

PII: S232247701500030-5

Received 22 Jul. 2015 Accepted 24 Aug. 2015

Nature of Self-Concept and Academic Achievement: A Study on School Children

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ABSTRACT: The present article was undertaken to study six dimensions of self-concept and their relationship with academic achievement and to see the difference between boys and girls as well as urban and rural school going adolescents. The sample comprised 495 students reading in class X in West Bengal Government affiliated schools. Out of them, there were 255 boys, 240 girls, 248 urban and 247 rural adolescents. Self-Concept Questionnaire (Saraswat, 1999) was used for the evaluation of self-concept. Detailed mark sheets of all the students chosen in the sample who appeared in the secondary examination were collected from the West Bengal Board of Secondary Education. The marks obtained in this examination by the students were considered as the academic achievement score. Gender difference was found in physical, educational, intellectual and total self concept. Differences in case of physical and temperamental self concept to academic achievement.

Key words: Self-Concept, Academic Achievement, Gender, Urban, Rural etc.

INTRODUCTION

Educated manpower is the emerging need of any nation as educated and skilled human resource is asset for any country (Chetri, 2014). It becomes indispensable to develop human resource from the early stages of human life. Children are to be set to develop realistic aspiration encompassing their lives, education and prospects of the future. Therefore, correlates to academic achievement draw the attention of researches. In this context, psychosocial correlates are gaining importance. Self concept is such a psychosocial variable which is also responsible in effecting academic achievement of the students. The literature on psychological assessment is flooded with studies on self concept. Considerable amount of research has focused on whether women and men differ in self concept. Findings to date have been mixed. On the one hand, there is evidence of gender similarities in self concept when self concept is measured in terms of overall self evaluation (Chiu, 1990; Cranston and Leonard, 1990). On the other hand, there is evidence of gender differences in self concept (Hare-Mustin and Maracek, 1990), particularly when multidimensional measures of self concept are used (Stake, 1992). In recent years, there has been renewed interest in the studies of self-concept. Various researchers have defined self-concept in various ways. The self-concept is the accumulation of knowledge about the self, such as beliefs regarding personality traits, physical characteristics, abilities, values, goals, and roles (Parrey and Kumar, 2013). Generally, self-concept is a person's combined view of one's self (Doherty, 2011). It refers to the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence (Yahaya and Ramli, 2009).

Success in school depends on several factors, such as student's self-concept, interaction with teachers and peers and personal effort. The relationship between self-concept and academic achievement may help to predict achievements in conjunction with other related cognitive factors. reported Numerous studies have significant relationship between self-concept and academic achievement (e.g. Cockley, 2003; Cockley et al., 2001). Self concept is associated with better scholastic achievement test (Raju, 2013) and has a significant relationship between self-concept and academic achievement (Sikhwari, 2014; Archana and Chamudeswari, 2013).

From the review of literature it has been observed that self-concept and academic achievement are interrelated. Simultaneously, it is of decisive importance to focus upon the gender of the student which may also be a factor in determining student's self-concept and academic achievement.

Few researches have been found where there is a gender difference in self-concept. In a study (Brake, 2006) some differences were found out in adolescent between physical self-concept and gender where boys obtained higher scores than girls in relation to body image and physical activity. Michie et al. (2001) found that girl have lower self concept than boy.

Elitle (2005) reported that sex has an effect on the students' academic achievement. Herbert and Stipek (2005) concluded that there is no sex difference in academic achievement. Birenbaum and Nasser (2006) reported similar gender effect on achievement. Deary et al. (2007) found that there were sex differences in educational attainment. Penner and Paret (2008) reported that there is no significant difference between male and female in academic achievement. Steinmayr and Spinath (2008) found that sex differences are consistent in high school and college students' achievement. Freudenthaler et al. (2008) in their results showed that girls attained a higher level of school achievement than boys. Barkatsa et al. (2009) and Naderi et al. (2009) showed that there is no significant difference between academic achievement and gender. Many studies showed influence of gender on academic achievements; however it is not clear whether boys are better than girls or girls are superior to boys.

The concern about potential rural-urban differences in education outcome is not limited to this country, but rather appears to be a global issue. For quite some time, a general perception of the comparative inferiority of rural schools has prevailed. This view implies the existence of rural - urban differences in students' academic performance (Fan and Chen, 1999). Roscigno and Crowley (2001) reported that the academic performance of rural children typically lags behind that of urban children. Howley (2002) reported that there is no difference between rural and urban education. Usha (2007) revealed that urban pupils were found superior to rural pupils in their achievement. Bamman and Ksheersagar (2008) found that achievement of the pupils from urban areas were better than the achievement of pupils from rural areas. Joshi and Srivastava (2009) reported that the achievement of the pupils from urban areas was better than the achievement of pupils from rural areas.

Though different researches have taken up various studies regarding academic achievement in India and abroad, but no full-fledged study could be traced out with respect to the students in West Bengal. The review of the related literature with regards to the problem under investigation indicate that there are very few studies in which the variables including self concept, gender, rural and urban, have been studied in relation to the academic performance of the students.

Objective of the Study

The objective of the present study is to find out

1) The effect of gender (boys and girls) and region (urban and rural) on total self concept along with its six dimensions as well as academic achievement.

2) The relationship among total self concept, different dimensions of self-concept, and academic achievement between boys and girls as well as urban and rural students.

MATERIAL AND METHODS

Sample

Secondary schools affiliated to the West-Bengal Board of Secondary Education (WBBSE) were covered in the present study. Schools from urban and rural area of different districts were taken. Altogether 495 students, reading in class X, were included in this study out of which there were 255 boys and 240 girls, 248 urban and 247 rural adolescents. The age range of the students was from 15 to 18 years. Gender wise and region wise distributions of the students are presented in Figure 1 and 2.



Figure 1. Distribution of boys and girls students



Figure 2. Distribution of Urban and Rural students

Measures

The following measures were used in this study:-

1. Self-Concept Questionnaire (Saraswat, 1999): The Self-concept inventory provides six dimensions of self-concept, viz.. i) Physical ii) Social iii) Temperamental iv) Educational v) Moral and vi) Intellectual self-concept. It also gives a total selfconcept score. The inventory contains 48 items. So, each dimension contains eight items. Each item is provided with five alternatives. The summated score of all the 48 items provides the total self-concept score of a student. The minimum score obtained could be 48 and the maximum could be 240. A high score on this questionnaire was an indication of higher self concept while a low score showed low self concept. There is no time limit for responding all the items. Participants in this study have to read each item carefully and respond to it by marking a tick ($\sqrt{}$) on any one of the five responses given against that item.

2. Academic Achievement: Detailed mark sheets of all the students who appeared in the Madhyamik Examination conducted by West Bengal Board of Secondary Education (WBBSE) were collected from the sampled schools. The marks obtained by the students in this examination were considered as the academic achievement score of the students.

Procedure

The test was administered on the students. After collecting the data, the answer sheets were scrutinized carefully and scoring was done in accordance with the procedures laid down in the manual. In the second phase, Madhyamik Examination marks of all the students were collected from the WBBSE.

RESULTS AND DISCUSSION

Analysis of the data for the sample was carried out by using descriptive statistical technique and results regarding the relationships among six dimensions of self-concept and academic achievement have been presented in the following tables.

Means, Standard Deviation etc. were computed for boys and girls group separately for six dimensions of self concept and academic achievement. The results are presented in Table 1.

It was observed from Table-1 that there were variations in the scores of six dimensions of selfconcept and academic achievement. It was revealed from the sample that the number of boys was higher (N=255) in comparison to the girls (N=240). Significant 't' value for total self-concept score indicate that gender played a significant role in the total selfconcept score. In other words, average score of total self-concept for the boys group was significantly higher than the same for the girls group. Same types of results have been found in Chan's study (2005). He suggested that boy had generally higher self concept than girls because they were more likely to experience happiness, make decisions by themselves etc. Moreover, Girls do experience somewhat more intense and prolonged disturbance on the total self concept score as compared to males (Pauriyal, Sharma and Jatinder (2010). Gender difference was found to be significant in case of physical, educational and intellectual self-concept. From literature survey it has been found that girls at adolescent stage are over concerned about their looks and boys on the other hand believe that they have more athletic talent than girls and they are more advanced and strong than girls in physical skills. In the dimension of Intellectual selfconcept this may be due to the reason that males from adolescent years place more importance on their intellect. They are more careers oriented than girls at this stage and therefore have higher Intellectual selfconcept (Pauriyal, Sharma and Jatinder, 2010). Average score for the Boys group was marginally higher in comparison to the same for the girls group for each dimension except moral self-concept, though the difference was not significant.

On perusal of the table, it was evident that in case of Academic Achievement the obtained value of 't' ratio (1.356) was not significant but there was a gender variation. There are high gender inequalities in educational level in India. Specially, female education is not encouraged so much in India. From the previous studies it has been observed that out of 100 girls only one reaches the University stage and therefore, the dropout rate is maximum in case of women. There are several factors for which women are deprived in education. These are socio-economic and cultural factors, malnutrition, lack of access to schools, uninspiring school environment, parental attitude, teacher's behavior and attitude towards the girls' students, lack of sanitation facilities in educational institutions etc. (Dutta, 2004).

It has also been revealed from Table 1 that there is difference in total self concept and academic achievement between boys and girls though the difference is not significant in case of academic achievement. From the review of literature, it was between found significant differences the measurement of self-concept and academic performance of students (Obidigbo, 2002). Equally, males were found to score higher than females on the measured items.

Relationships among all the variables have been found out and the results are presented in the following tables. Correlation matrix of the variables for boys is presented in Table-2. The six dimensions of self-concept are found to be correlated with varying degree ranging from 0.058 (Physical and academic achievement) to 0.704 (total self-concept and intellectual self-concept). Significant correlation with total self-concept scores and each dimension of selfconcept is high as expected.

Correlation matrix of the variables for girls was presented in Table-3. The six dimensions of selfconcept were found to be correlated with varying degree and all the correlations were positive and significant. Significant correlation with total selfconcept score and each dimension of self-concept was high as expected and it had similarity with the boys result. It also reveals that educational, moral, intellectual and total self-concept is positively significant with academic achievement.

Means, Standard Deviation etc. were computed for urban and rural students separately for six dimensions of self concept and academic achievement. The results are presented in Table 4.

It was observed from Table-4 that there were variations in the scores of six dimensions of selfconcept and academic achievement. It was revealed from the sample that the number of urban (N=248) and rural (N=247) students are almost equal. Significant regional differences have been found out in case of physical and temperamental self-concept. On perusal of the table, it was evident that in case of Academic Achievement the obtained value of 't' ratio (1.531) was not significant but there was a regional variation as urban students had higher academic achievement than rural students.

Relationships among all the variables have been found out and the results are presented in Table No. 5 and 6. Correlation matrix of the variables for urban students is presented in Table-5. The six dimensions of self-concept are found to be correlated with varying degree ranging from 0.078 (temperamental selfconcept and academic achievement) to .736 (total selfconcept and intellectual self-concept). Significant correlation with total self-concept scores and each dimension of self-concept is high as expected.

Correlation matrix of the variables for rural students is presented in Table-6. The six dimensions of self-concept are found to be correlated with varying degree ranging from 0.068 (temperamental self-concept and academic achievement) to .746 (total self-concept and physical self-concept). Similar results have been found out in case of urban students also. Significant correlation with total self-concept scores and each dimension of self-concept is high as expected.

Table 1. Mean, SD and t-ratio for six dimensions of self concept and academic achievement for Boys and Girls

VARIABLES	BOYS	(N=255)	GIRLS	(N=240)	t- ratio	
	Mean	SD	Mean	SD	t- ratio	
Physical	28.04	3.765	25.51	4.391	6.886**	
Social	27.01	3.659	26.52	3.820	1.448	
Temperamental	30.52	3.430	29.93	4.208	1.698	
Educational	32.42	3.879	31.53	4.142	2.458**	
Moral	32.17	3.322	32.72	3.785	1.702	
Intellectual	24.87	4.009	23.81	4.219	2.883**	
Total Self-concept	175.04	13.781	170.04	16.258	3.694**	
Academic Achievement	402.20	163.713	383.56	140.445	1.356	
**Significant at 1% level						

Table 2. Correlation among the variables for Boys (N=255)

VARIABLES	Physical Sc	Social Sc	Temperamental Sc	Educational Sc	Moral Sc	Intellectual Sc	Total Self-concept	Academic Achievement
Physical Sc	1							
Social Sc	0.158*	1						
Temperamental Sc	0.390**	0.198**	1					
Educational Sc	0.307**	0.095	0.300**	1				
Moral Sc	0.167**	0.218**	0.254**	0.329**	1			
Intellectual Sc	0.441**	0.322**	0.288**	0.322**	0.187**	1		
Total Self-concept	0.667**	0.531**	0.637**	0.638**	0.554**	0.704**	1	
Academic Achievement	0.058	0.148*	0.084	0.094	0.069	0.134*	0.158*	1

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

Table 3. Correlation among the variables for Girls (N	J=240)
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VARIABLES	Physical Sc	Social Sc	Temperamental Sc	Educational Sc	Moral Sc	Intellectual Sc	Total Self-concept	Academic Achievement
Physical Sc	1							
Social Sc	0.257**	1						
Temperamental Sc	0.488**	0.208**	1					
Educational Sc	0.361**	0.151*	0.594**	1				
Moral Sc	0.231**	0.344**	0.129*	0.328**	1			
Intellectual Sc	0.376**	0.331**	0.298**	0.352**	0.371**	1		
TotalSelf-concept	0.702**	0.563**	0.698**	0.708**	0.589**	0.691**	1	
Academic Achievement	0.068	0.112	0.073	0.165*	0.135*	0.167**	0.142*	1

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

VARIABLES	Urban (N=248)	Rura	t- ratio	
	Mean	SD	Mean	SD	t- ratio
Physical	26.40	4.129	27.23	4.370	2.197*
Social	26.83	3.781	26.72	3.710	0.303
Temperamental	30.56	3.645	29.90	3.996	1.925*
Educational	32.10	3.979	31.88	4.084	0.613
Moral	32.47	3.471	32.40	3.656	0.196
Intellectual	24.02	4.102	24.70	4.162	1.820
Total Self-concept	172.39	14.962	172.84	15.509	0.326
Academic Achievement	403.65	163.733	382.63	140.967	1.531

Table 4. Mean, SD, t-ratio for six dimensions of self concept and academic achievement for Urban and Rural region

Table 5. Correlation among the variables for Urban Group (N=248)

VARIABLES	Physical Sc	Social Sc	Temperamental Sc	Educational Sc	Moral Sc	Intellectual Sc	Total Self- concept	Academic Achievement
Physical Sc	1							
Social Sc	0.191**	1						
Temperamental Sc	0.352**	0.247**	1					
Educational Sc	0.303**	0.136*	0.463**	1				
Moral Sc	0.189**	0.252**	0.203**	0.350**	1			
Intellectual Sc	0.396**	0.415**	0.326**	0.370**	0.303**	1		
TotalSelf-concept	0.645**	0.575**	0.662**	0.678**	0.574**	0.736**	1	
Academic Achievement	0.063	0.169**	0.078	0.127*	0.050	0.169**	0.170**	1

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).

Table 6. Correlation among the variables for rural students (N=247)

	Physical Sc	Social Sc	Temperamental Sc	Educational Sc	Moral Sc	Intellectual Sc	Total Self-concept	Academic Achievement
Physical Sc	1							
Social Sc	0.253**	1						
Temperamental Sc	0.553**	0.169**	1					
Educational Sc	0.405**	0.123	0.467**	1				
Moral Sc	0.156*	0.303**	0.152*	0.285**	1			
Intellectual Sc	0.438**	0.251**	0.293**	0.331**	0.244**	1		
Sc_Total	0.746**	0.525**	0.692**	0.683**	0.532**	0.672**	1	
Ac_AchvTotal	0.003	0.079	0.068	0.114	0.165**	0.095	0.097	1

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).

CONCLUSION

Results revealed form Table-1 that there exist significant differences in case of physical, intellectual and total self-concept between the boys and girls group. The reason behind the difference may be due to combination of several factors such as parental attitude, child rearing practices in home etc. Most of the parents consider their sons as the asset of the family and rear them in a different way from the girls. Besides that, another reason may be as the women are socially and culturally handicapped, their selfconcept may not grow properly from childhood. The average scores of girls in academic achievement were higher in comparison to the boys. It may be stated that the girls had a propensity to excel in academic achievement though social and cultural factors are not always in favour of them. The objective of this study was to investigate the nature of self-concept and academic achievement in girls comparing to the boys. From this empirical investigation it can be concluded that as such no gender disparity has been found out in case of Academic Achievement. Girls have shown more or less similar results in comparison to their boy's counterpart. As a consequence it may be said that women gradually try to achieve their goal and establish them in the proper place of the society.

The results in the present study revealed that the overall self concept was positively and significantly related to academic achievement (Tables 2 and 3), indicating that as the students' educational, intellectual, moral self concept increases the academic

achievement also improves. This study also partially corroborates with the study of Kaur, 2012. Self concept is the totality of one's way of seeing himself. When a person feels good about himself in any terms whether it might be physical appearance, intelligence, educational, temperament he approves himself, feel more cheerful, confident, competent and naturally get the feeling of adequacy, which might in turn help him for his academic success. The results are congruent with Nuthana (2007) who reported that there was a positive and significant relation between self concept and academic achievement. However, in the present investigation, sample was restricted to urban area of only two districts of West Bengal namely Kolkata and South 24 Parganas. If urban areas of all the districts of West Bengal would have been selected then this limitation could be overcome. It could be better also if the analysis could be done with the results of rural areas. The matter also may be pursued further by considering other related socio-economicdemographic variables.

Need for investigation regarding gender equality especially in school students for their academic achievement is considered to be a step to reflect implementation of the national policies.

REFERENCES

- Archana, K., and Chamudeswari, S. (2013). Self-Concept and Academic Achievement of Students at the High School. Journal of Sociological Research. 4: 105-113.
- Bamman S.S. and Ksheersagar S.S. (2008). Self Concept and Academic Achievement among Students, Indian Journal of Psychometry and Education, 38 (1): 57-59.
- Barkatsas, A., Kasimatis, K & Gialamas, V. (2009). Learning Secondary Mathematics with Technology: Exploring the Complex Interrelationship between Students' Attitudes, Engagement, Gender and Achievement", Journals of Computers & Education, 52 (3): 562-570.
- Birenbaum. M & Nasser. F. (2006). Ethnic and Gender Differences in Mathematics Achievement and in Dispositions towards the Study of Mathematics, Learning and Instruction, 16(1): 26-40.
- Brake, N. A. (2006). Optimising Embodied Selfconcepts in Children, Adolescents and Young Adults. Ph D Thesis, University of Sydney.
- Chan, Kwok-wai and Siu-mui Chan (2005). Perceived Parenting Styles and Goal Orientations: A Study of Teacher Education Students in Hong Kong. Research in Education 73: 9-21.
- Chetri S. (2014). Self-Concept and Achievement Motivation of Adolescents and their relationship

with academic achievement, International Journal of Advancements in Research and Technology, 3(5): 236-253.

- Chiu, L. (1990). The relationship of career goal and self-esteem among adolescents. Adolescence, 25: 593–597.
- Cockley, K. (2003). What do we know about the motivation of African American students? Challenging the anti-intellectual myth. Harvard Education Review, 73 (4): 524-558.
- Cockley, K., Bernard, N., Cunningham, D. and Motoike, J. (2001). A psychometric investigation of Academic Motivation Scale using a US sample. Measurement and Evaluation in Counseling and Development, 34: 109-119.
- Cranston, P., & Leonard, M. M. (1990).The relationship between undergraduates' experiences of campus micro-inequities and their self-esteem and aspirations. Journal of College Student Development, 31: 395–401.
- Deary, I. J., Strand, S., Smith, P and Fernandes, C. (2007). Intelligence and Educational Achievement, Intelligence, 35, 1, 13-21.
- Doherty, C. C. (2011). Self-Efficacy of LPNs, Washington State University, College of Nursing, 33
- Dutta, Subhabrata (2004). Women Education and Gender Disparity: A study in a rural block of West-Bengal. Issues on Empowerment of Women, Utpal Kr Dey and BholaNathGhosh (Eds.), MohitPublocation, New Delhi, 337-353.
- Elitle T.M. (2005). Do Gender and Race Matter, Explaining the Relationship between Sports Participation and Achievement, Sociological Spectrum, 25(2): 177-195.
- Fan Xitao and Chen M. J., (1999). Academic Achievement of rural school students: A multiyear comparison with their peers in suburban and urban schools. Journal of research in Rural Education, 15, 1, 31-46.
- Freudenthaler, H. H., Spinath, B and Neubauer, A. C. (2008).Predicting School Achievement in Boys and Girls, European Journal of Personality, 22: 231-245.
- Hare-Mustin, R. T., & Maracek, J. (1990). On making a difference. In R. T. Hare-Mustin & J. Maracek (Eds.), Making a difference: Psychology and the construction of gender (pp. 1–21). New Haven, CT: Yale University.
- Herbert. J & Stipek. D. (2005). The Emergence of Gender Differences in Children's Perceptions of Their Academic Competence, Journal of Applied Developmental Psychology, 26(3): 276-295.
- Howley, C. (2002), Research about Mathematics Achievement in Rural Circumstance, Working Paper, No.4, Appalachian Collaborative Centre for

the Study of Learning, Assessment and Instruction in Mathematics, Athens, Ohio University, Ohio.

- Joshi, S. and Srivastava R. (2009). Self-esteem and Academic Achievement of Adolescents. Journal of the Indian Academy of Applied Psychology, 35, Sp. Issue, 2009: 33-39.
- Kaur, Kamaljit (2012). Influence of Self Concept on Academic Achievement of Adolescents, International Indexed and Referred Research Journal, ISSN – 2250-2599, 1(1): 43-45.
- Michie, F., Glachan, M., & Bray, D. (2001). An evaluation of factors influencing the academic self-concept, self-esteem and academic stress for direct and reentry students in higher education. Educational Psychology, 21(4): 455-472.
- Naderi, Habibollah, Abdullah Rohani, Hamid TengkuAizan, SharirJamaluddin, Kumar V. (2009) Intelligence, Creativity and Gender as Predictors of Academic Achievement among Undergraduate Students, Journal of American Science, 5, 3, 8-19.
- Nuthana, P. G. (2007), Gender Analysis of Academic Achievement among High School, Unpublished Doctoral Thesis, University of Agricultural Sciences, Dharwad
- Obidigbo, G.C.E. (2002). The relation between Self-Concept and Academic Performance of Nigerian students. FE Psychologia 10(2): 22-27.
- Parrey, A. A. and Kumar, I. A (2013), International Journal of Current Research. 5, 03, 520-522,
- Pauriyal Kavita, Sharma Seema and Gulati Jatinder (2010) Journal of Psychology, 1 (2): 113-118.
- Penner, A.M. & Paret. M. (2008). Gender Differences in Mathematics Achievement: Exploring the Early Grades and the Extremes, Journals of Social Science Research, Vol. 37(1), retrieved from http://www.elsevier.com/wps/find/journaldescripti on, 2008, accessed on 28 August, 2009, 239-253.
- Raju, S. S. (2013). Impact of Self-Concept on Scholastic Achievement of 9th class students in physical sciences: IOSR Journal of Humanities and Social Sciences (IOSR-JHFF), 9(5): 129-133.
- Roscigno, V. J. and Crowley, J. L. (2001). Rurality, Intuitional Disadvantage and Achievement/ Attainment, Rural Sociology, 66: 268-298.
- Saraswat, R. K. (1999). Manual for Self-concept Questionnaire. National Psychological Corporation, Agra.
- Sikhwari T.D. (2014). A study of Relationship between Motivation, Self-Concept and Academic Achievement of Students at a University of Limpopo Province, South Africa. International Journal of Educational Science, 6(1): 19-25.
- Stake, J. E. (1992). Gender differences and similarities in self-concept within everyday contexts. Psychology of Women Quarterly, 16: 349–363.

- Steiner, R and Spinath, B. (2009). Sex Differences in School Achievement: What are The Role of Personality and Achievement Motivation? European Journal of Personality, 22, retrieved from http://www.interscience.wiley.com, 2008, accessed on 12 January 2009: 185-209.
- Usha, P. (2007). Emotional Adjustment and Family Acceptance of the Child, Correlates for Achievement. Edutracks, 6(10): 25-27.
- Yahaya, A. and Ramli, J. (2009). The relationship between Self-Concept and Communication Skills towards Academic Achievement among Secondary School Student in Johor , Bahru International Journal of Psychological Studies. 1(2): 25-26.