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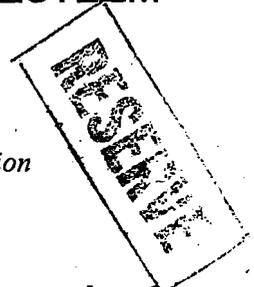
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EARLY ADOLESCENTS' SELF-ESTEEM AND ACHIEVEMENT

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Abstract

This study examined the relationship between self-esteem and academic achievement in early adolescents in randomly selected primary school classes. Self-esteem was measured by a self-report questionnaire while school achievement was measured by scores from mid-year examinations designed by teachers. The results of a t-test showed significant differences in self-esteem between boys and girls, with girls reporting lower levels of self-esteem. While the study found no significant gender differences in achievement, there were however significant correlations between self-esteem, age, and school achievement.

Introduction

Self-esteem is a widely discussed construct in psychological discourse because it is believed to be essential for the social and psychological well being of individuals, (Kohn, 1994). Feminists however view it with suspicion, believing that scientific research has tended to conceptualise and operationalise self-esteem in ways which marginalise females, (Ellen, 1998, Gergen, 1985). This article seeks to define and measure self-esteem of early adolescents, explore the way gender interacts with it and how the construct influences academic achievement.

Self-esteem has been defined in several ways. Harter (1990) defined it as how much a person likes, accepts, and respects himself or herself overall as a person. There is disagreement between those who argue that self-esteem is the degree to which a person accepts him or herself (Brownfain 1952) and those like Allport (1937), who argue that it is the person's evaluation of aspects of him or herself - the feeling of worth (Coopersmith, 1967). Rosenberg (1979) simply defined self-esteem as a favourable or unfavourable attitude towards the self.

There are various ways of assessing self-esteem ranging from the possible-selves approach, (Markus & Nurius 1986) to those who suggest that the evaluations of the self that form the basis of self-esteem result from (a) the individual's appraisal of the descriptive content of the self to (b) the individual's internal standards or aspirations, (Harter, 1999; Rosenberg, 1979; Wylie, 1979; Lawrence, 1981). The most commonly used method in studies of self-esteem is the self-report questionnaire which this study will use. The study also assumes that self-esteem is internal, stable, global, and universal, (Jusz, 1985).

Researchers have distinguished between global self-esteem and academic self-esteem (Simmons & Rosenberg, 1975; Marsh, 1990). In Zimbabwe some studies have been made to validate self-concept and self-esteem scales such as the Academic Self-Description Questionnaire (ASDQ) but this work has not been extended to early adolescents, (Watkins, Akande & Mpfu, 1996, Watkins & Mpfu, 1994).

Self-esteem and Academic Achievement

Self-esteem has been shown to have some relationship with academic achievement (Coopersmith, 1968, Lawrence, 1971). People who have good self-esteem have a clearly differentiated self-concept (Franken, 1964). Motivational theories suggest that academic motivation positively influences academic performance. Self-determination theory of Deci and Ryan (1985) argues that academic behaviour can be seen as intrinsically or extrinsically motivated. It suggests that high academic performance is dependent upon an individual's feeling of autonomy. Furthermore, students of autonomy supporting teachers have higher self-esteem and higher levels of academic achievements than those taught by more controlling ones, (Reeve, Bolt & Cai, 1998).

Byrne and Shavelson (1987) found that there were differences in self-concept between adolescent males and females. Adolescent males have higher academic self-concepts, even in the absence of substantive proof.

Other researchers have found no gender difference in self-esteem among adolescents. (Harter 1982)

Although research results are unclear regarding the relationship between gender and self-esteem, Kearney Cooke (1999) suggests that evidence points in the direction of lower self-esteem for girls than boys.

Purpose of Study

Many researchers have come to view adolescence as having three sub-stages; early adolescence (age 10-13) middle adolescence, (age 14-17) and late adolescence (age 18-mid 20s). Early adolescence is considered the most difficult time due to rapid and profound physical, cognitive, and contextual changes that have an impact on self-esteem. This study looked at students who are mainly in the early adolescent period.

There were three major purposes of this study:

1. The first purpose was to establish if there were gender differences in self-esteem in black Zimbabweans.
2. The second was to examine the relationship between self-esteem and academic achievement.
3. The third was to examine if there were any differences in achievement between males and females.

Method

A sample of 180 Grade 6 primary school students in Mashonaland Central during the second term of 2001 was used in this study. The students were young adolescents, ($M=11.77$ yrs $S.D.=1.08$). All students were day-scholars. One class per school was selected randomly. There were 86 females and 94 males.

Measures

The LAWSEQ Self-Esteem Questionnaire (primary school version, in Appendix 1, (Lawrence, 1981), was group administered in the second term before mid-year examinations. This is a psychometric test consisting of 16 items measuring global self-esteem that is suitable for children aged seven to twelve years. Four of the items are distractors. The items are concerned with relationships and social encounters which are important parts of young people's lives and presumably therefore they influence their self-concept, especially girls, (Carlson, 1962). Its validity was demonstrated by Hart (1985) who found significant associations of LAWSEQ scores with the Coopersmith self-esteem scale, (Coopersmith 1967). It was developed from counseling children. The assessment of the construct has theoretical links with the "looking glass" theory of self, (Cooley, 1902).

Gurney (1988) regards the reported test-retest reliability of 0.64 in Hart's study as low. Regis (1996) reports an internal reliability of Cronbach 0.7 from item analysis on data from the Schools Education Unit. Mid-year test scores for Mathematics, English, and General Paper were obtained from the teachers. There are five subjects tested under General Paper, namely: Religious and Moral Education, History, Geography, Science, and Aids Education. Shona and practical subjects such as Computer Studies were left out of the study because either some of the schools did not offer the subjects or procedures of testing were different in the schools selected. It was therefore realised that this was a limitation of the study as school achievement was much broader than the curriculum sampled.

Data Analysis

A t-test was conducted in order to determine the differences in group means for self-esteem between males and females. The Levenes test for homogeneity of variance was used in the selection of the t-test. The relationship between self-esteem and achievement was assessed through



correlational analysis. The differences in test scores between the sexes was assessed through ANOVA.

Results

**Table 1
Correlations**

Variable	Maths (1)	English (2)	General Paper (3)
1. Self-esteem (M=14.26) SD=5.6	1	.228*	.100
3. Age (M=11.77) SD=1.06	-.50	-.229*	-.399*
5 sex	-.065	-.0145	-.001

*significance level P<.05

**Table 2
Levenes Test for Equality of Variance**

F	0.0007
P(F)	0.933

**Table 3
Gender Differences in Self-Esteem Summary of t-Test**

VARIABLE	NUMBER OF CASES	MEAN	SD	S.E. OF MEAN
MALE	94	15.0319	4.976	.513
FEMALE	86	12.9535	5.172	.558

VARIANCES	t VALUE	DF	2-TAIL SI G	CI for Diff 4
EQUAL	2.75	178	.007	0.585, 3.572

The student t-test developed by Gosset assumes that samples are drawn from a normally distributed population and equality of variances in the independent samples. Where the second assumption is not met Welch, s, t, (Welch, 1938) or a less robust nonparametric statistical test is selected. This assumption was tested through the Levenes test for homogeneity of variance. The test involves calculating absolute values of the deviation scores around the median of each group and then doing a one-way analysis of variance (ANOVA) on these. If the F ratio is significant we reject the homogeneity of variance assumption. The result of the Levenes test is shown in Table 2: (p F = 0.933). The variances in the two samples

are not significantly different. We therefore used the Gosset equal variance t-test. Table 4 summarises the results of the t-test which reveal that the differences in means for self-esteem for males and females are statistically significant, ($p < 0.01$).

The second hypothesis was that there was no relationship between self-esteem and academic achievement. Table 1 shows that there is a low but significant correlation between self-esteem and English Language (F0.228). It also shows that age is negatively correlated with all subjects although this is significant for English and General Paper.

The third hypothesis tested was that there were no differences in achievement between boys and girls. An ANOVA was done for each subject. The tables below show the descriptives followed by ANOVA tables.

Table 5
Descriptives: English

SEX	Mean	N	Std. Deviation
Males	55.2660	94	17.4351
Females	54.7442	86	18.7768
Total	55.0167	180	18.0395

Table 6
ANOVA Sex and English

			Sum of Squares	df	Mean Square	F	Sig.
ENGLISH * SEX	Between Groups	(Combined)	12.227	1	12.227	.037	.847
	Within Groups		58238.723	178	327.184		
	Total		58250.950	179			

Table 7
Maths

Sex	Mean	N	Std. Deviation
Male	55.1064	94	19.3165
Female	57.6512	86	19.8208
Total	56.3222	180	19.5459

Table 8
ANOVA Sex and Mathematics

		Sum of Squares	df	Mean Square
Between Groups	(Combined)	290.840	1	290.840
Within Groups		68094.471	178	382.553
Total		68385.311	179	

Table 9
General Paper

SEX	Mean	N	Std. Deviation
Male	60.9362	94	19.7309
Female	60.9070	86	21.5508
Total	60.9222	180	20.5623

Table 10
ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
GP2 * SEX	Between Groups	(Combined)	.038	1	.038	.000	.992
	Within Groups		75682.873	178	425.185		
	Total		75682.911	179			

The results in Tables 6, 8, and 10 show that there are differences in test scores between boys and girls but that these are not significant, ($pF > 0.05$).

Therefore the null hypothesis that there was no difference in scores between boys and girls could not be rejected.

Discussion

The major thrust of this study was to measure self-esteem in early adolescents, to establish if there are gender differences on self-esteem and school achievement. Other variables such as age were also hypothesised to influence the individual's academic achievement. Self-esteem as argued above is the evaluative component of the self-concept. While it may be easy to establish gender differences in global self-esteem, the relationship between self-esteem and behaviour has been found to be difficult to establish unless the former is assessed as a hierarchical and multi-dimensional construct, (Marsh, Byrne & Shavelson, 1992). As Anastasi and Urbina (1997) suggest this may, under certain conditions, yield inconsistent results or fail to reveal significant correlations with other variables. The differences in self-esteem between males and females may reflect cultural influences. Sex role expectations are certainly different for boys and girls in an African setting. In traditional Shona culture gender roles are differentiated such that males are accorded greater prestige. This feature seems to be a persistent feature of contemporary culture in poorly developed provinces such as Mashonaland Central in Zimbabwe. The instrument used might also be tapping masculine traits resulting in bias in favour of boys. Feminists such as Ellis (1998), Bem (1993), Gergen (1985) would argue that self-esteem instruments such as the LAWSEQ are not only culturally biased but also gendered. Watkins (1988) has also shown that in a non-Western setting not only are factors such as family, friends and school important in determining self-esteem but also variables such as food, money which are often ignored by western instruments. Other researchers have shown that components of self-esteem are gender-specific (Block & Robins 1993, Byrne & Shavelson, 1987, Marsh, 1989). The domains of the self-concept that relate to global self-esteem may be different for males and females (Knox, 1998). The results obtained in the current study, on gender, are nevertheless consistent with previous research findings cited above.

General low levels of self-esteem that lead to low performance in school

among girls as reported in these findings imply that teachers should prioritise the task of identifying the special needs of female pupils at school so that their school achievement is not affected negatively. Some researchers have suggested that the low levels of self-esteem in girls may be due to the fact that boys get preferential treatment in school from teachers (Orenstein, 1994). This might necessitate mounting of in-service courses for teachers to make them gender-sensitive.

Finally it is possible that sex role socialisation is another factor that might account for gender differences in self-esteem. Rothernberg (1995) suggests that parents' actions play a central role in girls' sex role socialisation. Intervention to improve girls' self-esteem needs to incorporate parents.

A second finding from this study was a significant relationship between self-esteem and scores in English Language but not with Mathematics and General Paper, (Table 1). The significance of the correlation between self-esteem and English Language has been highlighted in a study in Hong Kong by Lau et al. (1998). English, although a second language is the dominant language of instruction and assessment in the educational system. It plays a dominant role in the curriculum of education institutions of most former British colonies such as Hong Kong and Zimbabwe. The result is also consistent with results by Marsh (1990) on academic self-concepts. These can be established using a multidimensional academic questionnaire.

Furthermore, Table 1 shows that significant correlations exist between age and mid-year scores in Mathematics, English, and General Paper. The results are consistent with findings from several studies. Age seems to interact with other variables, resulting in lower achievement. Nyagura (1992) for example found a similar negative age differentiation effect showing that younger students perform better than older students in Mathematics in primary schools in Zimbabwe. There is therefore, a need to research into the exact relationship between these variables and achievement.

Recommendations for Future Research

The biggest limitation of all measures of self-esteem is their susceptibility to socially desirable responding. The self-esteem measure used is a self-report. Thus individuals prone to positive illusions may also positively inflate their self-reports (Shedler, Mayman & Mains 1993, Robbins & Beer 2001). But as Blascovich and Tomaka (1991) note however, "an individual who fails to endorse self-esteem scale items at least moderately is probably clinically depressed", suggesting that even the restricted range of self-esteem scores is useful among, and representative of non-depressed individuals. Future research could use multidimensional self-esteem measures other than self-reports.

The study could not include all subjects in the primary school curriculum such as Shona/Ndebele and Practical subjects. Furthermore, unavailability of standard tests for the mid-year examinations is also a limitation. Teacher made tests were the sources of the scores used in the study. Although the use of such tests may increase ecological validity of research on self-esteem and academic performance, there are likely to be variations in test quality and scoring procedures from one school to another. Further study is recommended to establish whether these findings can be replicated using standardised test scores in all primary school subjects. Finally the present study dealt with black Zimbabwean subjects and therefore results can only be generalised to that group. It is recommended that future research dealing with self-esteem and academic achievement could include other racial groups.

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