Correlation of Self-Regulated Learning and Academic Achievement among Universiti Sultan Zainal Abidin (UniSZA) Undergraduate Students

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Abstract
This study examined the correlation between self-regulated learning and academic achievement among UniSZA undergraduate students. The objective of the study is to determine the impact of self-efficacy belief, and use of learning strategies on UniSZA undergraduates’ academic achievement. A pilot study was conducted via the use of exploratory factor analysis using 144 volunteering respondents. This is to determine the reliability and validity of the instrument. A closed-ended questionnaire on student self-regulated learning was administered to 364 randomly selected students 202 of which are female, 162 male across the nine faculties of the University. Obtained data was analyzed using correlation and regression analysis. Results obtained indicated that a strong relationship exist between self-regulated learning and academic achievement. The findings revealed a high positive correlation between students’ self-efficacy belief, and use of learning strategies and students’ academic achievement. Similarly, results of the regression analysis indicated that self-efficacy, and learning strategies serves as good predictors of higher academic performance (GPA). However, among the three study variables, self-efficacy was the strongest predictor of academic achievement. The study recommends nurturing and development of autonomous learners and a shift to students centered instruction.

Keywords: Academic Performance, Self-Regulated learning, Self-Efficacy, Learning Strategies.

Introduction
There are different techniques to approach the nature of self-regulated learning. Self-regulated learning is an active process in which students establish the objectives leading their learning, try to monitor, regulate and control their thoughts, motivation and behavior in order to accomplish them. Therefore, studies on learning strategies, metacognition, learning objectives, and obviously the motivation of students are in the self-regulation learning concept (Heikkill & Lonka, 2006; Nicol & Macfarlane-Dick, 2006).
To understand the differences in levels of performance among students that cannot always be explained by inbuilt ability, researchers have considered a wide range of social-behavioral factors. One such aspect is the use of self-regulation in learning. Under this system, learners evaluate tasks, review the strategies available to them for achieving the tasks, apply themselves to completing the tasks. Similarly, they monitor the effectiveness of their strategies and depending on the outcome, revise their model for approaching similar tasks in the future (Jean, 2010).

The concept of self-regulated learning though developed in the 1980s, it began receiving widespread attention in the 1990s (Dinsmore, Alexander, & Loughlin, 2008). According to Zimmerman (1986), self-regulated learning is an activity that students do for themselves in an active way, rather than as a hidden event that happens to them reactively due to teaching experience. He believed that learners could set their objectives and monitor their performance against set standard.

A study conducted by Zimmerman (2001) revealed that students were traditionally assume not to initiate or substantially supplement experienced design to educate themselves. Instead, emphasis was on the role of teachers and other educators to adapt instruction to each learner based on his or her mental ability, sociocultural background, or achievement of educational standards. Contrary to this beliefs, self-regulation learning theories assume the students can personally improve their capacity to learn. This is achieved by a careful use of metacognitive and motivational strategies, thereby making learners proactive, select, structure and even create a helpful learning environment. They equally play a significant role in choosing the form and extent of instruction they need. He pointed out that self-regulation learning theories seek to explain and describe how a particular learner will learn and achieve despite apparent limitations in mental ability (as traditionally assessed), social-environmental background or in the quality of schooling. Similarly, self-regulated learning theories also seek to explain and describe why a learner might fail to learn despite apparent advantages in mental ability, social-environmental background, or quality of education. Due to these factors, self-regulated learning has become the current focus for research and one of the essential areas of educational practice (Pintrinch, 2000; Reynolds and Miller, 2003).

Problem Statement
For university students to be successful and become higher achievers, they must put in an extra effort toward their learning. One of such effort is becoming an independent learner. However, a major challenge for the university in the coming years is providing students with the necessary skills and competence to have autonomous learning. Educationally, autonomous learning implies the capability of the learners to control their own learning process (Schunk & Zimmerman, 2003; Zimmerman, 2002). This self-regulation skill plays a crucial role in the success of University students (Heikkila & Lonka, 2006; Nicol & Macfarlane-Dick, 2006; Notasoresi & Zimmerman, 2004). Conversely, Allgood, Risko, Alvarerez, and Fairbank (2000) indicated that the majority of students who reach higher studies are not well prepared to face
the academic challenges in the university system. Correspondingly, Tuckman (2003) pointed out that this lack of self-regulation processes as the primary factor leading to university failure.

Despite the power of self-regulated learning to motivate the learners and increases their overall success, Zimmerman (2002) observed that few teachers well prepare students to learn on their own. For instance, a study conducted by Corsi (2010) revealed that teachers are sometimes reluctant to create student-centered classrooms for the belief that teacher-directed learning allows the instructor to maintain better control and positive learning outcomes. The findings of the study support the idea that shifting from lecturing, and worksheets to self-regulated, project-based learning can lead to improving student achievement, increased motivation, and made the classroom environment more conducive to learning. For these reasons, teachers should consider how to help students develop self-regulated learning strategies as a part of classroom instruction. This stresses the need to move from teaching to self-reflective practice (Schunk & Zimmerman, 1998). This study examines the relationship between self-regulated learning and academic achievement among UniSZA undergraduate students with particular reference to students’ self-efficacy, motivation, and use of learning strategies.

Objectives of the Study
I. To examine the impact of self-efficacy belief in self-regulated learning and how it affects UniSZA undergraduate students academic achievement.
II. To find out whether UniSZA undergraduate students make use of self-regulated learning strategies.

Research Hypothesis
I. There is no significant relationship between self-efficacy belief in self-regulated learning and academic achievement among UniSZA undergraduates students.
II. There is no significant relationship between self-regulated learning strategies and academic achievement among UniSZA undergraduate students.

Concept of Self-Regulated Learning
Self-regulation is the control that students have over their cognition, behaviour, emotions and motivation through the use of personal strategies to achieve the goals they have established (Panadero & Alonso-Tapia, 2014). Corsi (2010) viewed self-regulated learning as a system that foster higher thinking skills in students, based on their innate strengths. He maintains that under this system, students are exposed to problems in the form of projects and must find solutions using their natural qualities and abilities. This method allows students to learn and manipulate their environment by applying their unique learning modes to interact with it.

Winnie and Perry (2006) states that students who are self-regulated learners are aware of their academic strengths and weaknesses. They maintain that due to this, they have a collection of strategies they apply to tackle the daily challenges of their academic tasks. Therefore, self-regulation should not be regards as a conventional method of learning but
instead viewed as a way in which individuals utilized to achieve their learning goals independently.

Gray (2011) believed that learning is more effective when the student is actively engaged in the learning process rather than receiving the knowledge in a passive way. To him, teachers perform a supervisory role of guiding students to answer leading questions. Learners actively construct and build their knowledge for themselves based on prior experiences from the known to unknown. Lenderman and Lenderman (2005) students build on what they already know and add to their knowledge or schema. This indicates that the sole role of teachers to self-regulated learners is that of supervision and guidance to ensure that the students do not deviate from the set goals. They have a great deal of handling the non-self-regulated students by providing a detailed conventional teaching to ensure that they both reach the stated objectives.

**Self-Efficacy Belief**

Self-efficacy refers to personal conclusions of one’s capabilities to consolidate and execute courses of action to attain designated goals (Bandura, 1997). It is a belief about what one can do rather than personal judgments about one’s physical or personal attributes. It is also content specific and varies across several dimensions, such as level, generality, and strength. The levels of self-efficacy refers to dependence on the difficulty level of a particular task, generality of self-efficacy denotes to the transferability of one’s efficacy judgments across different tasks or activities, while the strength of self-efficacy judgments pertain to the certainty to whom can perform a given task (Zimmerman, 1995). This indicates that the self-efficacy is not a personality or physical attributes. It is only measured on the level of work that can be only performed, the ability to use a similar strategy to solve a different task and lastly the rate of precision in accomplishing a given task.

Bandura (2006) maintained that a belief in one’s ability is an essential personal resource in self-development, successful adoption, and change. He stressed that efficacy belief operates through its impact on cognitive, motivational, affective, and decisional processes. Efficacy beliefs affect whether person think optimistically or pessimistically in self-enhancing or self-debilitating ways. To him, such beliefs influence people’s goals and aspirations, how they motivate themselves and their perseverance in the face of difficulties and diversity. He argued that efficacy beliefs tend to shape people’s outcome expectations, whether they expect their efforts to produce favorable results or adverse ones, it also determines how environmental opportunities and impediments are viewed. He pointed out that people of low self-efficacy beliefs are easily persuaded of the futility of effort in the face of difficulties. They quickly give up trying while those of high self-efficacy beliefs view impediments as surmountable by self-development and perseverant effort. Unlike the low self-efficacious people, high self-efficacy people stay the course in the face of difficulties and remain resilient to diversity. From the above, it is clear that students who have a firm belief in themselves will likely become successful in their academic pursuits and will be having the ability to adapt to changes. This is
because people of high self-efficacy face their life challenges with some degree of courage and perseverance and do not give up until they achieve their desired outcomes.

**Learning Strategies**

Weinstein and Mayer (1986) views learning strategies as behaviors and thoughts that a learner engages in throughout learning that are intended to influence the learner’s encoding process. Dweck and Master (2008) believed that in self-regulated learning, students use their repertoire of strategies to guide and enhance their learning processes. Without these strategies, they cannot effectively harness their cognitive skills or their motivation for skills acquisition. They maintained that students use of learning strategies, and their continued use of them in the face of difficulty is based on the belief that they are effective means of overcoming obstacles. However, many students do not hold such views. Instead, they believe that if you have high ability you should not need an effort or any deliberate learning strategies to master new learning tasks. They also believe that if you do not have high ability, efforts and strategies will not be effective. They highlighted that all these ideas grew out of students’ theories about their intelligence. Dweck and Master (2008) identified two types of intelligence: fixed and malleable intelligence. To them, fixed intelligent students have a belief that everyone has a deep-seated and unchangeable amount of intelligence. This entity agrees with the statement “you have a degree of intelligence, and you cannot do much to change it”. In contrast, other students believed that the intelligence is malleable and can be modified. These incremental agree with the statement “you can always considerably change how intelligent you are”. In this way, they can shape their goals and values, amend the meaning of failure and guide responses to difficulty. From the above, it is clear that a fixed view of intelligence discourages students from taking an active charge of their learning. Whereas, a malleable view of intelligence encourages students to undertake, regulate, and motivate their own learning processes. Robins and Pals (2002) believed that students’ endorsement of a particular theory is relatively stable over time. They stressed that the school system should try to nurture and develop students who have a malleable intelligence thought because these theories can be induced or taught with striking effects. Bandura (1986) ascribed much importance to learners’ use of self-regulation strategy. In his view, strategy application provides a student with valuable self-efficacy knowledge. This knowledge in turn is assumed to decide subsequent strategy selections and enactments; “such representation information is put to heavy use in forming judgments, constructing, and choosing courses of actions” (Bandura, 1986). This shows that individuals with knowledge of self-regulation strategies will have more exposure in selecting and applying various self-regulation strategies that best suit a given problem area of study than their counterparts with no such knowledge.
From the above, self-regulated learning stands as the independent variable of the study and is conceptualized in the study to consist of students self-efficacy belief, motivation and learning strategies. Students’ academic achievement measured as grade point average (GPA) is the dependent variable of the study.

Materials and Method

Participant

The population of the study consist of 364 Universiti Sultan Zainal Abidin students. The population consist of 202 male and 162 female respondents. The participants were randomly selected across all faculties of the University.

Instrument for Data Collection

To obtain the required information from respondents on self-regulated learning, the researcher used a questionnaire as a data collection tool. The questionnaire was developed by the researcher to ensure it covers the problem under study. A closed-ended questionnaire on a seven points rating scale ranging from 1 strongly disagrees to 7 strongly agree was developed. A closed-ended questionnaire is appropriate because it allows the participants to choose from given alternatives thereby avoiding the problem of unwanted responses. It is also very easy to score and time-saving. The questionnaire consist of four sections namely; demographic section with seven items, students’ self-efficacy section with nine items, motivation section with nine items and learning strategies section with twelve items. In all, the questionnaire consists of thirty-seven items that solicit information from the students on self-regulated learning.
Procedure
In order to recruit the participants for the study, the researcher obtained a verification letter from the Faculty of Islamic contemporary studies, Universiti Sultan Zainal Abidin. The letter was usually presented upon request from the respondents. Data for the study was collected at the beginning of second semester 2014/2015 academic session. This is because the researcher intends using the most recent students grade average point (GPA) of preceding semester. The questionnaire were distributed to students at lecture venue with the cooperation of class representatives and lecturers concern.

Statistical Analysis
Obtained data was analyzed using correlation analysis and a simple linear regression. The analysis was performed using Statistical Package for Social Sciences (SPSS).

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Self-efficacy</td>
<td>5.5180</td>
<td>.65174</td>
<td>364</td>
</tr>
<tr>
<td>Motivation</td>
<td>5.8327</td>
<td>.64412</td>
<td>364</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>5.2668</td>
<td>.71970</td>
<td>364</td>
</tr>
<tr>
<td>Students’ GPA</td>
<td>3.1892</td>
<td>.51014</td>
<td>364</td>
</tr>
</tbody>
</table>

The above table gives a descriptive statistic of the study variables. From the table, students’ self-efficacy belief, motivation, and learning strategies are the independent variables while students GPA is the only dependent variable. Students’ self-efficacy belief, motivation, and learning strategies are having mean values of 5.5180, 5.8327, and 5.2668 respectively. Students GPA which is the dependent variable of the study have 3.1892 as the mean score. The mean scores are the average points obtainable by each member of the sample that is 364 respondents.

Testing of Hypothesis one
There is no significant relationship between self-efficacy belief in self-regulated learning and academic achievement among UniSZA undergraduates students.

Table 2: Correlation between Self-efficacy and GPA

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>GPA</th>
<th>P</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy belief</td>
<td>.761**</td>
<td>0.000</td>
<td>364</td>
</tr>
</tbody>
</table>

The above table shows the correlation between students’ self-efficacy belief and academic achievement. Academic achievement is defined as students GPA. The correlation value of 0.761 indicated that a strong correlation exist between students’ self-efficacy belief...
and their academic achievement. This is because the correlation value 0.761 is fairly close to 1. The closer the value is to 1, the stronger the relationship. Similarly, the two variables are statistically significant at p = 0.000, p < 0.05, while the N represent the study sample that is 364. This indicates that the higher the level of student self-efficacy belief the higher will be his/her GPA grade and the lower the level of students’ self-efficacy belief the lower will be the GPA grade.

Therefore, based on the correlation value of 0.761 which indicates a strong positive correlation between the two variables, the null hypothesis there is no significant relationship between self-efficacy belief in self-regulated learning and academic achievement among UniSZA undergraduates students is rejected. The finding revealed that a strong correlation exist between students’ self-efficacy belief and their academic achievement.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.761</td>
<td>.580</td>
<td>.578</td>
<td>.33123</td>
</tr>
</tbody>
</table>

Predictors: (constant), students’ self-efficacy

From the above table, R-value 0.76 represents the correlation between the study variables. The R-square value of .580 represents the total variability of the dependent variable as explained by the independent variables. This shows that students’ self-efficacy belief explains 58% of the total variability in Students' GPA.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>54.751</td>
<td>1</td>
<td>54.751</td>
<td>499.036</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>39.716</td>
<td>362</td>
<td>.110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.468</td>
<td>363</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05. ** p < .01.

The analysis of variance (ANOVA) table is used in measuring the fitness fit of the model regression. From the above table, the F-statistic value is 499.036 while the P value is 0.000, which indicates that the regression model fit the data at hand because the P value (sig.) is less than 0.05.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.099</td>
<td>.148</td>
<td>-.668</td>
<td>.505</td>
<td></td>
</tr>
<tr>
<td>Students Self-efficacy</td>
<td>.596</td>
<td>.027</td>
<td>.761</td>
<td>22.339</td>
<td>.000</td>
</tr>
</tbody>
</table>
Dependent variable: students GPA. * p < .05. ** p < .01.

The regression coefficients table shows the effect of an independent variable over the dependent variable. Analysis of the coefficient table shows that when the independent variable is constant, we have a negative t-statistic value of t = -0.6537 with a value of P = 0.505, this is statistically insignificant because P > 0.05. However, students’ self-efficacy has a t-statistic value t= 22.339 with P= 0.000, showing a statistically significant coefficient because the P= 0.000, P < 0.05. This shows that the study variables were statistically significant because their P values were less than 0.05. On the other hand, the unstandardized coefficient measures the extent to which the independent variable can predict the dependent variable. From the table, when the independent variable is constant, students’ GPA was predicted to decrease by -9.9%. However, students’ self-efficacy is predicted to increase academic GPA by 0.59%. That is for any additional unit of students’ self-efficacy in learning, students’ GPA is predicted to increase by 0.59%. Based on the obtained results, it can be deduced that UniSZA undergraduate students are self-efficacious in their learning and their self-efficacy beliefs serve as a good predictor of their academic GPA.

Testing of Hypothesis Two
There is no significant relationship between self-regulated learning strategies and academic achievement among UniSZA undergraduate students

Table 6: Correlation between learning strategies and GPA

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>GPA</th>
<th>p</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning strategies</td>
<td>.632**</td>
<td>0.000</td>
<td>364</td>
</tr>
</tbody>
</table>

* p < .05. ** p < .01.

The above table shows the correlation between students’ use of learning strategies and their academic achievement. Academic achievement is defined as students GPA. The correlation value of 0.632 indicated that a high correlation exist between the use of self-regulated learning strategies and academic achievement. This is because the correlation value 0.632 is fairly close to 1. The closer the value is to 1, the stronger the relationship. Similarly, the two variables are statistically significant because the significance level is at 0.000 which is lesser than p = 0.05 while the N represent the study sample that is 364. This indicates that the higher the level of students’ use of learning strategies the higher will be their GPA grade and the lower the level of students’ use of learning strategies the lower will be the GPA grade.

Therefore, based on the correlation value of 0.632 which indicates a strong positive correlation between the two variables, the null hypothesis there is no significant relationship between self-regulated learning strategies and academic achievement among UniSZA undergraduates is rejected. The result revealed that a strong correlation exist between self-regulated learning strategies and students’ academic achievement.
Table 7: Regression Model Summary for Learning Strategies as predictor of GPA

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.632</td>
<td>.400</td>
<td>.398</td>
<td>.39586</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Learning Strategies

From the above table, R-value 0.632 represents the correlation between learning strategies and academic GPA. The R-square value of .400 represents the total variability of the dependent variable as explained by the independent variables. This shows that 40% of the total variability in Students’ GPA is explained by students’ use of learning strategies.

Table 8: ANOVA Summary of Regression Analysis for Learning Strategies as a Predictor of GPA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>37.742</td>
<td>1</td>
<td>37.742</td>
<td>240.850</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>56.762</td>
<td>362</td>
<td>.157</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.468</td>
<td>363</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05. ** p < .01.

The analysis of variance (ANOVA) table is used in measuring the fitness fit of the model regression. From the above table, the F-statistic value is 240.850 while the P value is 0.000, which indicates that the regression model fit the data at hand because the P value (sig.) is less than 0.05.

Table 9: Regression Coefficient for students’ use of Learning Strategies as predictor of GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.829</td>
<td>.153</td>
<td>5.405</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>.448</td>
<td>.029</td>
<td>.632</td>
<td>15.519</td>
<td>.000</td>
</tr>
</tbody>
</table>

Dependent variable: students GPA. * p < .05. ** p < .01

The regression coefficients table shows the effect of an independent variable over the dependent variable. Analysis of the coefficient table shows that when the independent variable is constant, the t-statistic = 5.405 with a value of P= 0.000, this shows that the two variables are statistically significant because P < 0.05. Similarly, students’ use of learning strategies is having a t-statistic value of 15.519 with P= 0.000, showing a statistically significant coefficient because the P= 0.000, P< 0.05. This shows that the study variables were statistically significant because their P values were less than 0.05. On the other hand, the unstandardized coefficient measures the extent to which the independent variable can predict the dependent
variable. From the table, when the independent variable is constant, students’ GPA was predicted to be 0.829%. However, learning strategies is predicted to increase academic GPA by 0.448%. That is for any additional unit of students’ use of learning strategies; academic GPA is predicted to rise by 0.448%. Based on the obtained results, it can be concluded that motivation plays a significant role in improving the academic achievement of UniSZA undergraduate students. Similarly, the findings revealed that motivation serve as a good predictor of academic GPA.

Results and Discussion
The aim of this study was to examine the correlation between self-regulated learning and academic achievement among UniSZA undergraduate students. The primary objectives of the study are to find out whether UniSZA undergraduate students are self-efficacious in their learning and how it affect their academic achievement, and to find out whether UniSZA undergraduate students make use of self-regulated learning strategies and how it affects their academic achievement. In the light of the stated objectives, three null hypothesis were raised to pilot the study. Findings from the study revealed that a strong positive correlation exist between self-regulated learning and academic achievement among UniSZA undergraduate students. This is because all the variables under study revealed a positive correlation.

The result relating to hypothesis one revealed that a strong relationship exist between students’ self-efficacy beliefs and academic achievement. The computed \( r = 0.761 \) at \( p = 0.000 \), \( p < 0.05 \) level of significance. Based on these values the result revealed a strong positive relationship between the two variables. For this reason, the null hypothesis that says there is no significant correlation between self-efficacy belief in self-regulated learning and academic achievement among UniSZA undergraduate students was rejected. Similarly, the study revealed that self-efficacy belief has a positive effect on academic achievement, and it serve as a good predictor of students’ academic GPA. The R-square on the model summary table shows that 58% of the total variability in students GPA is explained by the independent variable (self-efficacy belief). Additionally, based on the coefficient result, self-efficacy belief predicts 0.596% of students’ GPA. That is for any additional unit of self-efficacy belief, students’ GPA is predicted to increase by 0.596% holding all other factors constant. This shows that self-efficacy belief serves as a good predictor of students’ GPA. These findings are in line with the work of Bouffard et al. (2005) Students from the high efficacy condition performed better than students from the low efficacy group when trying to achieve learning goals.

The second research objective is to find out whether UniSZA undergraduate students make use of self-regulated learning strategies. To achieve this, a null hypothesis was raised that there is no significant relationship between self-regulated learning strategies and academic achievement among UniSZA undergraduate students. Findings from the study revealed that UniSZA undergraduate students make use of self-regulated learning strategies. The findings also indicated that a strong positive relationship exist between the use of learning strategies and students’ academic achievement based on the correlation value of \( r=0.668 \) at \( P=0.000 \) level of
significance P is < 0.01. This means that the more a student makes use of learning strategies the better will be his/her academic achievement (GPA). Similarly, results from the regression summary table, shows that 40% of the total variability of dependent variable (GPA) is explained by the independent variable (Learning Strategies). Additionally, learning strategies served as a good predictor of student academic achievement as it predicts 0.448% of academic GPA. Based on this value, for any increase in students use of learning strategies, students GPA is predicted to increase by 0.448%. For this reason, the null hypothesis that says there is no significant relationship between self-regulated learning strategies and academic achievement among UniSZA undergraduate students is hereby rejected. Conclusively, UniSZA undergraduate students make use of self-regulated learning strategies, and a positive relationship exist between self-regulated learning strategies and their academic achievement. These findings are in line with the work of Kosnin (2007) that higher achievers make use of self-regulated learning strategies more successfully than the lower achievers.

Conclusion
Conclusively, based on the findings of the study, a strong relationship exists between self-regulated learning and academic achievement of UniSZA undergraduate students. Additionally, students’ self-efficacy belief, and use of self-regulated learning strategies served as a good predictor of students’ academic achievement. Similarly, result from the regression coefficient tables shows that of all the three independent variables, students’ self-efficacy belief was having the highest predicting power accounting for 0.596% on students GPA, followed by motivation which accounts for 0.529% of students GPA. While the use of learning strategies was recorded to have the least predicting power on students’ GPA accounting for 0.448%.

Recommendations
I. Curriculum planners should design a curriculum that will encourage students’ autonomy in learning. This move will curtail the beliefs of most lecturers/teachers that they are the sole givers of information to learners.
II. Lecturers/teachers should try to adopt a student-centered classroom environment by encouraging students to participate actively in classroom activities. This will reduce learners anxiety in classroom activities because their participation has become a daily routine exercise.
III. Students should try to improve their self-efficacy beliefs by regularly engaging in highly demanding academic tasks. They should equally consider failure as a challenge and seek help from peers or teachers in the face of unresolved academic difficulties.

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