# THE RELATIONSHIP OF ATTITUDES TOWARD MATHEMATICS AND MATHEMATICS SELF-EFFICACY WITH MATHEMATICS ACHIEVEMENT OF GRADE 10 STUDENTS AT A LEN BUM IDPS HIGH SCHOOL IN KACHIN STATE, MYANMAR

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**Abstract:** The purpose of this study was to determine the level of attitudes toward mathematics, mathematics self-efficacy, mathematics achievement of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar and the relationship among them. The study focused on 200 of Grade 10 students who enrolled in A Len Bum IDPs High School in the academic year 2018-2019. Attitudes toward mathematics questionnaire (ATMQ) and sources of mathematics self-efficacy scale (SMSES) were used as the research tools in this study. For mathematics achievement, mathematics scores from the national test in the academic year 2017-2018 (previous year) of Grade 10 students were considered to determine the level of mathematics achievement in this study. The findings of this study were the level of attitudes toward mathematics of Grade 10 students was high, the level of mathematics self-efficacy of Grade 10 students was moderate, and the level of mathematics achievement of Grade 10 students was moderate as well. The final finding of this study showed that there was no significant relationship of attitudes toward mathematics and mathematics self-efficacy with mathematics achievement of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar.

**Keyword**: Attitudes toward Mathematics, Mathematics Self-efficacy, Mathematics Achievement, A Len Bum IDPs High School.

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**Introduction**

Attitude is considered as a major factor that impacting on the learning process. There are many definitions about attitude according to the various perspectives from different scholars. In psychology, attitude is regarded as a set of emotions and beliefs and an outcome of experience or upbringing. Maio and Haddock (2010) also postulated that attitude is composed of an affective component, a cognitive component and a behavioral component. According to Larsen (2013), studying mathematics is not only cognitive challenge, but an affective one. Consequently, learning mathematics is related to three categories: beliefs, attitudes and emotions (McLeod, 1992). Self-efficacy is also one of the major factors that effecting on the learning process and achieving learning goal. According to Pajares (1996) explained that self-efficacy belief is the strongest predictor of learners to achieve highly by comparing other factors such as prior mathematics achievement and cognitive ability. More importantly, in self-efficacy theory, self-efficacy of a person is constructed by the four sources: mastery experiences, vicarious experiences, verbal persuasion, and affective factors (Bandura, 1994). A Len Bum IDPs High School is one of the secondary high schools under the control of Education Department of Kachin Independence Organization (KIO) in Kachin State, Myanmar. The researcher has found out that the mathematics scores of students in secondary level in this school are lower than other subjects' scores according to their academic results. The researcher had also noticed that there has been no previous research of examining the relationship of attitudes towards mathematics and mathematics self-efficacy with mathematics achievement in this school. From the above reasons, the researcher decided to choose this school to conduct this study in A Len Bum IDPs High School and this school is mainly opened for IDPs students who have been abandoned their home because of the civil war. The school has the highest population of secondary level students among the schools under the control of Education Department of KIO.

**Objectives**

The objectives of this study are as follows:

1. To determine the level of the attitudes towards mathematics of Grade 10 students at A Len Bum IDPs High School.
2. To determine the level of mathematics self-efficacy of Grades 10 students at A Len Bum IDPs High School.
3. To determine the level of mathematics achievement of Grade 10 students at A Len Bum IDPs School.
4. To determine there is a significant relationship between attitudes towards mathematics and mathematics self-efficacy with mathematics achievement of Grade 10 students at A Len Bum IDPs High School.

## Literature Review

### *Attitudes*

In psychology, attitude is defined as an organization of emotions, beliefs, and behaviors towards a person, a thing or an event. An attitude may be comparatively persistent of beliefs, feelings, and behavioral tendencies towards particularly situations and tasks such as objects, groups, events or symbols (Hogg & Vaughan, 2005). Attitude is also regarded as the result of experiences and has a strong influence on human behavior. According to the social learning theory by Bandura (1977), people can acquire attitudes by observing, imitating the objects in their environment or the behavior of the person they admire. Maio and Haddock (2010) mentioned that an attitude is composed of the affective component, cognitive component, and behavioral component and these three-component models are currently supportive in comparison to one-component-models which focus the affective reaction.

### *Self-Efficacy*

The term self-efficacy was introduced by Bandura around 40 years ago. But the research and studies on the concept of self-efficacy have been growing steadily. In social cognitive theory, self-efficacy is regarded as an individual's judgments of their abilities to compose and execute courses of action required to achieve designated types of performances (Bandura, 1986). Self-efficacy is an important concept that influences human learning and the high self-efficacy belief boosts personal motivation, the accomplishment of the performance of people and personal well-being in various ways (Bandura, 1994). Self-efficacy directly provides the benefit to our normal life. According to Neil (2005), self-efficacy belief is about one's capacities to accomplish specific tasks in normal life such as driving, public speaking, and studying.

Individuals who have high assurance in his/her abilities and capabilities approach to face the new challenges rather than to avoid them. People who disbelieve their abilities and have low aspiration run away from the difficult tasks and they are more likely to give up the tasks. In turn, constructing beliefs on our own capabilities improves the levels of self-efficacy and have an impact on what we are able to do (Cook, 2017). If we are able to raise the level of self-efficacy, there is a positive impact on emotional state and the level of motivation. Self-efficacy is applied not only in education and business field, but for the behavior of people such as self-control of chronic disease, smoking, using alcohol, eating, pain control and doing exercise (Carey & Forsyth, 2014).

### *Social Cognitive Theory*

In 1986, Bandura introduced social cognitive theory that presented individual's behaviors are a product of their environments and vice versa. Bandura (1986)

developed the social cognitive theory which postulated about that people are neither absolutely controlled by inside impulses nor automatically driven by environment pushes.

The individual contributes to their own motivation, behavior, and development within reciprocally interactive influences each other. In this social cognitive theory, human functioning participates as a major role to cognitive, vicarious, self-regulatory, and self-reflective processes in human adaptation and change. From the theoretical perspective of human psychological functioning, people were considered as self-organizing, proactive, self-reflecting, and self-regulating (Pajares, 2006).

*Theory on Attitudes*

According to Evans (2011), attitudes toward mathematics are defined as an individual's positive feelings toward mathematics in terms of enjoyment and motivation. By depending on this definition, Catapano (2013) combined the items from the 2003 PISA (Program for International Students Assessment) that described in Instrumental Motivation to Learn Mathematics and Interest In and Enjoyment of Mathematics created by OECD (the Organization for Economic Cooperation and Development) to represent attitudes toward mathematics.

Attitudes toward mathematics are considered as an individual's feelings while mathematics self-efficacy is a judgment of an individual's capabilities, and mathematics self-concept is regarded as a composite view obtained by direct experiences (Bandura, 1986). From the concept of this definition, attitudes toward mathematics can be assumed as an individual construct that differs from mathematics self-efficacy and mathematics self-concept.

*Self-Efficacy Theory*

Self-efficacy is one of the main concepts in social cognitive theory. Bandura (1994) theorized that there are four sources that influence on the individual's self-efficacy beliefs in self-efficacy theory. These are mastery experiences, vicarious experiences, social persuasions, and physiological factors. Mastery experiences is the most important and influential source in individual's self-efficacy beliefs. The past experiences effect self-efficacy and the high sense of self-efficacy beliefs can be built by the past success.

The second source of self-efficacy is vicarious experiences that mean observing others. Norm-referencing and social comparison affect people to perceive their capabilities in related to the successes or failures of others (Hendricks, 2015).

Social persuasion is the third source of self-efficacy which mean that individual's self-efficacy can be affected by encouragement or discouragement of others. Physiological factors is The last source of self-efficacy and this source is the

least influential one on self-efficacy belief when comparing to other three factors.

**Conceptual Framework**

Grade 10 students in A Len Bum IDPs High School were considered as the source of data in this study. The researcher considered attitudes toward mathematics and mathematics self-efficacy as the independent variables and mathematics achievement as the dependent variable. The mathematics scores of national examination in the 2017-2018 academic year (previous year) of Grade 10 students were collected to determine the students' level of mathematics achievement

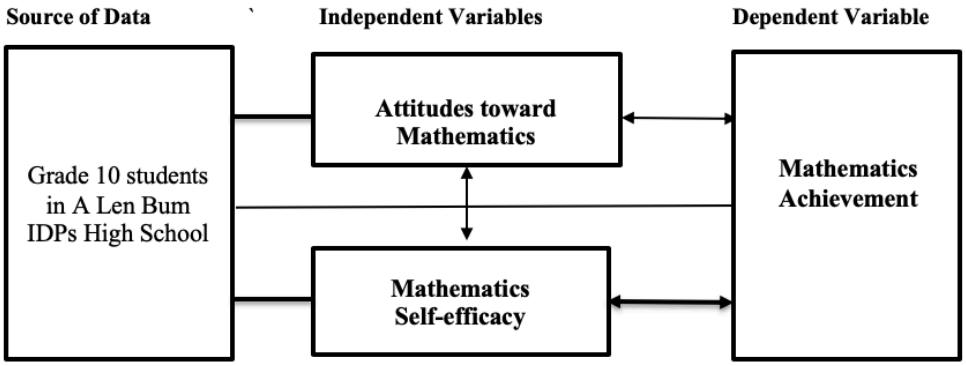


*Figure 1.* Conceptual framework

**Population**

The population of this study is 200 students in Grade 10 who enrolled in the academic year of 2018-2019 at A Len Bum IDPs High School in Kachin State, Myanmar.

**Research Instrument**

The researcher used the research questionnaire as the primary data collection instrument to conduct this study. There are two questionnaires in this study. In the first questionnaire, Attitudes toward Mathematics Questionnaire (ATMQ) by Catapano (2013) was applied to determine the level of attitudes toward mathematics of students. In the second questionnaires, the researcher used the Sources of Mathematics Self-Efficacy Scale (SMSES) developed by (Usher & Pajares, 2009) to determine the level of mathematics self-efficacy of students.

**Findings**

*The findings are clarified and presented according to the research objectives.*

*Research Finding for Objective 1*

Research Objective 1 was to determine the level of the attitudes towards mathematics of the Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar.

The researcher applied ATMQ to determine the level to the attitudes towards mathematics of students. There are eight items in ATMQ and the researcher used 5-point Likert scale with ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The interpretation scale of attitudes toward mathematics of Grade 10 students was divided into five parts: very high, high, moderate, low, and very low. Table 10 shows the mean scores, standard deviations, and interpretation of Grade 10 students' attitudes towards mathematics in A Len Bum IDPs High School in Kachin State, Myanmar.

**Table 1: Mean Scores, Standard Deviations, and Interpretation of Grade 10 Students' Attitudes Toward Mathematics in A Len Bum IDPs High School in Kachin State, Myanmar**

| Item | Item statement | *M* | *SD* | Interpretation |
|---|---|---|---|---|
| 1 | I enjoy reading about mathematics. | 3.58 | .98 | High |
| 2 | Making an effort in mathematics is worth it because it will help me in the work that I want to do later on. | 4.45 | .71 | High |
| 3 | I look forward to my mathematics lessons. | 3.23 | .80 | Moderate |
| 4 | I do mathematics because I enjoy it. | 3.21 | .78 | Moderate |
| 5 | Learning mathematics is worthwhile for me because it will improve my career prospects. | 4.46 | .76 | High |
| 6 | I am interested in the things I learn in mathematics. | 3.87 | .76 | High |
| 7 | Mathematics is an important subject for me because I need it for what I want to study later on. | 4.55 | .58 | Very high |
| 8 | I will learn many things in mathematics that will help me get a job. | 4.51 | .70 | Very high |
| | Total | 3.98 | .77 | High |

In Table 1, the level of attitudes towards mathematics of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar is high with mean scores 3.98. The mean scores of Items 7 and 8 show the very high mean scores with 4.55 and 4.51 according to interpretation score. But the results of the table display that Items 3 and

4 have the moderate level with means scores 3.23 and 3.21 respectively.

*Research Finding for Objective 2*

The research Objective 2 was to determine the level of mathematics self-efficacy of the Grades 10 students at A Len Bum IDPs High School in Kachin State, Myanmar. SMSES was used to determine the level of students' mathematics self-efficacy. For Objective 2, there are four subscales: mastery experiences, vicarious experiences, social persuasions, and physiological states. Tables 11, 12, 13, 14 display mean scores, standard deviations, and interpretation for those four subscales. Table 11 shows mean scores, standard deviations and interpretation for mastery experiences of mathematics self-efficacy of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar.

**Table 2: Mean Scores, Standard Deviations, and Interpretation for Mastery Experiences**

| Item | Item statement | *M* | *SD* | Interpretation |
|---|---|---|---|---|
| 1 | I make excellent grade on math tests. | 2.28 | .99 | Low |
| 2 | I have always been successful with math. | 2.99 | .86 | Moderate |
| 3 | Even when I study very hard, I do poorly in math. | 3.57 | 1.04 | High |
| 4 | I got good grades in math on my last report card. | 2.31 | 1.00 | Low |
| 5 | I do well on math assignments. | 3.23 | .79 | Moderate |
| 6 | I do well on even the most difficult math assignment. | 2.80 | .90 | Moderate |
| | Total | 2.86 | .93 | Moderate |

There are six items in mastery experiences subscale and each item has each interpretation scale. However, Item 3 is negatively worded item and the researcher used reversed coding of this item. Results in Table 12 shows the total mean score of mastery experiences was $M = 2.86$ which demonstrates that the mastery experiences of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar was on moderate. It can be seen that Items 1 and 4 have low mean scores and item 3 has high mean scores.

**Table 3: Mean Scores, Standard Deviations, and Interpretation for Vicarious Experiences**

| Item | Item statement | *M* | *SD* | Interpretation |
|---|---|---|---|---|
| 7 | Seeing adults do well in math pushes me to do better. | 2.96 | .97 | Moderate |
| 8 | When I see how my math teacher solves a problem, I can picture myself solving the problem in the same way. | 2.90 | .87 | Moderate |
| 9 | Seeing kids do better than me in math pushes me to do better. | 2.99 | 1.01 | Moderate |
| 10 | When I see how another student solve a math problem, I can see myself solving the problem in the same way. | 2.88 | 1.00 | Moderate |
| 11 | I imagine myself working through challenging math problems successfully. | 2.90 | .95 | Moderate |
| 12 | I complete with myself in math. | 2.56 | .93 | Moderate |
| | Total | 2.86 | .96 | Moderate |

There are six items in vicarious experiences. Results in Table 3 shows that all items have moderate mean scores. In an overall look, the total mean score of vicarious experiences was $M = 2.86$ which demonstrates that vicarious experiences of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar was on moderate.

**Tablee 4: Mean Scores, Standard Deviations, and Interpretation for Social Persuasions**

| Item | Item statement | *M* | *SD* | Interpretation |
|---|---|---|---|---|
| 13 | My math teachers have told me that I am good at learning math. | 2.31 | .98 | Low |
| 14 | People have told me that I have a talent for math. | 2.30 | 1.03 | Low |
| 15 | Adults in my family have told me what a good math student I am. | 2.19 | .93 | Low |
| 16 | I have been praised for my ability in math. | 2.23 | 1.00 | Low |
| 17 | Other students have told me that I am good at learning math. | 2.29 | .97 | Low |
| 18 | My classmates like to work with me in math because they think I am good at it. | 2.65 | .96 | Moderate |
| | Total | 2.33 | .98 | Low |

There are six items in social persuasions. Results in Table 4 displays the total mean score of social persuasions was *M* = 2.33 which demonstrates that social persuasions of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar was on low. It is also noticed that Items 13,14,15,16, 17 have low mean scores when comparing with Item 18 which has moderate mean score.

**Table 5: Mean Scores, Standard Deviations, and Interpretation for Physiological Factors**

| Item | Item statement | *M* | *SD* | Interpretation |
|---|---|---|---|---|
| 19 | Just being in math class makes me feel stressed and nervous. | 3.65 | 1.16 | High |
| 20 | Doing math work takes all of my energy. | 2.75 | 1.19 | Moderate |
| 21 | I start to feel stressed-out as soon as I begin my math work. | 3.12 | 1.22 | Moderate |
| 22 | My mind goes blank and I am unable to think clearly when doing math work. | 2.95 | .97 | Moderate |
| 23 | I get depressed when I think about learning math. | 3.11 | 1.06 | Moderate |
| 24 | My whole body becomes tense when I have to do math. | 3.08 | 1.15 | Moderate |
| | Total | 3.11 | 1.13 | Moderate |

There are six items in physiological states and all items in this subscale are negatively worded items. The total mean score of physiological states was *M* = 3.11 which demonstrates that physiological states of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar was on moderate.

Moreover, results in Table 5 displays that Items 19, 20, 21, 22, 23 have moderate mean scores when comparing with item 19 which has high mean score.

**Table 6: Mean Scores, Standard Deviations, and Interpretation for Mathematics Self-Efficacy of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar**

| Subscales of motivation | *M* | *SD* | Interpretation |
|---|---|---|---|
| Mastery experiences | 2.86 | .93 | Moderate |
| Vicarious experiences | 2.86 | .96 | Moderate |
| Social persuasions | 2.33 | .98 | Low |
| Physiological states | 3.11 | 1.13 | Moderate |
| Total | 2.79 | 1.00 | Moderate |

Table 6 shows that Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar have moderate mathematics self-efficacy with $M = 2.79$. The mean score of mastery experiences was 2.86, mean score of vicarious experiences was 2.86, mean score of social persuasions was 2.33, and mean score of physiological states was 3.11. According to the results, mean score of social persuasions is low with $M = 2.33$ while other subscales have moderate mean scores. Among the four subscales social persuasions have the smallest means score.

*Research Finding for Objective 3*

Research Objective 3 was to determine the level of mathematics achievement of the Grade 10 students at A Len Bum IDPs School in Kachin State, Myanmar. The researcher collected the mathematics scores of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar from the national examination of the previous academic year (2017-2018) to interpret the level of mathematics achievement. The interpretation scale of mathematics achievement was divided into five parts: very high, high, moderate, low, and very low. Table 7 displays mean scores, standard deviations and interpretation of mathematics achievement of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar.

**Table 7: Mean Scores, Standard Deviations, and Interpretation for Mathematics Achievement of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar**

| Mathematics achievement | *M* | *SD* | Interpretation |
|---|---|---|---|
| Mathematics score of Grade 10 students from national examination of previous academic year | 50.89 | 10.59 | Moderate |

The result of Table 7 shows that the mean score of mathematics achievement of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar was 50.89 which is interpreted as the moderate level.

*Research Finding for Objective 4*

The research Objective 4 was to determine there was a significant relationship of attitudes towards mathematics and mathematics self-efficacy with mathematics achievement of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar. To examine the Objective 4, the research used statistical hypothesis for three variables in this study. To address the research Objective 4 the researcher calculated bivariate correlations between attitudes toward mathematics, mathematics self-efficacy, and mathematics achievement test score of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar. Table 8 shows bivariate correlations among attitudes toward mathematics, mathematics self-efficacy, and mathematics achievement of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar.

**Table 8: Bivariate Correlations Among Attitudes Toward Mathematics, Mathematics Self-Efficacy, and Mathematics Achievement of Grade 10 Students at A Len Bum IDPs High School in Kachin State, Myanmar**

| Variables | 1 | 2 | 3 |
|---|---|---|---|
| 1. Mathematics achievement | - | - | - |
| 2. Attitudes toward mathematics | .06 ($p$ = .384) | | |
| 3. Mathematics self-efficacy | -.016 ($p$ = .824) | .344** ($p$ < .001) | |

Note. **$p$ < .001, two-tailed.

The bivariate correlations among the three variables in this study (attitudes toward mathematics and mathematics achievement, mathematics self-efficacy and mathematics achievement, and mathematics self-efficacy and attitudes toward mathematics self-efficacy), show that attitudes toward mathematics and mathematics self-efficacy of Grade 10 students did not have significant relationship ($r$ = .06, $p$ = .384) as a significant level of .05.

Similarly, there was no statistically positive significant relationship ($r$=.-016, $p$ = .824) between mathematics self-efficacy and mathematics achievement.

However, Grade 10 students' attitudes toward mathematics and mathematics

self-efficacy are correlated ($r$= .34, $p$ < .001) as a significant level of .05. The coefficient of determination ($r^2$) for these variables is .11, which indicates that 11% of the variance in the relationship of Grade 10 students' attitudes toward mathematics could be accounted by their mathematics self-efficacy.

The research hypothesis of this study is that there was a significant relationship of attitudes toward mathematics and mathematics self-efficacy with mathematics achievement of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar at significance level of .05. According to the results of Table 8, two dependent variables, attitudes toward mathematics and mathematics self-efficacy, had a weak relationship. However, there is no statistically significant relationship between attitudes toward mathematics and mathematics achievement. Similarly, there was no significant relationship between mathematics self-efficacy and mathematics achievement. So, multiple correlation coefficient did not require to be calculated for those three variables.

**Discussion**

The findings of the current study revealed that there was no significant relationship of attitudes toward mathematics and mathematics self-efficacy with mathematics achievement of Grade 10 students at A Len Bum IDPs High School in Kachin State, Myanmar. The main reason why the researcher chose this school is that this A Len Bum IDPs High School has the largest population of IDPs secondary students in Kachin State. The findings of this study revealed the current level of attitudes toward mathematics, self-efficacy, and achievement of 200 of Grade 10 IDPs students. The researcher assumed that the findings and the following discussions of this study will strongly be beneficial and supportive to other IDPs high schools in Kachin State, Myanmar.

*The Relationship of Attitudes Toward Mathematics and Mathematics Achievement*

The findings of this study showed that Grade 10 students of A Len Bum IDPs High School have the high level of attitudes toward mathematics. According to the definition of attitudes toward mathematics by Evans (2013), Grade 10 students of A Len Bum IDPs High School have strongly positive feeling toward mathematics in terms of enjoyment and motivation according to this definition. It also means that the students have high expectation on mathematics for their future carriers. The similar study of this research was done in Malaysia by Taat and Rozario (2014), in Pakistan by Mubeen, Saeed and Arif (2013), in India by Zulekah and Aqil (2015) and Bhowmik and Banerjee (2016).

Taat and Rozario (2014) revealed that student's attitude is not a strong predictor for mathematics achievement in Masterskill Global College. It is meant that the grade and score in mathematics of students is not influenced by attitude. Mubeen,

Saeed and Arif (2013) pointed out that the level of attitudes toward mathematics and mathematics achievement are depending on gender. According to their studies, there was a positively significant relationship between attitudes toward mathematics and mathematics achievement of girls, but there was no significant relationship between those two variables of boys. They finally noted that attitudes toward mathematic and mathematics achievement are not going together and do not depend on each other. However, from the study of Bhowmik and Banerjee (2016), the level of attitudes toward mathematics depends truly on mathematics achievement.

In this study, the researcher found out that there is no statistically significant relationship between attitudes toward mathematics and mathematic achievement of Grade 10 students in A Len Bum IDPs High School. The researcher assumed that there are some reasons why attitudes toward mathematics and achievements are not significant correlated. The students have high positive feelings and attitudes on mathematics, but their achievements are not high. The main reason that the researcher assumed is that A Len Bum IDPs High School is standing with the support of NGOs and other local organizations to run the school system. The school does not have enough resources such as internet access, good library, and reference books to develop their mathematics skills of students. Other reasons are that the class is overcrowded and the school does not have enough teachers. So, it is considered that the above reasons lead why attitudes toward mathematics and achievements are not correlated. From the above result, the researcher concludes that attitudes toward mathematics do not have a strong impact on mathematics achievement.

*The Relationship of Mathematics Self-Efficacy and Mathematics Achievement*

The findings of this study demonstrated that mathematics self-efficacy did not have significant relationship with mathematics achievement of Grade 10 students in A Len Bum IDPs High School in Kachin State, Myanmar. This finding was contrary to my expectation. The study of correlation between mathematics self-efficacy and mathematics achievement was similarly conducted by previous researchers, Ayotola and Adedeji (2009) in Nigeria, Ocheing (2015) in Kenya, Perez and Yan (2013) in Thailand, and Loo and Choy (2013) in Singapore. All of these researchers found out that students' achievements do not strongly depend on their self-efficacy and their findings supported self-efficacy theory of Bandura that asserted that self-efficacy beliefs are able to predict academic achievement of students.

However, in this study, mathematics self-efficacy and mathematics achievement are not correlated each other. According to this study, self-efficacy is built by four primary sources: mastery experiences, vicarious experiences, social persuasions, and physiological factors. Among these four sources the students have the lowest level in social persuasions while they have the moderate level in others according to statistical results. It is assumed that the encouragement of teachers,

parents, and peers are hugely required for the students to have confidence in mathematics. The parents of students are working almost every day to survive and they cannot involve in studying of their children. Another possible reason is that there are over sixty students in a classroom and the teacher cannot pay attention and feedback to each student. The above reasons are the big concern for the principal, teachers, and parents in order to improve self-efficacy belief of students in mathematics.

*The Relationship of Attitudes Toward Mathematics and Mathematics Self-Efficacy*

The findings of this study suggested that there is a relationship between attitudes toward mathematics and mathematics self-efficacy. The findings of this study were also in line with Kundu and Ghose (2016), and Nicolaidou and Philippou (2003) which revealed that a positive relationship between attitudes toward mathematics and mathematics self-efficacy. Kundu and Ghose (2016) proved that self-efficacy in mathematics is directly connected with attitudes toward mathematics. Increasing student's attitudes is boosting their confidence and self-beliefs in mathematics. Nicolaidou and Philippou (2003) also showed that students' self-efficacy beliefs are highly manipulated by attitudes in solving mathematics problems.

In this study, however, the researcher found out that students' mathematics self-efficacy was weakly correlated with their attitudes toward mathematics. The results of this study presented that students' self-efficacy beliefs in mathematics can be interpreted by determining their attitudes toward mathematics. So, it can be recognized that if students have high self-efficacy beliefs in mathematics, their attitudes toward mathematics are undoubtedly high. Finally, the researcher assumed that mathematics self-efficacy of Grade 10 students in A Len Bum IDPs High School was correlated with their attitudes toward mathematics.

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