A STUDY OF THE ACADEMIC SELF-CONCEPT OF HIGH SCHOOL STUDENTS AND ITS EFFECTS ON THEIR ACHIEVEMENT

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Abstract

The purpose of this research was to determine the academic self-concept of high school students and its effects on their achievement. Quantitative research design was chosen for this study. In this study, (600) Grade Ten students from five Basic Education High Schools in Urban and five Basic Education High Schools in Rural were involved. A questionnaire based on the dimensions of Reynolds' Academic Self-concept Scale was used to find the academic self-concept in English, Mathematics and Physics. Independent Samples *t*-test was used to investigate whether there were significant differences in the academic self-concept and achievement of high school students in terms of gender and location of school. The results revealed that there were significant differences in the academic self-concept and achievement of high school students in terms of gender. And there were significant differences in the academic self-concept of high school students in Physics but not in English and Mathematics in terms of location. Then, there were significant differences in the achievement of high school students in terms of location. Pearson Product Moment Correlation was used to investigate the relationship between the academic self-concept of high school students and their corresponding achievement. The result revealed that there was a significant correlation between the academic self-concept and achievement. In addition simple regression was used to find out the effect of the academic self-concept of high school students on their achievement. The result of simple regression ($R^2 = .11$) revealed that there was a positive small effect of the academic self-concept of high school students on their achievement. Although there was a small effect, the academic self-concept was one of the important factors for increasing the achievement of students. Therefore, teachers and parents need to know the ways of improving the academic self-concept and should create an environment that allow for successive approximations leading toward the end goal.
Keywords: academic self-concept, achievement, effect

Introduction

The future of a nation depends largely on the quality of the citizens. If the citizens of a country are educated, they can easily grow up the national growth and development. Therefore, there must be cultivated educated and successful people for the national growth and development. To become the successful and educated persons, the teachers and parents must be cultivated the students to become all round developed persons since they were in high schools. Academic achievement plays a vital role in all round development. Academic achievement is important because it directly decides the positive outcomes of the students after graduating. Therefore, it is necessary to find out the factors increasing the academic achievement of students.

Statement of the Problem

Students' academic achievement plays a significant role in producing the best quality graduates who will become grate leader and manpower for the country thus responsible for the country's economic and social development. Academic self-concept, broadly defined, can be thought of as a student's self-perception of academic ability formed through individual experiences and interactions with the environment (Valentine, DuBois& Cooper, 2004).

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Academic self-concept, on the other hand, refers to mental representations of one's abilities within school or academic settings, or in relation to one's academic progress.

Many researchers have conducted research and offered explanations as to increase the academic performance and achievement of students. Several factors impact the educational achievement of students, including school curriculum, student learning style, and teacher expectations (Kunjufu, 1989). Therefore, it is necessary to study the level of academic self-concept of Myanmar high school students in terms of gender and location of school and whether there is a relationship between academic self-concept and achievement of students. And it is needed to study whether the academic self-concept of students effect on their achievement and to what extent that effect on their achievement.

Purposes of the Study

The main purpose of the research was to study the academic self-concept of high school students and its effects on their achievement.

The specific objectives of the research were:

1. To explore the academic self-concept and achievement of high school students in English, Mathematics and Physics
2. To compare the academic self-concept and achievement of high school students in terms of gender and location of school
3. To find out the relationship between the academic self-concept of high school students and their corresponding achievement
4. To investigate the effects of academic self-concept of high school students on their corresponding achievement
5. To give suggestions for improving students' academic self-concept and achievement.

Research Questions

1. To what extent do high school students have academic self-concept and achievement in English, Mathematics and Physics?
2. Is there any difference in the academic self-concept and achievement of high school students in terms of gender and location of school?
3. Is there any relationship between the academic self-concept of high school students and their corresponding achievement?
4. Is there any effect of the academic self-concept of high school students on their corresponding achievement?

Significance of the Study

This study will provide the classroom teacher and educators with knowledge of the relationship between the academic self-concept and achievement of high school students. Knowing the correlation between academic self-concept and achievement, they will try ways to improving students' academic self-concept and appropriate teaching methods suitable for their students.

And this study will provide the effects of academic self-concept on achievement of high school students and the findings will be of value to parents, teachers, educators and responsible

persons in identifying possible causes of poor academic achievement. Supporting a student's academic self-concept is important to improve academic achievement because the beliefs and feeling that students have are the key components of academic success.

Definition of Key Terms

Academic self-concept	:	Academic self-concept is defined as the degree of an individual's perception of his or her own proficiency in academic subjects (Bong &Skaalvik, 2003).
Academic Achievement	:	Academic achievement may be defined as the performance of the students in the subjects they study in the school (Pandey, 2008).
Effect	:	A change that is caused by an event, action etc.

Scope

This research is geographically restricted to Kalay Township, Sagaing Region. Participants were chosen from Grade Ten Students from the five Basic Education High Schools in urban and five Basic Education High Schools in rural. This research mainly focused on the dimensions of academic self-concept as academic confidence, academic interest, academic effort, and self-evaluation. In this research, academic self-concept was identified with self-concept in Mathematics, English and Physics.

Review of Related Literature

Theoretical Background of the Study

According to Rogers (as cited in Mangal, 2010),every individual possesses the desire to become a perfect human by means of self-control and with his own autonomy. In this respect, he is also endowed with intrinsic motivation to allow him to move towards the direction of achieving self-perfectness and excellence. Furthers, experiences and knowledge acquired from the environment will enable him to form his own self- concept, whether positive or negative, depends on the characteristics of elements which affect the environment. However, every behavior which has been exhibited by an individual usually reflects his self-concept as well as his own beliefs. An individual's personal experience is unique and distinctive, as well as different from other individuals. Such experience is also, to a large extent, affected by the environment which he interacts.

Valentine, DuBois and Cooper (2004) described a positive academic self-concept should lead to gains in academic achievement. Specifically, students with positive views of their academic abilities are likely to engage in more achievement-related behaviors, which might include completing homework, studying for tests, and participating in class activities. Guilford (1966, as cited in Shavelson, Hubner& Stanton, 1976) stated four aspects of self-concepts: (1) how a person perceives himself, (2) what he thinks of himself, (3) how he values himself and (4) how he attempts through various actions to enhance or defend himself.

Academic confidence is the student's belief about performing a task at a particular level in order to attain a specific academic goal. It reflects a strong belief or sure expectation of success in an academic field. Generally, students perform those task and activities in which they

feel competent. And then, they who perceive himself confident has a high level of academic achievement (Shaukat& Bashir, 2004).

However, academic interest is also a valence linked to a specific topic, task, or activity which as a driving force. Schiefele and Csikszentmibalys (1994) described that there was a relationship between academic interest and academis achievement (as cited in Corbiere, Fraccaroli & Mbekou, 2006).

Besides, student's effort is strongly related to students learning. The results achieved by the learner through a process of learning depend heavily upon his basic potential. A learner's readiness and power to learn is a great deciding factor of his results in learning. Certainly, if he has a will to learn a thing, then automatically, he will himself find ways for effective learning. The effort and results, which provid a success experience to an individual (Mangal, 2010).

Self-evaluation is also the principal method of assessing progress or success. Self-evaluation is one of the characteristics of Roger's experiential learning. The learner himself is interested in evaluating the results and outcomes of such learning by applying it to the realization of learning objectives (Mangal, 2010).

The Model Used in the Study

The theoretical underpinning of the notion self-concept as used in this study is based on the hierarchical model of Shavelson, Hubner and Stanton (1976) who were the first researchers to create an empirically testable hierarchical self-concept model (Byrne, 1996). The model has been expanded and changed, although the basic structure has stayed similar. The hierarchical model, as represented in Figure 1 can be described as a pyramid with a global self-concept at the apex. Intermediate level self-concepts, such as academic self-concept and social self-concept, follow beneath the apex. Beneath each of the intermediate level self-concepts, further specific self-concepts are found, such as subject-specific academic self-concepts like mathematics and first language self-concepts. Although the components of hierarchical models can differ, the pyramidal description applies for all hierarchical models. The self-concepts are found increasingly differentiated from the top to the bottom in the model.
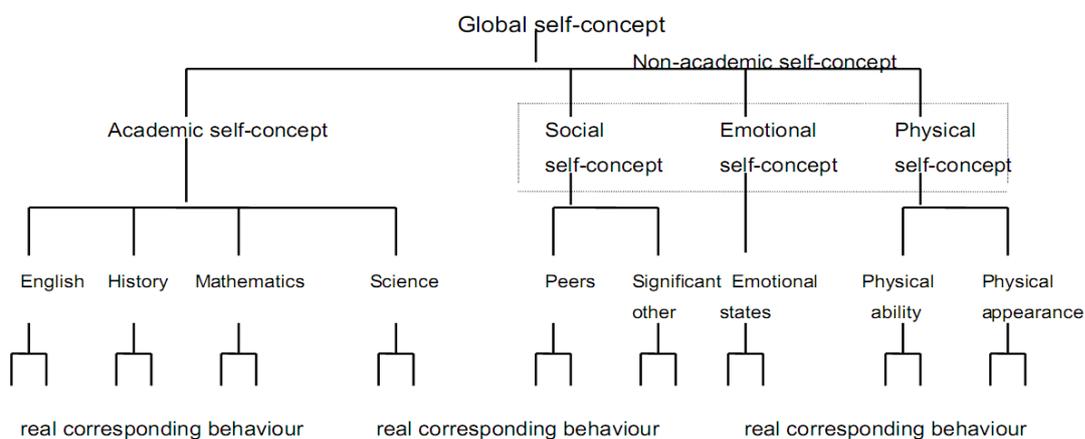
Figure1 The hierarchical model (Shavelson, Hubner& Stanton, 1976).

Academic Self-concept and Academic Achievement

According to Marsh (2003), the major research question in the study of academic self-concept is: whether academic self-concept causes academic achievement or academic achievement causes academic self-concept. In the voluminous literature on self-concept, there are three major theoretical models regarding the causal ordering between academic self-concept and academic achievement: the self-enhancement model, the skill development model, and the reciprocal effects model.

The self-enhancement model posits that the primary causal path is from academic self-concept to academic achievement. It maintains that as improvement in self-concept will lead to improve academic performance and that achievement does not influence self-concept. In the skill development model, academic self-concept is a consequence of prior achievement. The skill development model maintains that past achievement whether successful or unsuccessful influences the formation of self-concept but self-concept does not influence achievement. The reciprocal effects model assumes self-beliefs predicts increase in academic achievement (i.e. later achievement, after controlling for prior achievement), and, conversely, higher levels of achievement predict improvements in self-beliefs.

Many researchers have suggested that the causal direction of academic self-concept and achievement vary with age. The academic self-concept of younger students is more likely to be influenced by school performance. As they enter higher grades, academic self-concept and achievement are more likely to influence each other. Although most researchers concur that the relation between the two variables is reciprocal, there is still a lack of a conclusive answer on when the effect is stronger in one direction or the other or whether the effects one variable on the other is stronger (Liu, 2009). Based on the above literature, this study was conducted.

Research Method

A quantitative research design was chosen for this study. The sample of this study was (600) Grade Ten students from ten Basic Education High Schools in Kalay Township. The participants were selected by using a simple random sampling method.A questionnaire was developed on the basis of the dimensions of Academic Self-concept Scale of Reynolds (1988) to explore the academic self-concept of students in English, Mathematics and Physics. A questionnaire was comprised of four dimensions as academic confidence, academic interest, academic effort and self-evaluation. There were 5 items for each dimension. Therefore, there were 60 items for three subjects. There were five possible responses to each question to indicate the responses of "Strongly Disagree" (1), "Disagree" (2), "Undecided" (3), "Agree" (4), "Strongly Agree" (5). After preparing the instrument, validity was determined by the expert judgments. And then, pilot study was conducted with (60) Grade Ten students in BEHS (Branch) No. (23) BEMS, Pyi Gyi Tagon Township, Mandalay Region. And achievement in each subject was taken from October monthly test scores by teacher made tests. Finally, the obtained data were analyzed. The researcher computed descriptive statistics such as mean and standard deviation for each subscale to investigate academic self-concept and achievement. After that Independent Samples *t*-test was computed to find out the differences in the academic self-concept and achievement of students in terms of gender and location of school. Then, the Pearson Product Moment Correlation was computed to find out the relationship between the academic self-concept and achievement. Finally, simple regression was computed to investigate the effect of academic self-concept on the achievement.

Research Findings

Findings of the Academic Self-concept of High School Students in Each Subject

In order to examine the academic self-concept of high school students in English, Mathematics and Physics, a statistical descriptive procedure was used. The mean and standard deviation for students' academic self-concept in each subject was shown in Table 1.

Table 1 Means and Standard Deviations of Students' Academic Self-concept in Each Subject

Variable	*N*	*M*	*SD*	Mini	Max
English Self-concept	600	70.38	10.647	30	100
Mathematics Self-concept	600	72.89	12.041	36	100
Physics Self-concept	600	70.68	11.941	32	100

The mean of Mathematics self-concept was highest and the mean of English self-concept was lowest. This result revealed that students had the highest self-concept in Mathematics. Generally, the means of academic self-concept of high school students in Kalay Township were greater than the theoretical mean. Therefore, it was concluded that high school students in Kalay Township were likely to have good academic self-concept.

Findings of the Achievement of High School Students in Each Subject

In order to examine the academic achievement of high school students in English, Mathematics and Physics, a statistical descriptive procedure was used. The means and standard deviations for students' achievement in each subject were shown in Table 2.

Table 2Means and Standard Deviations of Students' Achievement in Each Subject

Variable	*N*	*M*	*SD*	Mini	Max
English Achievement	600	15.51	5.735	0	25
Mathematics Achievement	600	17.70	5.501	0	25
Physics Achievement	600	17.56	6.409	0	25

According to Table 2, mathematics achievement had the highest mean and the lowest standard deviation. Therefore, it was concluded that high school students in Kalay Township were likely to have better achievement in Mathematics than English and Physics.

Findings of the Academic Self-concept of High School Students in terms of Dimension

To explore the differences in students' English self-concept, Mathematics self-concept and Physics self-concept in each dimension, descriptive statistics was used. In Table 3, the means and standard deviations for students' Academic self-concept in each dimension were shown.

Table 3   Means and Standard Deviations of Students' Academic Self-concept in terms of Dimension

Subject	Dimension	N	M	SD	Mini	Max
English	Academic Confidence	600	16.63	3.474	5	25
	Academic Interest	600	18.51	2.980	10	25
	Academic Effort	600	16.56	3.379	7	25
	Self-evaluation	600	18.68	3.085	7	25
Mathematics	Academic Confidence	600	16.93	3.943	6	25
	Academic Interest	600	18.70	3.459	7	25
	Academic Effort	600	18.31	3.528	5	25
	Self-evaluation	600	18.96	3.228	5	25
Physics	Academic Confidence	600	16.94	4.047	5	25
	Academic Interest	600	17.87	3.175	10	25
	Academic Effort	600	17.34	3.492	5	25
	Self-evaluation	600	18.53	3.264	5	25

According to the means of students' academic self-concept in terms of dimension, it was found that academic effort in English, academic confidence in Mathematics and Physics had the lowest mean and self-evaluation in three subjects had the highest mean. Therefore, it was concluded that high school students in Kalay Township were good at self-evaluation in each subject and weak in effort in English, weak in confidence in Mathematics and Physics.

Findings of the Academic Self-concept of High School Students in terms of Gender

Independent samples *t* test was used to compare the differences in the academic self-concept of students in terms of gender. The results of *t* test which showed the comparison of means between male and female students were shown in Table 4.

Table 4   Means, Standard Deviations and t Value of Students' Academic Self-concept in terms of Gender

Variable	Gender	N	M	SD	MD	t	df	p
English Self-concept	Male	240	67.18	10.240	-5.336	-6.199	598	.000***
	Female	360	72.51	10.388				
Mathematics Self-concept	Male	240	70.62	12.406	-3.787	-3.817	598	.000***
	Female	360	74.41	11.563				
Physics Self-concept	Male	240	68.18	12.122	-4.164	-4.243	598	.000***
	Female	360	72.35	11.538				

Note: ***p<.001*

Table 4 showed that there were significant differences in academic self-concept between male and female students among the selected schools at .001 level. This means that female students had higher academic self-concept than male students in English, Mathematics and Physics in Kalay Township.

Findings of the Academic Self-concept of High School Students in terms of Location

Independent samples *t* test was used to compare the differences in the academic self-concept of students in terms of location. The results of *t* test which showed the comparison of means between urban and rural students were shown in Table 5.

Table 5   Means, Standard Deviations and t Value of Students' Academic Self-concept in terms of Location

Variable	Location	N	M	SD	MD	t	df	p
English Self-concept	Urban	300	70.45	10.180	.153	.176	598	.860
	Rural	300	70.30	11.111				
Mathematics Self-concept	Urban	300	73.04	11.625	.293	.298	598	.766
	Rural	300	72.75	12.461				
Physics Self-concept	Urban	300	69.71	11.899	-1.950	-2.005	598	.045*
	Rural	300	71.66	11.923				

Note: *$p<.05$

Table 5 showed that there were no significant differences in English self-concept and Mathematics self-concept but Physics self-concept had significant difference between urban and rural schools at .05 level. This means that urban and rural students had nearly the same academic self-concept in English and Mathematics, and rural students had better self-concept than urban students in Physics.

Findings of the Achievement of High School Students in terms of Gender

Independent samples *t* test was used to compare the differences in the achievement of students in terms of gender. The results of *t* test which showed the comparison of means between male and female students were shown in Table 6.

Table 6   Means, Standard Deviations and t Value of Students' Achievement in terms of Gender

Variable	Gender	N	M	SD	MD	t	df	p
English Achievement	Male	240	14.38	5.672	-1.892	-4.007	598	.000***
	Female	360	16.27	5.660				
Mathematics Achievement	Male	240	16.54	6.335	-1.936	-3.663	598	.000***
	Female	360	18.48	6.349				
Physics Achievement	Male	240	16.65	5.438	-1.519	-3.343	598	.001**
	Female	360	18.17	5.466				

Note: **$p<.01$, ***$p<.001$

Table 6 showed that there were significant differences in English achievement and Mathematics achievement at .001 level and Physics achievement at .01 level between male and female students. This means that female students had better achievement than male students in all three subjects in Kalay Township.

Findings of the Achievement of High School Students in terms of Location

Independent samples *t* test was used to compare the differences in the achievement of students in terms of location. The results of *t* test which showed the comparison of means between urban and rural students were shown in Table 7.

Table 7   Means, Standard Deviations and t Value of Students' Achievement in terms of Location

Variable	Location	*N*	*M*	*SD*	*MD*	*t*	*df*	*p*
English Achievement	Urban	300	16.89	4.680	2.753	6.052	598	.000***
	Rural	300	14.13	6.340				
Mathematics Achievement	Urban	300	20.27	5.143	5.140	10.72	598	.000***
	Rural	300	15.13	6.525				
Physics Achievement	Urban	300	18.57	5.319	2.017	4.564	598	.000***
	Rural	300	16.55	5.503				

Note: ****p<.001*

Table 7 showed that there were significant differences in English achievement, Mathematics achievement and Physics achievement between urban and rural students at .001 level. In detail, urban students had higher academic achievement than rural students in all three subjects in Kalay Township.

Findings of the Relationship between Academic Self-concept and their Corresponding Achievement

To investigate the relationship between academic self-concept and their corresponding achievement, Pearson product-moment correlation coefficient between two variables was calculated. The result of correlation between academic self-concept and their corresponding achievement was mentioned as follow in Table 8.

Table 8 Correlation between Academic Self-concept and their Corresponding Achievement

Variable		EA	MA	PA	A
ESC	Pearson Correlation	.392**			
	Sig (2-tailed)	.000			
MSC	Pearson Correlation		.292**		
	Sig (2-tailed)		.000		
PSC	Pearson Correlation			.203**	
	Sig (2-tailed)			.000	
ASC	Pearson Correlation				.334**
	Sig (2-tailed)				.000

** Correlation is significant at the .01 level (2- tailed).   N=600
Note: ESC = English Self-concept   EA = English Achievement
            MSC = Mathematics Self-concept   MA = Mathematics Achievement
            PSC = Physics Self-concept   PA = Physics Achievement
            ASC = Academic Self-concept   A = Achievement

There was a significant correlation between English self-concept and English achievement, Mathematics self-concept and Mathematics achievement, Physics self-concept and Physics achievement, and total academic self-concept and achievement at the .01level (r =.334). The result shows that the direction of correlation was positive. This means that if the academic self-concept is good, the achievement of students will be high or if the academic self-concept is bad, the achievement of students will be low.

Findings of the Effects of Academic Self-concept on their Corresponding Achievement

In order to investigate the effect of academic self-concept of students on their corresponding achievement, simple regression was calculated. Table 9 presented the results of simple regression for academic self-concept and their corresponding achievement.

Table 9   Simple Regression for Students' Academic Self-concept and their Corresponding Achievement

Variable	R	R square	Adjusted R square	F	p	B	Beta
ESC	.392	.153	.152	108.3	.000***	.665	.392
EA						.211	
MSC	.292	.085	.084	55.71	.000***	6.38	.292
MA						.155	
PSC	.203	.041	.040	25.83	.000***	10.9	.203
PA						.094	
ASC	.334	.112	.110	75.23	.000***	15.5	.334
A						.165	

Note: ***$P<.001$

    ESC = English Self-concept   EA = English Achievement
    MSC = Mathematics Self-concept   MA = Mathematics Achievement
    PSC = Physics Self-concept   PA = Physics Achievement
    ASC = Academic Self-concept   A = Achievement

Table 9 showed that there was an effect by English self-concept on English achievement, Mathematics self-concept on Mathematics achievement, Physics self-concept on Physics achievement. The results were statistically significant (F = 75.229, p<.001) for academic self-concept and achievement. The adjusted R square value was .11. This indicated that 11% of the variance in achievement was explained by academic self-concept. According to Cohen (1988), this is a small effect. Therefore, it was interpreted that high school students' academic self-concept had slightly positive effect on their achievement.

Discussion

As Mathematics self-concept had the highest mean in three subjects, high school students were likely to have better academic self-concept in Mathematics than English and Physics. Mathematics achievement had the highest mean in three subjects. Therefore, it can be concluded that high school students had better achievement in Mathematics than English and Physics. Generally, students are familiar with Mathematics than English and Physics since they were young, easier to use in daily life and have little memorizing in learning. Therefore, they are active and more interest in learning Mathematics, so they had positive self-concept and better achievement in Mathematics than English and Physics.

According to the results, the high school students had the highest mean in self-evaluation in three subjects and the lowest mean in effort in English, confidence in Mathematics and Physics. Generally, high school students are happy to learn three subjects, well-prepared to take these exams and satisfied with their effort in learning these subjects. So, they had the highest self-evaluation in English, Mathematics and Physics. And they should give more time to study English than Mathematics and Physics; because they are weak in effort in English. Then, they are

weak confidence in solving problems in Mathematics and Physics although they are interest and take effort in these subjects.

Moreover, there was significant difference in the academic self-concept of high school students in three subjects in terms of gender. Female students had higher academic self-concept in three subjects than male students. Rosenberg and Simmons (1975) noted that adolescence girls are more concerned about being well-liked, more affected by others' opinion of them, and more eager to avoid behavior that elicits negative reaction and Lau and Leung (1997) commented that girls are higher in their need for affection and affiliation (cited in Liu & Wang, 2005). Accordingly, girls will have more willingness to get appraisals from others and to try hardly in academic situations. For these reasons, girls can be assumed to be high effort in academic tasks and then they have high academic confidence, which may result high academic self-concept and achievement.

Besides, there was significant difference in Physics self-concept of high school students in terms of location but not in English and Mathematics. Urban and rural students had nearly the same academic self-concept in English and Mathematics. And, rural students had better academic self-concept than urban students in Physics. This is because of the high level of principal's administration and strong effort of physics teachers.

In addition, there was significant difference in the achievement of high school students in three subjects in terms of gender. Female students had higher achievement in three subjects than male students. Greenfield (1996) discussed that statistically significant differences in achievement were found among students on the basis of gender. In the study of Mirza and Malik (2000), they found that overall performance of girls were better than that of boys at all levels of education starting from primary to college level in Pakistan (cited in Rizwan&Zafar, 2005).

Then, there was significant difference in the achievement of high school students in three subjects in terms of location. A possible explanation for this finding could be the socio-economic status of the parents of the students. Generally, the parents of students in urban had higher education level than parents of the students in rural. According to their level of education, it could be that parents of students in urban high schools were more conscious of the benefits of education, communicated this knowledge to their school going children, and strive to improve the achievement of their children. And, it could be uneven distribution of resources, poor facilities, problem of qualified teachers refusing appointment or not willing to perform well in isolated villages and poor communication.

According to the research findings, there was a significant relationship between academic self-concept of high school students and their corresponding achievement. Therefore, it can be concluded that if the academic self-concept of high school students is high, the achievement of students will be high.

From this research, there is an effect of academic self-concept of high school students on their corresponding achievement. The result revealed that general academic self-concept can explain 11% of the variance in achievement. In the study of Dramanu & Balarabe (2013), academic self-concept can explain 9% of the variance in academic achievement. In the study of Cokley (2000), academic self-concept can explain 21% of the variance in academic achievement. So, this study agreed with the studies of Dramanu & Balarabe (2013) and Cokley (2000).

Many research studies had been developed the factors affecting the academic achievement of students as student's characteristics, parent's characteristics and teacher's characteristics. There were the key factors of student's characteristics as self-efficacy, motivation, attitudes and behavior, academic competency, communication skills, collaboration, academic self-concept, time management and engagement in class activities, and parent's characteristics as the education level of the parent, family income, parent support and educational expectation, and then, teacher's characteristics as teaching experience, qualification, workload, teacher's behavior and personality that affect the students' academic achievement. Therefore, the academic self-concept of students affects 11% on their achievement. So, teachers and parents should try to improve the academic confidence, interest, effort and self-evaluation of children in order to increase their achievement.

Suggestions

Gender difference in the academic self-concept and achievement of high school students was found in the study. This finding by implication is that, male and female students differed in the views they hold about their academic competence and capabilities. Therefore, to increase the level of the academic self-concept and achievement of male students, the teachers and parents should try the male students take more effort and interest in the academic subjects and feel confident in their abilities and capabilities.

From the results, urban and rural students had nearly the same academic self-concept in English and Mathematics. This finding by implication is that, both urban and rural students in Myanmar high schools did not differ in the views they hold about their academic competence and capabilities in English and Mathematics. But, rural students had higher academic self-concept in Physics than urban students. So, the physics teachers in urban schools should do the students feel confident in their abilities and capabilities by praising even their small successes in order to increase the academic self-concept in Physics.

According to the research findings, urban students had better achievement than rural students. So, it is recommended that the Government should bridge the gap between the rural and urban locations by providing adequate learning resources, facilities and good communication. Then, adequate incentives provided to rural area teachers to encourage them to put their effort in teaching.

The results of the study showed there was a positive effect of academic self-concept of high school students on their achievement. This finding suggests that the views that students hold about their academic competence and capabilities are valuable variables that have the potential to facilitate the realization of students' goals in a range of settings including the school. This finding underscores the importance of how students feel about their competence and ability to be successful in their educational programs. Students who are convinced that they are good and have the ability to succeed or control their educational experiences are likely to make efforts to excel in school works.

Therefore, it was important to increase the academic self-concept of students in order to increase the achievement. The role of teachers is significant to improving students' academic self-concept. Sang (2003) discussed that the formation of self-concept is based on perceptions of one's self and others towards him. He also stated that school influences and changes an individual's behavior through aspirations and interactions of peers group and teachers. According

to him, the important role of classroom teachers can be seen in the formation of academic self-concept. Others' perceptions towards a person also impact his self-perceptions. Teachers' behavior, attitudes, words and values shape the self-concept students because they are role models for students. So, teachers should care their words and behavior in treating students.

Marsh and Craven (1997) discussed that academic achievement is substantially affected by academic component of self-concept (cited in Rizwan & Zafer, 2005). Because academic self-concept is students' perceptions of their own strengths and weaknesses in academic situation themselves, it may be one of the most important things in learning. A student who perceives himself as a person who always needs help in mathematics class always feels not to solve problems in mathematics and he does not try to solve any problem, and then gets help from others accordingly, his skill of mathematics will decline and his mathematics achievement will be low gradually. Again, a students who perceives himself as a learner who enjoys studying for mathematics will try to solve every problem in mathematics class and he feels happy in solving mathematics problems if so, he will get high skills at mathematics and high achievement. According to this, it can be assumed that a change in academic self-concept will impact on a change in achievement. So, the class teachers need to improve students' self-concept in specific subjects in every class time.

And, teachers should create an environment that is rich with successful opportunities, and allow for successive approximations leading toward the end goal. As students acquire confidence that they can successfully complete the range of individual steps leading to the end goal, the more confident they will feel. So, teachers should train the students feel academically capable in easy tasks and, it sure that they have academic self-concept, then teachers should go to the difficult tasks.

Then, teacher should avoid blaming the students for their weaknesses by comparing with the abilities of others and should give appraisal words to them in their successful tasks. If so, students develop satisfaction and confidence in their abilities and competencies and then they put more effort in their learning process. As a result, academic achievement will increase.

In summary, the results of the present study prove academic self-concept is significantly correlated with academic achievement. Many empirical studies support this relationship. So, teachers and educators need to emphasize academic self-concept of learners and need to strive to help them to build up high positive academic self-concept.

Conclusion

Academic self-concept is the perception of an individual about his or her ability and capability in academic subjects they study in the school. Students' self-perceptions about their academic capabilities form an important part of their adjustment in school. These perceptions play a significant role in directing students' efforts towards their academic work.

The result of the study showed that there was a positive effect of academic self-concept of high school students on their achievement. Individuals with high academic self-concepts are more likely than those with low academic self-concept to study hard in order to perform well academically. The actions and reactions of teachers, parents and significant others towards students should be such they are intended to encourage, suggest, assure and reinforce students that they are academically capable and can do well if they work harder. These words of

encouragement are likely to have an impact on the self-belief of the students making them see themselves as academically competent and capable, and thus strive to study hard in order to perform well academically.

Therefore, it is indispensable to take efforts to improve the academic self-concept of students. Academic self-concept is an important factor in improving a student's achievement. Teachers and parents should be offered adequate and sufficient training in the areas of children's personal and social competence (self-concept, self-esteem, social abilities, personal development, etc.,) as an avenue to improve academic performance as well as achievement of learners.

This study is provided the effects of academic self-concept on achievement of high school students and the findings are valuable to parents, teachers, educators and responsible persons in identifying possible causes of poor academic achievement. And, this research is provided the ways of improving the academic self-concept of children to teachers and parents. Therefore, this paper is expected to give a support for increasing the academic self-concept and achievement of high school students.

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