



ACADEMIC SELF CONCEPT, SELF REGULATION AND ACADEMIC ACHIEVEMENT

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INTRODUCTION

During the elementary school years, children undergo important developmental changes. They become more logical and their attention gets more adaptable. This age span coincides with the time frame in which children develop an understanding of mental states and processes. In particular, young children acquire the ability to put together their conceptual knowledge of intention and false belief (Astington, 1991; Chandler & Hala, 1994). Piaget was of the opinion that the children progress starts with by being cognitively self-centred i.e., children cannot know that their own perspective may differ from those of others. Even after children who become aware of their perspective differences, they only gradually acquire skill with age in their various perspective and capabilities (Flavell, 1992; Shanz, 1983).

Researches has revealed that, the interacting factors in the children's life start in their early age and continue throughout the school years, and has envisaged self-regulation, as a crucial factor for children's school success. Poor self-regulation has been linked to high rates of expulsion and absenteeism in preschool classrooms (Gilliam & Shahar, 2006). Whereas with active self-regulation,



learners initiate himself/herself with or without the guidance of others to their own needs and explore resources and focus on appropriate learning strategies to formulate goals besides evaluating their learning outcomes. Self-regulation signifies the acquired intentional skills involved in controlling, directing, and planning one's cognitions, emotions, and behaviour (Schunk and Zimmerman, 1997). Experts from a broad range of perspectives has acknowledged the supremacy of successful self-regulation as a sign of adaptive growth and this largely depends upon that, how children perceives their level of competencies within an academic domain i.e., academic self concept of the children.

According to Bracken (2009), academic self-concept is 'how a person feels about himself or herself within a school or academic setting, or in relation to a student's academic progress' Bong and Skaalvik, (2003) define academic self-concept as, the degree of an individual's perception of his or her own proficiency in academic subject i.e., self evaluation. Self-evaluation is one of the critical stage in which students evaluate their own efficiency in relative to the specific learning tasks. It is believed that when students start evaluates their own learning, they become more self-regulated , thus Self-evaluation is crucial, in guiding the learning process on the part of the learner.

Literature abounds in studies on academic performance independently, based on a number of different variables. However, there are few studies that focus on the relation among academic self concept, self regulation and academic performance. Although studies on student's academic confidence and effort have give way to some interesting insights, yet little attention have been paid to the possible connection between academic confidence, academic effort and academic achievement. Only few studies have been done to highlight the differences. Thus, the present study was an attempt to investigate these variables in relation to each other and their influence on students' academic performance with the following objectives:



- To see the differences between secondary school students on their academic self concept, self regulation and academic performance.
- To see the correlation among academic self concept, self-regulation and academic performance.

DESIGN:

The 2x3x3 factorial design was used besides correlation analysis in the present study involving two levels of gender i.e., male and female, three levels of academic self concept (high, moderate and low) and three levels (high, moderate and low) of self regulation. The layout of the design is given below:

TOOLS:

The following tools were used in the present study to collect information from the participants:

1. In order to collect data, academic self-concept scale developed by Liu and Wang (2005), was used. The scale has two sub scales; (a) academic confidence, and (b) academic effort, each with 10 items to collect the students' academic self concept information. The items included both negatively and positively worded items to avoid the same answers from the students.
2. Self-regulation level of the participants was measured by the self-regulation sub-component of Motivated Strategies for Learning Strategies (MSLQ), developed by Pintrich et al. (1991). MSLQ is a comprehensive 81-item self-report instrument designed to measure motivational orientations and their use of different learning strategies, one of which is self-regulation.
3. The 10th grade board exam result of the students as per the school records was taken as the academic performance of the students.



RESULT AND DISCUSSION:

The correlation analysis clearly indicated the significant and positive correlation of the academic self concept with the self regulation ($r = .593^{**}$ $p < .01$) and academic performance ($r = .603^{**}$ $p < .01$) of the male participants. Similarly in case of female participants correlation values are significant with self regulation ($r = .685^{**}$ $p < .01$) and academic performance ($r = .629^{**}$ $p < .01$) of academic Concept (See Table I & II)

Table I
Correlation Table of Male Participants

| Variables | Academic Self Concept | Self Regulation | Academic Performance |
|------------------------------|-----------------------|-----------------|----------------------|
| Academic Self Concept | 1.00 | .593** | .603** |
| Self Regulation | | 1.00 | .617** |
| Academic performance | | | 1.00 |

** Significant at .01 level of Significance

Table II
Correlation Table of Female Participants

| Variables | Academic Self Concept | Self Regulation | Academic Performance |
|------------------------------|-----------------------|-----------------|----------------------|
| Academic Self Concept | 1.00 | .685** | .629** |
| Self Regulation | | 1.00 | .638** |
| Academic performance | | | 1.00 |

** Significant at .01 level of Significance

Further result also showed the significant and positive correlation of Self regulation with academic performance ($r = .617^{**}$ $p < .01$) of the male participants as well the female participants ($r =$



.638** $p < .01$) and clearly indicated that Higher the self regulation of the participants, higher the academic performance among them.

Hence the results of the present study clearly indicate the positive and significant relationship of academic self concept with the self regulation and academic performance and as well between self regulation and academic self concepts for both the male and female participants i.e., higher the academic self concept of the participants, higher the self regulation and higher the academic performance and vice versa.

Researchers have observed that students' effort is related to academic achievement. Studies of "engagement" have relied heavily on measures of effort, such as the completion of homework, attentiveness, and preparedness and the findings of such studies have indicated that students who are more engaged learn more in school (Johnson et al. 2001). Farkas et al. (1990) found that students' "work habits," as measured by teachers' reports of homework, class participation, effort, and organization, were positively related to students' mastery of courses and grade point averages (GPAs). Rosenbaum (2001) also found that students "preparedness" and absenteeism was related to their GPAs.

According to Sieler (1998), Self-confidence is a self-construct that enables one to have a positive view of himself or herself and it refers to a person's expectation of his or her ability to achieve a goal in a given situation and is a significant factor in ensuring a person's potential (Stevens, 2005). Further, a person with a high self-confidence has a positive view of his/her capability and which in turn create and sustain persistent in their actions - i.e., describes whether one is an optimist or a pessimist as it comes to school works i.e.- the child who perceives himself to be able, confident, adequate and a person of worth achieves excellence in this/her school performance, while on the



other hand, the child who perceives himself/herself as worthless incapable and less confident lands with poor attainment.

Earlier studies in case of Self regulation do support the result of the present study. Barnard Brak et al. (2010). They found associations between academic achievement levels and self-regulated learning profiles. Cheng (2011) investigated the relationship between students' self-regulation ability and their learning performance. The results showed that students' learning motivation, goal setting, action control and learning strategies played a significant role in their learning performance. Demirel and Turan (2010) carried out a study on the medical students' self-regulated learning skills and differences between self-regulated learning skills and achievement. Results of the study suggested that there were statistically significant differences between students' self-regulated learning skills and their achievement levels. Successful students were found to have more self-regulated learning skills in all stages of learning.

Further, to study the Main and Interactional effects of 2 levels of gender (male and female), three levels of Academic self concept (high, moderate and low) and three levels of Self regulation (high, moderate and low), 2x3x3 analysis of variance (ANOVA) was employed (See Table .IV).

Table IV
ANOVA Table of Academic Performance for 2 levels of Gender, 3 levels of Self regulation and 3 levels of academic self concept

| Source of variation | Sum of Squares | df | Mean Square | 'F' Ratio |
|-----------------------|----------------|----|-------------|-----------|
| Gender | 528.845 | 1 | 528.845 | 6.47** |
| Academic Self concept | 7406.608 | 2 | 3147.759 | 49.36** |



| | | | | |
|---|--------------|-----|---------|--------|
| Self Regulation (SR) | 378.661 | 2 | 344.886 | 3.90** |
| Gender x Academic self concept | 241.101 | 2 | 076.089 | 2.08 |
| Gender x Self Regulation (SR) | 253.378 | 2 | 182.189 | 2.15 |
| Academic self concept x Self Regulation (SR) | 1265.103 | 4 | 340.775 | 4.05** |
| Gender x academic self concept x Self Regulation (SR) | 1032.811 | 3 | 347.604 | 4.11** |
| Error variance | 28944.375 | 343 | 84.386 | |
| Total | 22528965.000 | 360 | | |

** Significant at .01 level of Significance.

The Table IV showed the main effect of academic self concept on the academic performance i.e., there is significant difference between the academic performance of the secondary students at the three levels of academic self concept as the F value came out to be 49.36 which is significant at .01 level of confidence for 2/343 df. Further to locate the significant difference on the academic performance of the secondary school students at the three levels of academic self concept, t-test was applied and the result is given in **Table V**

Table V
t-Test Table For Academic Performance at 3 Levels
of Academic Self Concept

| Levels of Academic Self Concept | Academic performance | | t-values |
|---------------------------------|----------------------|---------------------|----------|
| | Mean Value | Standard Deviations | |
| | | | |



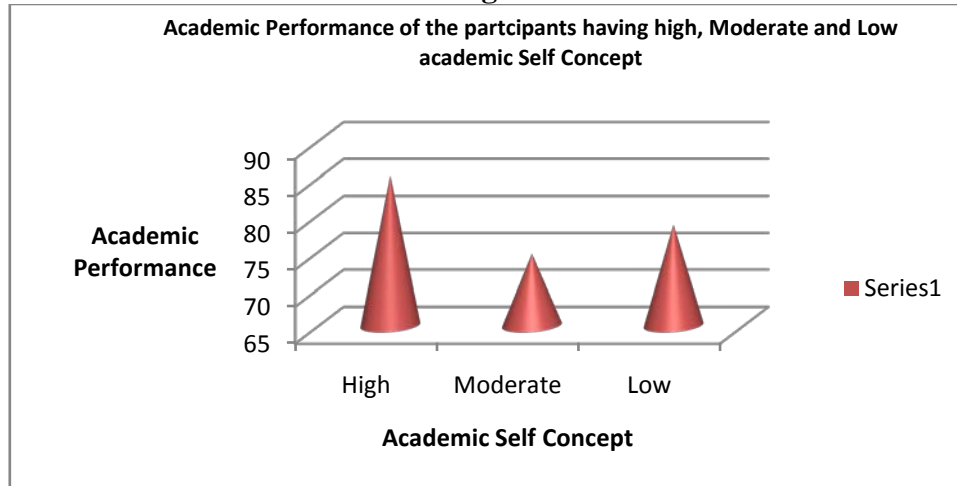
| | | | | |
|--------|-------------|-------|-------|--------|
| Levels | High (H) | 85.29 | 11.37 | 8.38** |
| | Low (L) | 74.66 | 7.98 | |
| Levels | Average | 78.62 | 10.42 | 5.57** |
| | Low (L) | 78.62 | 7.98 | |
| Levels | High (H) | 85.29 | 11.37 | 2.81** |
| | Average (A) | 74.66 | 10.42 | |

The result of t-test showed the significant difference between the learning outcomes of the Secondary students having high and low academic self concept, high and average academic self concept and having academic self concept. Hence the result of the present study clearly interpret that the Higher the academic self concept among the secondary school students, lower the academic performance among them and vice versa (See Figure I)

Whereas in case of the main effect of Self Regulation on the academic performance the F value in the Table IV came out to be 2.90 for 2/343 df which is significant at .01 level of confidence and thus indicates the significant difference on the academic performance of the secondary school students at the three levels of Self Regulation (High, Moderate and Low).

In order to locate the significant difference on the academic performance of the secondary students at the three levels of Self Regulation, t-test was applied and the result of the t-test are given in Table VI

Fig. I



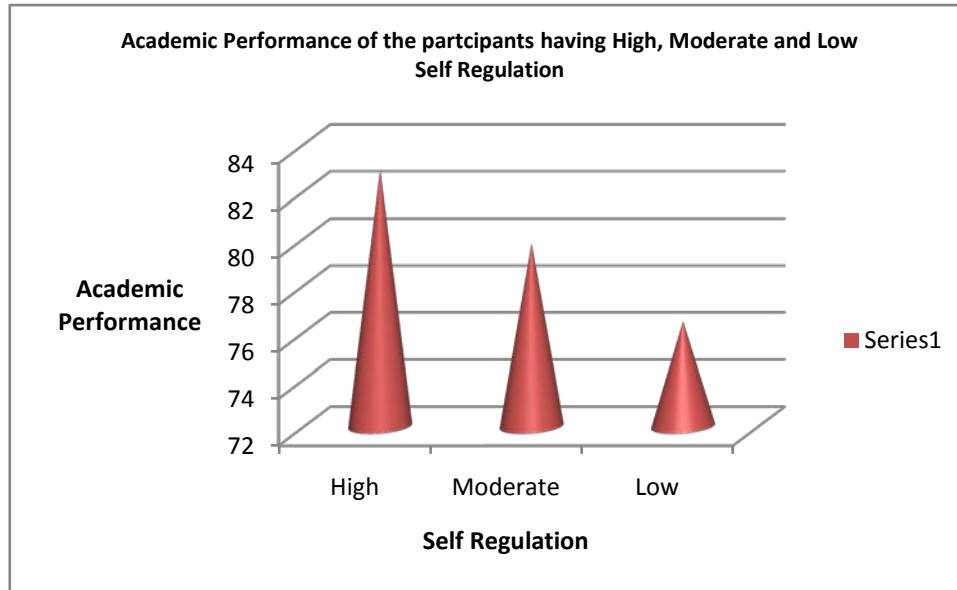
The result of t-test showed the significant difference on the academic performance of the secondary school students having high and low self regulation, high and average self regulation and as well between average and low self regulation. Thus, the result of the present

Table VI
t-Test Table for Learning Outcomes at 3 Levels of Self Regulations

| Levels of Self Regulation | | Learning Outcomes | | t-values |
|---------------------------|-------------|-------------------|---------------------|----------|
| | | Mean Value | Standard Deviations | |
| Levels | High (H) | 82.91 | 8.98 | 4.15** |
| | Low (L) | 76.45 | 12.24 | |
| Levels | Average (A) | 79.78 | 8.98 | 2.69* |
| | Low (L) | 76.45 | 10.37 | |
| Levels | High (H) | 79.78 | 12.24 | 2.81* |
| | Average (A) | 76.45 | 10.37 | |

** Significant at .01 level of confidence.

Fig. II



Study may be interpreted as, “higher the self regulation among the secondary school students, higher the learning outcomes among them and vice versa.

Besides Table IV also revealed the significant Interaction Effect of Academic self concept and Academic performance of the participants on the academic performance of secondary school Students (See Fig. III).

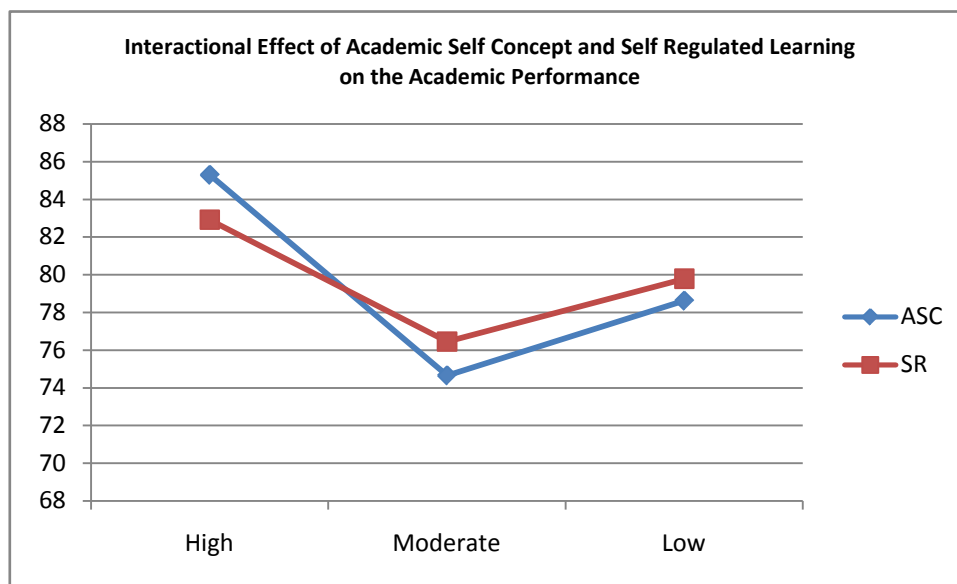
Hence, the result of the present study confirms the significant and positive relationship among academic self concept, self regulation and academic performance of the participants.

Pehlivan and Köseoğlu (2010) found a significant positive relationship between the students ‘achievement levels and academic self concepts. The present study has found that although self-concept is not one of the predictors of success at higher education level, it is related to academic achievement and high achieving students tend to have more academic self-confidence, more self-regulation, and view them more successful in all language skills.



Zimmerman and Schunk, (2001) found in their research that Student achievement has been influenced by the degree to which a student has effective use of self-regulation, or the ability of students to plan, monitor, and evaluate their own behavior, cognition and learning strategies (Mc Caslin & Hickey, 2001; Winne, 2001; Zimmerman, 1990, 1994). Many factors such as academic self concept self efficacy, cognitive strategies etc. of the students influence the use of motivation strategies and self-regulation to assist in their academic growth. One such factor is the student's perception of themselves as being intrinsically or extrinsically

Fig.III



Motivated them to get engage in learning activities within their educational environments that what is known as goal orientation (Barron & Harackiewicz, 2001; Elliot & Thrash, 2001). Mc Whaw and Abrami, (2001) and others in their research found that student's academic self concept, self-regulation and goal orientation are tightly interwoven constructs that strongly persuade the student learning and cognition (Pintrich,1989; Wolters,; Zimmerman & Kitsantas, 1997).



Hence, the results of the present study confirms the positive and significant relationship between academic self concept, self regulation and academic performance among the secondary school students and further verify the relationship through the differences observed on the academic performance of the secondary school students with respect to their levels of academic self concept and self regulation, indicating the crucial relationship between these, thus needs attention.

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