989; Langerin et.al. 1989; Rim, 1990).

Procedure
First the AECOM coping scale was given to all the subjects. They were instructed to write their personal details on the top of the answer sheet. They were directed to read all the 87 questions and to indicate their responses in any one of the 4 options. Response alternatives were 'never', 'rarely', 'sometimes', or 'often'. They were also instructed not to miss any questions and mark their responses sincerely. After half an hour, estimation of time perception by each subject was made independently. In this, each one of them was asked to estimate a period of 30 sec. by counting aloud at the rate of one count per second. Their estimation of 30 secs. i.e., the total time taken to count form 1 to 31 was measured.

Results and Discussion
Table-1: One-way ANOVA of Coping Styles between the Achievement Groups

Variables	Sum of Squares		Mean of Squares		F' Ratio
	Between Group	Within group	Between Group	Within group	
Minimization	122.2051	759.3846	61.1026	21.0940	2.8967
Suppression	903.4359	969.5385	451.7179	26.9316	16.7228**
Seeking Succorance	109.8974	421.8462	54.9487	11.7179	4.6893*
Replacement	53.2821	631.6923	26.6410	17.5470	1.5183
Blame	29.2821	383.3846	14.6410	10.6496	1.3748
Substitution	40.6667	658.3077	20.3333	18.2863	1.1119
Mapping	7.1282	463.8462	3.5641	12.8846	.2766
Reversal	55.5897	516.0000	27.7949	14.3333	1.9392

*P>0.05level of confidence.
**P>0.01level of confidence

One way ANOVA was computed between the scores on 8 coping styles for the 3 groups of achievers. The details of values obtained are shown in Table-1. It indicates that 'F' values for suppression and seeking succorance are significant. 'F' value for minimization also is near the significant value.

Table-2: Mean Difference between Groups on Coping Styles

	Variables	Mean	S.D.	Standard Error	Significance of Mean Difference		
					Group 1	Group 2	Group 3
MINIMIZATION	High Achievement (Group 1)	19.8462	4.7054	1.3051			
	Average Achievement (Group 2)	20.8462	4.5064	1.2499			
	Low Achievement (Group 3)	24.0000	4.5644	1.2659	*		
SUPPRESSION	High Achievement (Group 1)	13.2308	6.2203	1.7252			
	Average Achievement (Group 2)	17.7962	3.9823	1.1045	*		
	Low Achievement (Group 3)	24.9231	5.1228	1.4208	*	*	
SEEKING SUCCORANCE	High Achievement (Group 1)	22.8462	3.8481	1.0673		*	*
	Average Achievement (Group 2)	19.5385	3.1521	.8742			
	Low Achievement (Group 3)	19.0769	3.2265	.8949			

* indicate significant mean difference at 0.05 levels

Details of this table are shown in appendices.
In order to estimate the actual difference in coping styles between different pairs of achievement groups, Multiple Range Test was computed for suppression, seeking succorance and minimization, Details of the results are shown in the Table-2. Higher mean of high achievers on seeking succorance when compared to other groups, indicates that they seek assistance from others to solve their problems. At the same time low achievers do not seek help from others to improve their academic performance or to solve their problems. This is likely to negatively affect their school performance and leads to low academic achievement.

Significantly higher mean on suppression for low achievers than for the others 2 groups shows that the low achievers avoid the person or problem that they believe which created the situation. It may lead to an increase in their present problems and negatively affect their academic achievement. Higher achievers are low on coping style, minimization, compared to low achievers who are significantly high on this coping style. It can be inferred from this finding that the high achievers have a tendency to give more attention to even minor problems and using the coping style—seeking succornace, they find solutions for their academic problems, while the low achievers usually ignore and avoid their problems.

Table-3: One-way ANOVA of Coping Styles and Time Perception between boys and Girls

Variables	Sum of Squares		Mean of Squares		F' Ratio
	Between Group	Within group	Between Group	Within group	
Minimization	11.7897	869.8000	11.7897	23.5081	.5015
Suppression	60.0033	1812.9711	60.0023	48.9992	1.2246
Seeking Succorance	.1620	531.5816	.1620	14.3671	.0113
Replacement	3.1191	681.8553	3.1191	18.4235	.1693
Blame	30.8351	381.8316	30.8351	10.3198	2.9880
Substitution	10.6349	688.3395	10.6349	18.6038	.5717
Mapping	5.7928	465.1816	5.7928	12.5725	.4608
Reversal	.5345	571.0553	.5345	15.4339	.0346

Time Perception	25.6875	947.2868	25.6875	25.3023	1.0033

To find out whether there is any significant difference between girls and boys in coping styles and in time perception, one-way ANOVA was computed as given in Table-3. The values in the table indicate that the boys and girls do not significantly differ in coping styles and time perception, which reveals that gender difference does not exist with respect to these variables.

Table-4: Correlation between Achievement Coping Styles and Time Perception

Variables	Mean	S.D.	r
Mark (Constant)	68.0769	19.0019	
Changing Variables: Minimization	21.5641	4.8166	-.3697*
Suppression	18.6410	7.0206	-.7009**
Seeking Succorance	20.4872	3.7408	.4171**
Replacement	22.9744	4.2457	-.1660
Blame	16.3333	3.2954	-.1820
Substitution	12.6410	4.2888	-.2958
Mapping	18.9744	3.5205	.1023
Reversal	17.4359	3.8784	-.3039
Time Perception	-1.6410	5.0601	.2239

**P>0.01 level of confidence
*P>0.05 level of confidence.

Details of correlation analysis between academic achievements, coping time perception is shown in table-4. The findings in Table-4 indicate that minimization and suppression are negatively correlated with academic achievement. This reveals that giving importance even to the minor doubts and clarifying these by gathering more information will facilitate high achievement. At the same time, ignoring and suppressing these problems and doubts may further increase the existing problems and may go beyond control which in turn affects the academic performance.

Table-5: Correlation between Time Perception and Coping Styles

Variables	Mean	S.D.	r
Time (Constant)	-1.6410	5.0601	
Changing :Minimization	21.5641	4.8166	-.550
Suppression	18.6410	7.0206	-.1889
Seeking Succorance	20.4872	3.7408	.3520*
Replacement	22.9744	4.2457	.0078
Blame	16.3333	3.2954	.0605
Substitution	12.6410	4.2888	-.0703
Mapping	18.9744	3.5205	-.0689
Reversal	17.4359	3.8784	-.0927

Table-5 gives the details of correlation between time perception and coping styles. A positive correlation between seeking succorance and time perception in Table-5 indicates that the person who is good in time perception, values time or is time conscious and has a tendency to seek help from others to complete the task in time. So it is clearly identified that the students who manage the time appropriately can ask help from others regarding academic or personal matters and find enough time to solve their problems without affecting their academic performance. Correlation of time perception and coping styles with respect to each achievement level is also found out. The performance of the 3groups, high, average, and low achievers, in time perception indicates a clear relation between academic achievement and time perception. While the 'N' for all the 3 groups remained same, 13 in each group, 8 low achievers showed a discrepancy of 5 or more points in estimation time; 5 average achievers showed a similar discrepancy and only 2 among the high achievers showed a discrepancy with a maximum of 5 points.

The correlation values in table-6 show the relationship between the accuracy of time perception and coping styles for the three groups. The values indicate that the coping style suppression is negatively correlated to time perception among high and average achievers and is positively related among low achievers. It was also found that the coping styles seeking succorance and blame are positively and significantly correlated with time perception among low achievers.

The significant correlation coefficients in Table-6 indicate that among high and average achievers accuracy of time perception is negatively related to suppression as a coping style. The accuracy of time perception is found to be directly and positively related to achievement. Therefore, this reveals that students who are time conscious rarely avoid the problem or situation that is referred by suppression. This is further strengthened by the significant positive correlation between time perception and suppression for the low achievers. As the errors in estimation time are found to be highest for low achievers they find it difficult to complete the academic task in time, which in turn compels them to avoid the details of the problem.

Table-6: Correlation between Time Perception and Coping Styles in Different Achievement Levels

Variables	High Achievement			Average Achievement			Low Achievement		
	Mean	S.D.	r	Mean	S.D.	r	Mean	S.D.	r
Time (Constant)	.3077	2.6578	---	-2.6154	4.5007	---	-2.6154	6.8985	---
Changing Variables									
Minimization	19.8462	4.7054	.841	20.8462	4.5064	.2332	24.0000	4.5644	-.1456
Suppression	13.2308	6.2203	-.3625*	17.7692	3.9823	-.9106**	24.9231	5.1228	.5150**
Seeking Succurrence	22.8462	3.8481	.1354	19.5385	3.1521	-.2332	19.0769	3.2265	.6987**
Replacement	21.4615	4.1955	-.1932	24.3077	3.6374	.9991	23.1538	4.6699	.1817
Blame	15.5385	3.0988	-.0521	15.9231	3.6392	-.2728	17.5385	3.0170	.5097**
Substitution	11.2308	3.7228	.2196	13.0769	4.7690	-.4442	13.6154	4.2728	-.0539
Mapping	19.3846	4.7177	-.3093	19.1538	3.1845	-.0452	18.3846	2.5013	-0.0383
Reversal	16.0000	3.4641	-.1810	17.3846	3.4530	.0272	18.9231	4.3677	.0011

**P>.0.01 Level of Confidence.
*P>.05 Level of confidence.

Another coping style that has emerged as significantly related to time perception is seeking succorance. The value indicates that for low achievers the tendency to seek help is positively related to time perception. That is, as their estimation of time is not accurate, they do not think of seeking help. The scores

for time perception also indicate that along with more errors in estimation of time the tendency for overestimation was more dominant for them. Hence it is clear that as low achievers do not experience the pressure of time in academic activities, they also tend to seek help less frequently.

Blame as a coping style that is found to be significantly and positively related to time perception among low achievers reveals that as the errors in estimation of time increase the likelihood of low achievement is more and the responsibility of failure is attributed to others as blame. However, when time perception and academic achievement were correlated for the combined group, the coefficient is not reaching the level of significance. The reason may be that the sample is not homogenous and sufficiently large enough with respect to level of achievement.

Conclusions:

The study therefore clearly indicates that there is a linear relationship among accuracy in time perception, coping styles and level of academic achievement. In order words time consciousness or punctuality is quality that would enhance academic achievement, which will indirectly improve the adjustment of the adolescent with better coping styles to deal with challenges. These results can be considered in helping low achievers specifically to use effective coping styles and in emphasizing the need for accuracy in time perception in general.

REFERENCES

1. Achamamba, B. (1990). Achievement Values Related to Future Time Orientation. Journal of Psychological Researches. Vol. 34(2), p. 85-89. 2. Aronson, R. (2001). At-Risk students Defy The Odds: Overcoming Barriers to Educational Success, Mary Land; Scarecrow Press Inc. 3. Cottle, T.J. (1976). Perceiving Time, USA: John Wiley& Sons Inc. 4. DeMello, L.R., and Imms, T. (1999). Self-esteem, Locus of Control and their Relationship to School Attitudes of Adolescencents, Psychological studies, Vol. 44(1-2), p.62-67. 5. Frydenberg, E. (1997). Adolescent Coping London: Routledge Publications. 6. Goldenson, S. (1984) A Longman Dictionary of psychology and psychiatry, New York: Longman Inc. 7. Josephs, R.A., and Halan, E.D. (1995) Bias and Accuracy in Estimation of Task Duration, psychological Abstracts, V. 82, n.8, 27962. 8. Krishna, P., and Sinha, K. (1974) Personality Adjustment and Time Perception in Normal Adolescents. Indian Journal of Applied Psychology, Vol. II n.l.p.26-30. 9. Langerin, R., Lang, R.A., Handy, L., and Majpruz, V. (1989) Identifying Violence proneness in Sex Offenders. Annuals of Sex Research, 2, 49-66. 10. Moriarty, A.E. et.al. (1976). Adolescents Coping New York Grune and Stratton Publication. 11. Parsons, S. et.al. (1996) Coping Strategies of Adolescent Males, British Journal of Educational Psychology, V.66.p.109-14. 12. Piekarska, A. (2000). School Stress, teachers Abusive Behavior and Children's Coping Strategies. Child Abuse and Neglect: The International Journal V. 24, n.11.p.1443-49. 13. Promod,S. (1996). Future Time Perspective, Cognitive Efficiency Achievement Motivation, Anxiety and Academic Performance among 11th Std. Girls and Boys, Indian Journal of Applied Psychology, V. 33, n.1. p. 34-38. 14. Rim, Y. (1990). Social Class Differences in Coping Styles. Personality and Individual Differences, 11, 875-876. 15. Rogers, D. (1972). The Psychology of Adolescence, Japan: Prentice Hall. Inc. 16. Schiffman, H.R. (2001). Sensation and perception, New York, John Wiley & Sons, Inc. 17. Shapiro, E.S. (2000) Academic Achievement of Performance in Alan E. Kazdin (Ed), Encyclopedia of psychology, V.1. U.S.A. Oxford University Press. 18. Tung, S., and Bimaljeet (1996). Personality a Coping strategies, Personality Studies and Group Behavior, V. 16-, pp.33. 19. Weiten, W. and Lloyd, M.A. (2003). Psychology Applied to Modern Life, Canada, Thomson Learning Inc.

Sara Publishing Academy
Indian Journal Of Applied Research
Journal for All Subjects

Editor,
Indian Journal Of Applied Research
8-A, Banans, Opp. SLU Girls College,
New Congres Bhavan, Paldi, Ahmedabad-380006.
Contact.: +91-9824097643 E-mail : editor@ijar.in

Printed at Unique Offset, Novatsing Rupam Estate, Opp. Abhay Estate, Tavdipura, Shahibaug, Ahmedabad