Academic Self-concept and Academic Performance among Pre-Service Teacher Trainees

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ABSTRACT

Academic self-concept is helpful for the students to evaluate their potentialities and bring out the students to be successful in their academic world. This study investigates the impact of self-concept on academic performance of pre-service teacher trainees. For data collection, a sample of 100 pre-service teachers consisting of 50 male and 50 female were selected randomly. Standardized Academic Self-Concept Scale prepared by Liu, Wang and Parkins (2005) was administered to collect data on self-concept. Scores secured by students in their academic examination considered as academic performance. To analyse the data, different descriptive statistical methods like mean, sd, correlation, t-ratio were employed. Analysis showed a negligible positive relationship between academic self-concept and academic performance. The study confirmed that self-concept has no impact on academic performance of pre-service teachers. In addition, findings also revealed no gender difference in academic self-concept among pre-service teacher trainees.

Keywords: Academic Self-Concept, Academic Performance, Pre-service Teacher Trainees

Students are the inseparable part of an educational system. From the beginning of formal education, significant attention has been given to their academic as well as overall aspect. Each and every student differs from one another on the grounds of their psycho-physical appearance, ability, attitude, intelligence, personality, achievement and other aspects. These individual differences should be considered in formal and informal educational settings, for ensuring effectiveness in teaching learning process. In academic world, students are self-determined for achieving their goals. It is also often said that students are self-motivated to achieve high academic success and performance. Researches in the field of academic performance reported that students' performance is influenced by many psychological constructs like self-motivation, self-efficacy, intelligence, anxiety, interest, locus of control etc. These psychological constructs have considerable relations with training programmes and academic performance of students. Many previous literatures expressed influential role of self-concept to the academic success of students. Self-concept is closely related to the term self-identity, self-perception. It can be defined as a set of beliefs about oneself. American psychologist, Carl Roger defined self as the aware part of an individuals' experience. He addressed that happiness, growth and development, adjustment of an individual depend upon the harmonious union between self-image and the organism. This harmonious relation between self-image and real life experience leads the individual to self-actualization which implies continuous development and realization of potentials.

Academic Self-Concept

School is considered as a miniature society for the students and it helps students to reflect their own self-worth and self-image. In school, self-concept of student is gradually develops through his own action. Academic self-concept refers to the extent in which self-knowledge related to academic prospectus is defined by the students. It can also be defined as self-evaluation of student to his academic abilities and skills. Every student possesses two distinct types of academic self-concept i.e. global domain academic self-concept and specific domain academic self-concept.
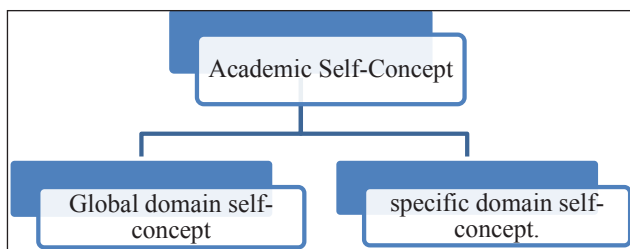

Fig. 1: Kinds of academic self-concept

Global domain academic self-concept defined as the belief of students in their general ability in school environment. But academic self-concept is multidimensional. Researcher argued that students' academic self-concept varies across prescribed subject matter. Therefore, specific academic self-concept refers to collective perception of students in specific academic prospectus like mathematical self-concept (when a student belief that he can perform well in solving mathematical problems), literacy self-concept (belief of student that he or she can read and write well in language art). Many researchers have also found reciprocal link between academic self-concept and academic achievement.

Literature review

Bandura (1997) highlighted in his social cognitive theory that students' academic performance is consistently related with his positive identity structures. Academic performance encompasses self-efficacy, self-concept, self-esteem, motivation. Previous studies described self-concept as collective perception, knowledge and evaluation based on own experience and interaction with environment, of individuals to their own capabilities. Academic self-concept refers to students' self-perception and evaluation to his academic abilities (Marsh, 2005).

In adolescent, students are self-motivated and self-directed. Self-directed learning is a process in which students can take initiatives with or without taking help from others and can define their objectives and strategies of learning (Knowles, 1975). Some earlier studies confirmed associative link between self-concept and self-directed learning among students. It was observed that Garrisons' self-directed learning model have high impact in improving students' academic self-concept (Shahrouri, 2016). With regard to the body of self-concept, researches conducted to establish relationship among scholastic achievement, self-concept, academic motivation and parenting style. Parent evaluates academic success of students with the marks scored in prescribed subject matter without knowing the effect of neglectful parenting style on the achievement of students. It was found that authoritative and permissive parenting style negatively associated with achievements of students. However, self-concept and academic motivation have a strong effect on achievement (Dagnew, 2018). Study habit is an important factor associated to academic world of students. It leads to better academic result and can bring higher academic performance. Significant correlation identified among students' study habit, test anxiety, achievement motivation, self-concept and their academic achievements. It indicates that student having high self-concept demonstrates higher performance in academic success than that of students having low self-concept (Chamundeswari *et al.* 2014; Emmanuel, Adom, Josephine and Solomon, 2014; Malini, 2014; Oommen, 2014; Kaur and Kumaran, 2016, Lone and Lone, 2016; Singh, 2015 & Narasimhan, 2018). However, no significant relation pointed out between academic self-concept and academic performance among girl students (Lone and Lone, 2016). In contrary to above findings, it was also reported that self-concept does not directly predicts educational achievement of students. It implies no relation between the two (Coetzee, 2011; Chiniwar, 2012; Laryea *et al.* 2014 & Narasimhan, 2018). Self-concept and achievement of students are the psychological constructs. Studies were conducted to analyse self-concept with some demographic and categorical variables such as gender, stream of study, academic self-appraisal. Findings confirmed that students' self-concept differ significantly in relation to their gender, stream of study, academic

self-appraisal. It was supported by previous studies conducted in this area by (Oommen, 2014; Singh, 2015; Kaur and Kumaran, 2016 & Narasimhan, 2018). Adolescent is the crucial stage of students, which can be considered as the period of gradual improvement in self-concept. Individuals' self-concept can be of different type i.e. physical, moral, social, temperamental, academic or educational, intellectual self-concept etc. It indicates difference between male and female students in relation to various aspects of self-concept. In order to verify difference in self-concept of students, categorical variables like gender, difference in locality, type of school, parental education and occupation were included. It was found no significant difference in self-concept among students with reference to their gender and locality (Chiniwar, 2012; Latha, 2012; Malini, 2014; Manjari and Pandey, 2017 & Murugan and Justin-Jebaraj, 2017) while significant difference observed among students' academic self-concept in relation to type of school students enrolled, parental education and occupation (Murugan and Justin-Jebaraj, 2017).

Significance of study

In undergraduate stage of education, students' life is full of stress and strain and they express it under different situation. They have to deal with various scholastic as well as socio-emotional problems. They are self-determined to carry out assigned task. Research work in the body of andragogy observed that adolescents are self-motivated and self-directed for their learning (Knowles, 1975). Analysis of earlier literature shows that most of researches with regard to the body of self-concept have not figured out the impact of self-concept on pupil-teachers' academic achievement. Considering the crucial stage of education among teacher trainees and lack of empirical researches in self-concept among pre-service teachers, the present study designed to examine the effect of academic self-concept and academic performance. The significant reason of studying academic self-concept is that, it is one of the most considerable psychological key construct to comprehend students academic behaviour.

Objectives of the study

1. To study the impact of academic self-concept on academic performance of pre-service teacher trainees.

2. To examine the relationship between academic self-concept and academic performance of pre-service teacher trainees.

3. To study the significant difference in academic self-concept of pre-service teacher trainees in relation to gender.

4. To study the significant difference in the dimensions of academic self-concept of pre-service teacher trainees.

Hypotheses of the study

1. There is no impact of academic self-concept on academic performance of pre-service teacher trainees.

2. There exists no relationship between academic self-concept and academic performance of pre-service teacher trainees.

3. There exists no gender difference in the academic self-concept of pre-service teacher trainees.

4. There exists no significant difference in the dimensions academic self-concept of pre-service teacher trainees.

Method and procedure

The study implemented quantitative research approach i.e. descriptive survey design to investigate the impact of self-concept on academic performance and to examine the relationship of self-concept with academic performance. Academic self-concept was considered as the independent variables. Demographic variable i.e., gender was also incorporated in the study. Academic performance was the dependent variable on which impact of independent variable i.e. academic self-concept was observed. For testing of hypotheses, academic self-concept scale administered and collected data analyzed by descriptive statistical methods.

Sample

Sample of the study comprised of 100 undergraduate students (50 male and 50 female) of Gangadhar Meher University, Sambalpur, who were enrolled in four year integrated B.Ed training programme. Random sampling was employed for the selection of sample.

Table 1: Mean difference in academic performance with respect to self-concept

Variable	Achievement of pre-service teacher trainees having high academic self-concept (N=45)		Achievement of pre-service teacher trainees having low academic self-concept (N=55)		df	t- value	Remarks
Academic Self-Concept	Mean	SD	Mean	SD	98	0.256	Not significant
	7.986	0.882	8.176	0.754			

Research instruments

Academic Self-Concept (ASC) scale developed by Liu, Wang and Parkins (2005) having conbach alpha value of 0.77, adopted by the researcher. The scale consisted of 19 items with four responses. All the items were based on two factors of academic self-concept i.e. Self-Confidence and Self-Efforts. By administering the scale, students' academic self-concept was rated from "Strongly Agree" to "Strongly Disagree". Data on academic performance was recorded by the students from their Academic GPA score card.

Analysis and interpretation

For data analysis and interpretation of result, descriptive statistical methods like Mean, SD, t-test, Person product moment correlation used in the study.

Objective 1

To study the impact of self-concept on academic performance, average score of self-concept was calculated and two separate groups are formed such as teacher trainees having high self-concept and teacher trainees having low self-concept. The variation in academic performance of both groups was obtained by using t-test.

The table 1 incorporates the mean variation, sd, df, t value of academic performance of teacher trainees having high and low self-concept. The obtained t-value (0.0256) is less than the table value (1.99 and 2.63) at both 0.05 and 0.01 level with the df 98. It expresses that there is no considerable difference in the academic performance of both groups. There exists no impact of academic procrastination on academic performance of pre-service teacher trainees, although the study observed a weak positive association between academic self-concept and academic performance.

Objective 2

Pearson product moment coefficient of correlation employed in order to investigate the relationship between academic self-concept and academic performance among pre-service teacher trainees.

Table 2: Correlation between academic self-concept and academic performance

Variables	N	r	Remarks
Academic Self-Concept	100	0.0929	Weak positive correlation
Academic Performance	100		

It is inferred from the above table that academic self-concept has a weak positive relationship (r=0.0929) with academic performance. Therefore, the null hypothesis of the study i.e. there is no relationship between academic self-concept and academic achievement of pre-service teacher trainees is rejected. This analysis confirms that students with high academic self-concept show higher performance in their academic performance.

Objective 3

To see the significant gender variation in the self-concept among pre-service teacher trainees, mean score, standard deviation and t-test computed.

Table 3: Gender-wise variation in academic self-concept

Variable	Male (N=50)		Female (N=50)		df	t-value	Remarks
Academic Self-Concept	**Mean**	**SD**	**Mean**	**SD**	98	0.548	Not significant
	58	5.97	59.7	5.65			

(At 0.01 and 0.05 level the table value of 't' is 2.63 and 1.99).

The higher table depicts that, the computed mean difference between male and female pupil-teacher was 0.548, which less than the table value at both 0.01 and 0.05 levels of significance with the df 98. It is inferred from the higher table that there is no

considerable gender variation in academic self-concept. So, the null hypothesis i.e. there exists no gender difference in the academic self-concept of pre-service teacher trainees is accepted.

Objective 4

Academic Self-Confidence and Academic Self-Efforts are the two dimensions of academic self-concept. It was hypothesized that there is no difference between academic self-confidence and academic self-effort among pre-service teacher trainees. To confirm the hypothesis, mean scores of self-confidence and self-effort analyzed with t-test.
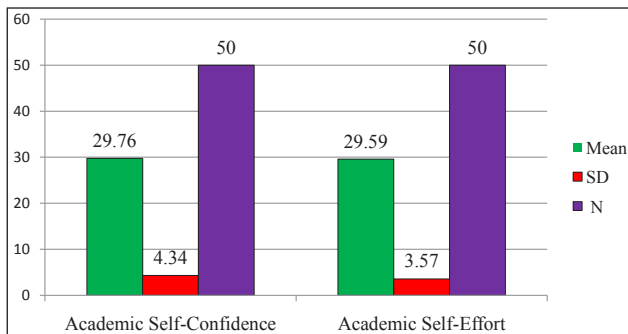

Fig. 2: Variance in Academic Self-Confidence and Academic Self-Efforts

The above figures reveal the mean difference between self-confidence and self-effort. It was found that the obtained t value i.e. 0.762 is not significant at both 0.01 and 0.05 level (2.63 and 1.99) with df of 98. From the above figure it is clear that pre-service teacher trainees do not differ significantly in relation to the dimensions of academic self-concept. So, the null hypothesis i.e. there exists no significant difference in the dimensions academic self-concept of pre-service teacher trainees is accepted.

Major findings

❑ The study found no impact of academic self-concept on academic performance among undergraduate pre-service teacher trainees.

❑ A weak positive correlation ($r = 0.0929$) observed between academic self-concept on academic performance.

❑ Result of the study indicates no variation in the academic self-concept of undergraduate pre-service teacher trainees in relation to gender.

❑ The study has established that no significant difference exits in the dimensions of academic

self-concept among undergraduate pre-service teacher trainees.

Discussion and Implication of result

Findings of the study confirmed a correlation between self-concept and scholastic performance. Knowledge of academic self-efficacy may help the teacher educator, administrator and other stake holders to design their educational programs concerning to teaching and academic capabilities of pupil-teacher. In academic setting also students develops positive self-concept. When a teacher assigns rank order to students through group comparison, it shapes academic self-concept and self-esteem in the student. By analyzing the relationship between self-concept and academic performance, emphasis should be given to academic self-confidence, self-beliefs and self-efforts which will contribute to high academic success among student. Study also reported no gender difference in self-concept among male and female undergraduate teacher trainees. This finding strengthened the outcome of previous researches in concerned field (Chiniwar, 2012; Latha, 2012; Malini, 2014; Manjari and Pandey, 2017 & Murugan and Justin-Jebaraj, 2017). It can be inferred from the finding that researches need to be conducted to validate the result i.e. there is no gender difference between male and female, in self-concept due to instruction by same teachers, same method of teaching having similar academic facilities.

However, a slight difference observed in the mean score of both groups. Female teacher trainees have higher self-concept as compared to male teacher trainees. Based on this result, the present study justifies the importance of improving academic self-concept among male pupil-teacher, which leads to perception of their own strengths and weaknesses, capacities. To improve self-concept, teachers have to provide feedback and encouragement that will focus on specific skills and abilities. This study also demonstrates no impact of self-concept on achievement of students and this finding is consistent with the earlier research works carried out for evaluating the impact of self-concept on academic performance (Baumeister *et al.* 2003, Coetzee, 2011; Chiniwar, 2012; Laryea *et al.* 2014 & Narasimhan, 2018). Some research literature stresses that high academic self-concept do not imply

excellent achievement in students. However, it is empirically investigated that students who evaluates their academic skills and capabilities in positive way, tent to be involved in more goal-oriented behaviour.

CONCLUSION

Considering the foregoing findings and discussion, the study concludes that role self-concept is not confined only to the academic world of students. Looking into the reciprocal influence and relationship between academic performance and self-concept, teacher and parents should address potential mediators for the students. Academic self-concept makes the students understand that academic failure is the result of effort rather than skills and abilities they have. It may help the students to exhibits greater persistence to deal with their failure rather than developing negative attitude of helplessness. Teachers must have knowledge about the strategies related to building positive academic self-concept in students.

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