SELF DESCRIPTION AND ACADEMIC PERFORMANCE RELATION

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ABSTRACT

The study aimed to determine the relationship between the following self description factors: mathematics; verbal; academic; problem solving; physical ability; physical appearance; same sex peer relations; opposite sex peer relations; parent relations; spiritual values/religion; honesty/trustworthiness; emotional stability, and general esteem to academic performance in mathematics and physics of students enrolled in Bachelor of Science in Information Technology (BSIT) and Bachelor of Science in Applied Statistics (BSAS) courses.

The result of the research could be used to improve the performance of students in mathematics and physics. From the result, self description factor significantly affecting academic performance could be the basis/bases of the procedures/techniques to be used in teaching the said fields and increase the academic performance of students in mathematics and physics.

Results indicate that the overall self description was found to correlate with mathematical achievement of BSIT students although statistically not significantly correlated. For BSAS students, there were no significant relationship of the different self concept areas to mathematical achievement The overall self description of BSAS students also has no significant relationship with achievement in mathematics.

The finding also shows that the self description on mathematical ability, problem solving ability, and on same sex peer relations, were significantly correlated with the BSIT student's achievement in mathematics. The table also shows that the overall student's self description positively correlated with their achievement in mathematics.

INTRODUCTION

Self description, an ignored and neglected area in psychology and education for long, has now been recognised to play a vital role in personality development. It has been established by contemporary researches that the way an individual perceives himself goes to shape his behaviour patterns.

According to Festinger (1962), the ways we react to people, tasks, etc. are those which seem to us most consistent with our self image. Combs and Snygg (1949) and Rogers (1951) say people behave in a manner which is consistent with the way they view themselves. Self concept has been defined by several authors. William (1950) defines it to be all that a person is tempted to call by the name me or mine. Murphy (1947) holds it as the individual as known to the individual. According to Symonds (1951), self description is the way or manner in which the individual reacts to himself. He spells out four aspects of self: a.) how a person perceives himself; b.) what he thinks of himself; c.) how he values himself; and d.) how he attempts through various actions to enhance or defend himself.

Rogers (1951) views the self as a differentiated portion of the phenomenal field, consisting of a pattern of conscious perceptions and values of the "I" or "me". He spells out some of the properties of self: a) the self develops out of the organism's interaction with the environment; b) it may introject the values of other people and perceive them in a distorted fashion; c) it strives for consistency; d) the organism behaves in ways that are consistent with the self; e) experiences that are not consistent with the self-structure are perceived as threats; f) the self may change as a result of maturation and learning.

Sherif & Cantril (1947) use the term "ego" and define it as the constellation of attitudes of the type "what I think of myself, what I value, what is mine, and what I identify with." According to them, these attitudes, when activated, energise, direct and control the person's behaviour.

As self description seems to play a significant role in the growth and development of a person, a detailed knowledge about its nature and its relation to other important factors of personality will provide an objective and encouraging basis for the educators and counsellors to work on. Torrance (1954) vouches for the practical uses of knowledge of the self concept in counselling and guidance. With such educational and counselling ends in mind, numerous studies have been undertaken on the subject in different parts of the world. Indian studies on the subject have

dealt with: factors contributing to changes in self concept; implementation of self concept in occupational choices; differences in self concepts of achievers and nonachievers in school; etc. Hasenzadeh, *et al* (2004) found out a significant association of global self-concept/description and academic performance, as well as global self-concept scores differed significantly with the course of study.

Hamachek (1995) found out that academic achievement can be predicted by measuring academic self-concept and found a positive correlation between a student's academic self-concept and educational performance. Also, Marsh, Kong, & Hau (1999) found that academic self-concept and academic performance are reciprocal.

One could distinguish between adjustment within oneself (intrapersonal) and with others (interpersonal). Achievement refers to bringing an effort to the desired end or the end gained. Since adjustment and achievement are two cardinal dimensions of a person's behaviour and since self concept is acceptedly a significant influencer of behaviour, it was felt that a knowledge of the relationship between self concept and the other two variables would be very enriching and useful. Hence this study.

The result of the research could be used to improve the performance of students in mathematics and physics. From the result, self description factor significantly affecting academic performance could be the basis/bases of the procedures/techniques to be used in teaching the said fields and increase the academic performance of students in mathematics and physics.

OBJECTIVES OF THE STUDY

On the basis of the available knowledge on self description and its roles in behaviour, issues were raised with a view to testing them out empirically: Self description correlates with academic performance.

Specifically the study aimed to:

1. Determine the relationship between the following self description factors: mathematics; verbal; academic; problem solving; physical ability; physical appearance same sex peer relations; opposite sex peer relations; parent relations; spiritual values/religion; honesty/ trustworthiness; emotional stability, physical appearance and general esteem with academic performance in mathematics of students enrolled in BSIT and BSAS courses.

2. Determine the relationship between the following self description factors: mathematics; verbal; academic; problem solving; physical ability; physical appearance same sex peer relations; opposite sex peer relations; parent relations; spiritual values/religion; honesty/ trustworthiness; emotional stability and general esteem with academic performance in physics of BSIT students.

MATERIALS AND METHODS

Following a discussion with the guide, it was decided to carry out the investigation among the students of the Benguet State University Bachelor of Science in Applied Statistics and Bachelor of Science in Information Technology . The self description inventory measured self description in six areas: mathematics; verbal; academic; problem solving; physical ability; physical appearance same sex peer relations; opposite sex peer relations; parent relations; spiritual values/religion; honesty/ trustworthiness; emotional stability and esteem. The instrument used to measure self concepts of students was adopted from with a reliability coefficient of 0.73. The instrument applicable for the age group the researchers considered in the study, was used. There were 136 items in the questionnaire, of which 10 items each were used to measure the self concept areas except for the areas spiritual values/religion; honesty/trustworthiness; emotional stability and esteem where 12 items each were used. These instruments had been standardised in the relevant population. Final grades in Mathematics 11 and Physics 11 grades of the students were taken to indicate their academic performance level. Thus scores on self description and performance were obtained. Students considered in the study are first and second year students enrolled in either/both physics 11 and mathematics 11 during the first semester of the school year 2006-2007.

The Statistical Package for the Social Sciences was used in determining the relationship between self description to academic performance making use of Pearson Product correlation coefficient. A .05 level of significance is to be set to determine the statistical significance.

The following statements were used to categorize the items in the questionnaire:

Number	Item
Maths	
1	I find many mathematical problems interesting and challenging.
14*	I have hesitated to take courses that involve mathematics.

27	I have generally done better in mathematics courses than other courses.
40*	Mathematics makes me feel inadequate.
53	I am quite good at mathematics.
66*	I have trouble understanding anything that is based upon mathematics.
79	I have always done well in mathematics classes.
92*	I never do well on tests that require mathematical reasoning.
105	At school, my friends always came to me for help in mathematics.
118*	I have never been very excited about mathematics.
Verbal	
6*	I have trouble expressing myself when trying to write something.
19	I can write effectively.
32*	I have a poor vocabulary.
45	I am an avid reader.
58*	I do not do well on tests that require a lot of verbal reasoning ability.
71	Relative to most people, my verbal skills are quite good.
84*	I often have to read things several times before I understand them.
97	I am good at expressing myself.
110*	In school I had more trouble learning to read than most other students.
123	I have good reading comprehension.
Academic	
9	I enjoy doing work for most academic subjects.
22*	I hate studying for many academic subjects.
35	I like most academic subjects.
48*	I have trouble with most academic subjects.
61	I am good at most academic subjects.
74*	I am not particularly interested in most academic subjects.
87	I learn quickly in most academic subjects.
100*	I hate most academic subjects.
113	I get good marks in most academic subjects.
126*	I could never achieve academic honours, even if I worked harder.
Problem Solving	
10*	I am never able to think up answers to problems that haven't already been figured out.
23	I am good at combining ideas in ways that others have not tried.
36*	I wish I had more imagination and originality.
49	I enjoy working out new ways of solving problems.
62*	I am not much good at problem solving.
75	I have a lot of intellectual curiosity.

88* I am not very original in my ideas thoughts and actions.

101 I am an imaginative person.

114* I would have no interest in being an inventor.

127 I can often see better ways of doing routine tasks.

Physical Ability

13 I am a good athlete.

26* I am awkward and poorly coordinated at many sports and physical activities.

39 I have good endurance and stamina in sports and physical activities.

52* I hate sports and physical activities.

65 I have a high energy level in sports and physical activities.

78* I am not very good at any activities that require physical ability and coordination.

91 I like to exercise vigorously at sports and/or physical activities.

104* I am poor at most sports and physical activities.

117 I enjoy sports and physical activities.

130 I am a sedentary type who avoids strenuous activity.

Physical Appearance

11 I have a physically attractive body.

24* I am ugly.

37 I have a good body build.

50* There are lots of things about the way I look that I would like to change.

63 My body weight is about right (neither too fat nor too skinny).

76* I dislike the way I look.

89 I have nice facial features.

102* I wish that I were physically more attractive.

115* Most of my friends are better looking than I am.

128 I am good looking.

Same Sex Peer Relations

12* I have few friends of the same sex that I can really count on.

25 I am comfortable talking to members of the same sex.

38* I don't get along very well with other members of the same sex.

51 I make friends easily with members of the same sex.

64* Other members of the same sex find me boring.

77 I share lots of activities with members of the same sex.

90* Not many people of the same sex like me.

103 I am popular with other members of the same sex.

116* Most people have more friends of the same sex than I do.

129	I have lots of friends of the same sex.

Opposite Sex Peer Relations

5	I get a lot of attention from members of the opposite sex
18*	I find it difficult to meet members of the opposite sex whom I like
31	I have lots of friends of the opposite sex.
44*	Most of my friends are more comfortable with members of the opposite sex than I am.
57	I am comfortable talking to members of the opposite sex.
70*	I am quite shy with members of the opposite sex.
83	I make friends easily with members of the opposite sex.
96*	I have had lots of feelings of inadequacy about relating to members of the opposite sex.
109	I am comfortable being affectionate with members of the opposite sex.
122	I never seem to have much in common with members of the opposite sex.

Parent Relations

8*	I hardly ever saw things the same way as my parents when I was growing up.
21	I would like to bring up children of my own (if I have any) like my parents raised me.
34*	I still have many unresolved conflicts with my parents.
47*	My parents have usually been unhappy or disappointed with what I do and have done.
60	My values are similar to those of my parents.
73*	My parents have never had much respect for me.
86	My parents treated me fairly when I was young.
99*	It has often been difficult for me to talk to my parents.
112	My parents understand me.
125	I like my parents.

Spiritual Values/Religion

2*	My parents are not very spiritual/religious people.
15	I am a spiritual/religious person.
28*	Spiritual/religious beliefs have little to do with my life philosophy.
41	Spiritual/religious beliefs make my life better and make me a happier person.
54	My spiritual/religious beliefs provide the guidelines by which I conduct my life.
67	Continuous spiritual/religious growth is important to me.
80*	I rarely if ever spend time in spiritual meditation or religious prayer.
93	I am a better person as a consequence of my spiritual/religious beliefs.

106*	I am basically an atheist, and believe that there is no being higher than man.
119	I believe that there will be some form of continuation of my spirit or soul after my death.
133*	Spiritual/religious beliefs have little to do with the type of person I want to be.
136*	Few, if any of my friends are very spiritual or religious.

Honesty/ Trustworthiness

4*	I often tell small lies to avoid embarrassing situations.
17	People can always rely on me.
30*	Being honest is not particularly important to me.
43	I nearly always tell the truth.
56*	I sometimes take things that do not belong to me.
69	I never cheat.
82*	Being dishonest is often the lesser of two evils.
95	I am a very honest person.
108*	I would feel OK about cheating on a test as long as I did not get caught.
121	I value integrity above all other virtues.
132*	I am not a very reliable person.
134	I have never stolen anything of consequence.

Emotional Stability

7	I am usually pretty calm and relaxed.
20*	I worry a lot.
33	I am happy most of the time.
46*	I am anxious much of the time.
59	I hardly ever feel depressed.
72*	I tend to be highly-strung, tense, and restless.
85	I do not spend a lot of time worrying about things.
98*	I am often depressed.
111	I am inclined towards being an optimist.
124*	I tend to be a very nervous person.

General Esteem

3	Overall, I have a lot of respect for myself.
16*	Overall, I lack self-confidence.
29	Overall, I am pretty accepting of myself.
42*	Overall, I don`t have much respect for myself.
55	Overall, I have a lot of self-confidence.
68	Overall, I have a very good self-concept.

81* Overall, nothing that I do is very important.
94 Overall, I have pretty positive feeling about myself.
107* Overall, I have a very poor self-concept.
120* Overall, I have pretty negative feelings about myself.
131 Overall, I do lots of things that are important.
135* Overall, I am not very accepting of myself.

*negative self discriptions of student.

RESULTS AND DISCUSSION

Table 1 presents the relationship of student's self description and mathematical performance. Also in the table are the subself concepts correlated to BSAS and BSIT student's mathematical achievement. From the table it could be seen that self description on the different areas were related to performance but with no significant relationship.

Table 1. Relationship between self description and student's performance In Mathematics of BSIT students

Self Description Variable	Mathematics Performance of BSAS Students	Mathematics Performance of BSIT Students
A. Academic Variables		
Self description on Mathematical Ability	0.172 ns	0.149 ns
Self description on verbal ability	0.106 ns	0.093 ns
Self description on academics	-0.015 ns	0.051 ns
Self description on problem solving ability	0.034 ns	0.167 ns
B. Non-Academic Variables		
Self description on physical ability	-0.151 ns	0.121 ns
Self description on physical appearance	0.301 ns	-0.089 ns
Self description on same sex peer relations	0.232 ns	0.092 ns
Self description on opposite sex peer relations	-0.004 ns	0.145 ns
Self description on parents relations	-0.117 ns	0.129 ns
Self description on Spiritual values/religion	0.023 ns	-0.060 ns
Self description on honesty/trustworthy	-0.164 ns	0. 056 ns
Self description on emotional stability	-0.057 ns	0.162 ns
Self description on general esteem	-0.069 ns	0.169 ns
Overall self description	**0.100 ns**	**0.171 ns**

ns- not significant
*- significant at 0.05 level of significance.

Table 2 shows the correlation of Student's self description with performance in Physics. Data indicates that self description on mathematical ability, problem solving ability and same sex peer relations of BSIT students have significant relationship to physics performance. This is corroborated by Marsh' study (1992) on academic self concept/description. His findings showed relationship of school performance to specific self description.

Table 2. Relationship between self description and student's performance in physics of BSIT and BSAS students

Self Description Variable	Physics Performance of BSAS Students	Physics Performance of BSIT Students
A. Academic Variables		
Self description on Mathematical Ability	0.009 ns	0.207*
Self description on verbal ability	-0.012 ns	0.101 ns
Self description on academics	-0.079 ns	0.037 ns
Self description on problem solving ability	0.164 ns	0.164*
B. Non-Academic Variables		
Self description on physical ability	0.009 ns	0.073 ns
Self description on physical appearance	0.011 ns	-0.002 ns
Self description on same sex peer relations	0.041 ns	0.189*
Self description on opposite sex peer relations	0.120 ns	0.139 ns
Self description on parents relations	0.090 ns	0.116 ns
Self description on Spiritual values/religion	-0.118 ns	0.027 ns
Self description on honesty/trustworthy	0.076 ns	0.032 ns
Self description on emotional stability	0.132 ns	0.104 ns
Self description on general esteem	0.130 ns	0.109 ns
Overall self description	**0.093 ns**	**0.172***

ns- not significant

*- significant at 0.05 level of significance

The overall self description of BSIT students is significantly correlated to their performance in physics at 0.05 level of significance. Gage and Berliner (1992) stated that the research on the relationship between self-esteem/self-concept and school performance suggests that measures of general or even academic self-description are not significantly related to school achievement. It is at the level of very specific subjects that there is a relationship between self-description and academic performance. This is also supported in Hasenzadeh *et al.* (2004) on his research where they found out a significant association of self description

and academic performance.

For the BSAS students, there were no self concept areas having significant relationship with physics performance.

CONCLUSION

Based on the result of the study we therefore conclude that:

1. For BSIT and BSAS students, there is no significant relation of self description on the different areas of self concept.

2. The BSIT and BSAS self description on mathematical ability, problem solving ability, and same sex peer relations significantly correlated with the student's performance in mathematics. The overall self description of BSIT and BSAS students positively correlated with their self concept of BSAS and BSIT students on the six areas have relationship with physics performance but no significant relationship.

RECOMMENDATION

Based on the conclusion of the study, the following are recommended:

1. Student's self description on same sex peer relations should be considered by teachers to enhance performance of students in mathematics.

2. Teachers should determine mathematical abilities and problem solving ability of students to be able to make use of appropriate teaching strategy that would enhance student's performance in mathematics.

3. Student's self description should be conducted by an institution to guide teachers as well as students on the approach to be taken or applied in a mathematics class.

4. Student's self description should be enhanced specially on areas that significantly correlated to performance.

5. The self description of students should be improved with the guidance of qualified personnel in the academe to possibly attain a better performance.

6. Similar study should be conducted in other areas of performance and respondents.

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