

# Students' Self-efficacy and Academic Performance at Makerere University

**Gerald Bwenvu**

East African School of Higher Education Studies and Development,  
College of Education and External Studies,  
Makerere University

## Abstract

The study aimed to establish the relationship between students' self-efficacy and academic performance at Makerere University. The study used a cross-sectional survey design to collect a large amount of data on students. The study used an online instrument to collect data from 117 College of Education and External Studies of Makerere University students. To establish the academic self-efficacy of students at Makerere University, data collected using an online survey were analysed using IBM SPSS version 21.0. Findings showed that the students' self-efficacy and academic performance mean scores are on the same level (high) and 2nd class upper, respectively. However, there is no significant relationship between students' academic self-efficacy and academic performance given the  $p > .05$  for all constructs (perceived control, competence, persistence and self-regulated learning). Even though the students have a high level of self-efficacy, it may not influence their academic performance in class. Also, this does not mean that the university should not give importance to developing the students' self-efficacy. The study concluded that the university should continue its academic programmes that will continuously develop the student's well-being in acquiring relevant experiences and skills in the University.

**Keywords:** Self-efficacy, Academic Performance, CGPA, University

## Introduction

The current focus has been put on self-efficacy as a powerful factor in enhancing academic performance among students. Self-efficacy is the belief in one's ability to succeed in a particular situation. Bandura (2012) defines self-efficacy as a belief in a person's ability to succeed in a particular situation or to accomplish a particular task. Beliefs in personal efficacy form an important element of human agency (Bandura, 1997). Bandura said that if people believe they are incapable of producing results, they will not try to make things happen.



East African School of Higher Education Studies &  
Development, Makerere University

Makerere Journal of Higher Education  
ISSN: 1816-6822 (Print); 2707-6113 (Online)  
12 (1) (2023) 101-117  
© The Author(s) 2023  
Reprints & permission: EASHESD  
<http://ajol.info/majohe>  
Conflict of interest: None  
Funding: None

Corresponding author. [bwenvugerald@gmail.com](mailto:bwenvugerald@gmail.com)

**Cite article as:** Bwenvu, G. (2023). Students' Self-efficacy and Academic Performance at Makerere University. *Makerere Journal of Higher Education*, 12 (1), 101-117.  
<https://dx.doi.org/10.4314/majohe.v12i1.7>

According to the general performance of Makerere University students in the graduation of 2021, out of 11,151 graduands, only 420 ( 3.8%) graduands managed to obtain a Cumulative Grade Point Average (CGPA) above 4.40 hence obtaining first-class degrees (Mak, 2021). GPAs (Grade Point Averages) express a student's academic strength in a single numerical value. At Makerere University, the GPA ranges from 0 to 5, with a CGPA ranging from 2.0 – 2.79 as a pass to 4.40 – 5.00 as a first-class degree. Most researchers worldwide used the GPA to measure student academic performance (Mushtaq & Khan, 2012; Galiher, 2006; Stephens & Schaban, 2002) because their main focus was student performance for the particular semester. Makerere University uses the CGPA mentioned above system where all the scores by the student for completed semester results are computed. Most studies (such as; Hayat et al., 2020; Oyuga et al., 2019; de Fátima Goulão, 2014; Meral et al., 2012;) show the relationship between students' self-efficacy and academic performance. Due to the low CGPA scores by the majority of the students, it has necessitated a study to establish the relationship between students' self-efficacy and their academic performance at Makerere University.

### **Review of Related Literature**

Many studies have established the effect of self-efficacy beliefs on students' performance (Mojavezi & Marzieh, 2012; Lin & Papageorgiou, 2016). The students' self-efficacy beliefs can affect their performance in several ways: students with firm self-efficacy beliefs are more likely to achieve in the lecture room than students with a low sense of self-efficacy. Furthermore, students with high self-efficacy are open to new approaches and can adopt new strategies during teaching and learning, which in turn supports their performance. This is well articulated in the study done in the USA by Candace (2013) on Self-efficacy and student learning: A case study of the implementation of common core states standards in mathematics in a parochial middle school. The setting and study participants were a purposeful sample. The researcher chose the study site, aware that the middle school was going to implement Common Core State Standards in Mathematics in 2012-2013. The study involved data collection and analyses of teacher perceptions and student performance in sixth and seventh-grade mathematics under the Common Core State Standards in Mathematics. The study used mainly qualitative research methods to collect data. Quantitative methods were included to support qualitative findings. The reviewed study to determine students' self-efficacy on their performance was done in the USA, a very developed country where learners and teachers are more exposed than Ugandan students. This difference in the levels of exposure may lead to a difference in the findings

In like manner, many studies have proved that self-efficacy or optimism (self-confidence) can positively impact many aspects, including students' academic performance (Bressler, Bressler, & Bressler, 2010). In this context, the results of a study conducted in Iran by Mojavezi and Marzieh (2012) on the influence of self-efficacy on students' motivation and performance affirmed it. In this sample, eighty senior university students were randomly selected from four different Iranian Universities. Self-efficacy and academic performance questionnaires for students were used to gather data. The study results showed that self-efficacy positively influences the motivation and achievement of the students. The study was able to reach a large group of participants because it employed a quantitative approach. Despite that, the study did not gain in-depth data because it lacked qualitative approaches. The study's findings reflected a strong correlation between self-efficacy and their students' academic performance.

Similarly, a study carried out in Spain by Regueiro, Blas, Valle, Pineiro and Cerzo (2014) on self-efficacy and its relationship with students' affective and motivational variables in higher education asserted that during the past few decades, researchers have proposed that self-efficacy

influences student achievement and motivation. Using cluster analysis, three distinctive profiles of teachers were generated: high, medium, and low self-efficacy. ANOVA results suggest that students with intermediate self-efficacy perception are more learning-oriented than students with high self-efficacy. Students overconfident in their learning capacity seem to engage less in studying to learn, are more indifferent to the subjects, and value the subject's contents less. The research was conducted in a university setting in Spain, a more developed country than Uganda. This certainly means that the findings of this study may not apply in an environment like that of Uganda, where Makerere university is located.

Regardless of domain, several types of research show that self-efficacy helps predict academic performance, and studies testing causal models highlight the important role of self-efficacy (Wan & Madya, 2017). Students with a high level of self-efficacy also possess a higher level of academic motivation. This is clearly articulated in a study done in South Korea by Kim and Seo (2018). They conducted a meta-analysis by synthesizing the results of 16 studies involving 4,130 students to explore whether or not the relationship between students' self-efficacy and academic performance was influenced by the scale used to measure students' efficacy and/or by the sub-factors of teacher efficacy length of teaching experience, location of the school, or the student's educational level. The results showed that the mean relationship between students' self-efficacy and academic performance was significant, but the effect size was small. The results also indicated that the relationship was influenced by some teacher efficacy measures and sub-factors and by the length of teaching experience. The reviewed study of Kim and Seo was a meta-analysis which synthesised the results of 16 studies to come up with the results, while the current study was an empirical research where data was picked from the respondents and then analysed to come up with the findings and conclusions.

Studies on perceived academic self-efficacy and student performance have confirmed that perceived self-efficacy impacts students' aspirations, levels of interest in academic pursuit, academic accomplishments and how well they prepare themselves for different occupational careers (Momanyi, Ogoma & Misigo, 2010). This is in line with a study carried out in Egypt by Abdelmotaleb and Sudhir (2013), which examined the mediating influence of academic self-efficacy on the link between perceived academic climate and academic performance among university students. The participants in the study consisted of 272 undergraduate students at the University of Assiut, Egypt. A scale to measure perceived academic climate was developed. The results demonstrated that perceived academic climate and self-efficacy significantly correlated with students' academic performance. Based on the findings, it was recommended that academic self-efficacy should be enhanced using counseling strategies. This study was carried out among undergraduate University students. However, it did not specify the category or courses being pursued, while the current study focused on students in the College of education, which makes the findings not possible to be transferred and generalized.

Self-efficacy beliefs also contribute to student academic performance because they influence thought, process, motivation, and behaviour (Bandura, 1997). Student academic performance can fluctuate due to varying beliefs in self-efficacy (Tenaw, 2013). The importance of self-efficacy as regards students' academic performance is well articulated in a study carried out in Nigeria by Garba, Munira and Nobaya (2017). In this research, they examined the rates of academic self-efficacy beliefs of students and the connection between academic self-efficacy and students' academic performance in one of the Nigerian Education Colleges. The questionnaire was used to collect data. The research involved a total sample of 339 respondents stratified and randomly selected from the College's five faculties. The results showed a significant positive association between beliefs in academic self-efficacy and students' academic performance. The reviewed

study used a self-administered instrument for data collection, whereas the current study used online survey questionnaires.

Equally important is a study carried out in Uganda by Mbabazi (2016), aimed at determining the influence of attitude and self-efficacy towards academic performance in Mathematics. It employed a causal correlational research design. The results showed a satisfactory level of students' academic performance. It is either positive or negative in terms of the level of attitude towards the subject of mathematics. As for the self-efficacy of the graduates, it is not high or low. When grouped according to gender, no significant difference was observed in attitude and self-efficacy. It was also found that only attitude towards mathematics significantly influenced academic performance. Students who have a positive attitude toward the subject tend to perform well. Therefore, it is possible to improve performance in mathematics by cultivating a positive attitude towards the subject. It is the responsibility of parents, lecturers and other stakeholders to support the students in this field. Mbabazi's checked research focused on only one subject, while the current study was conducted across the entire College of education and external studies among undergraduate students.

Further, a study done in Uganda by Acheng (2017) investigated the relationship between students' self-efficacy in mathematics and mathematics achievement having attitudes towards math. The statistical population of this study was the Islamic University Mbale students in the field of Chemistry engineering, who registered for basic mathematics in August- December 2015. In this research, the sample size was 142 people (101 male and 41 female) selected using the cluster sampling method. The AMOS software was used for the model test. The findings of the research showed that there is no relationship between attitude towards mathematics and educational mathematics achievement. There is a positive relationship between self-efficacy in mathematics and mathematics achievement. This study by Acheng was carried out only on mathematics students, making it different from the current study carried out among undergraduate students from different specialisations in the College of Education and External Studies, Makerere University secondary schools, which promotes a better generalisation.

### **Academic self-efficacy**

Academic self-efficacy is mainly about the student's perception of what they can or cannot do as opposed to individual resources. Students with high self-efficacy tend to choose challenging tasks, while students who cannot do well on their own often avoid them. Self-efficacy involves learning to control oneself, which helps the student to use his / her resources to plan, control and analyse the performance of tasks, activities and the preparation of learning products. (Schunk & Zimmerman, 1995). Students with high self-efficacy tend to earn better grades and show greater perseverance in engineering and science subjects than other students with low self-efficacy. In addition, high self-efficacy students use practical comprehension techniques when learning, scheduling their time and managing their efforts. In a study conducted in Lima, Peru, there was a positive and important relationship between academic self-efficacy and first-year university students' academic performance in Lima. (Alegre, 2014). There was also a positive association between self-regulated learning and academic performance.

According to a study that was done by Fenning and May (2013), "relationship results showed a significant, positive relationship between normal performance and high school GPA" (p.642). Also, because gifted students have better experiences with academics, these experiences increase self-confidence (Taylor, 2014). Taylor explains that student performance levels increase, and their independence and inner motivation translate into greater success in the classroom. For students

to maintain a high level of self-efficacy, they need to believe that they are equipped with the skills and abilities of a particular task (Clickenbeard, 2012, p. 625). Bandura et al. (1996) further state that “in the theory of social cognition, personal efficacy works within a broad network of social and psychological impacts where functional beliefs play an influential regulatory function” (p. 1207). The classroom environment plays a bigger role in education than most people imagine. The student environment, including teachers and peers, influences student learning. For example, if students’ peers do well in their studies and are recognised, some students will be more likely to believe in their abilities (Siegle & McCoach, 2007, p. 285). Students are easily influenced, and teachers can choose to have a positive impact on their lives (Taylor, 2014).

### **Research Methodology**

The study was conducted to establish the relationship between students’ self-efficacy and academic performance at Makerere University. The study employed a cross-sectional design which helps collect data in a snapshot. An online survey instrument was used to collect data from respondents. The survey questionnaire had items on a Likert scale ranging from strongly disagree to strongly agree for self-efficacy, whereas academic performance was measured based on the CGPA of students at Makerere University. Only the College of Education and External Studies undergraduate students participated in this survey because it is the largest College in the university; hence results can be generalized to other colleges that make up the university. A total of 117 students participated. This chosen sample size was consistent with Wiersema (2009), who points out that a sample should be sufficiently large to maintain the integrity and reliability of the data and indicates that a sample of 5% of the population is accurate. This study, therefore, used 9% to sample undergraduate students. The total sample size for this study was 117 out of 1236 students per the 2021 annual report of the College of Education and External Studies.

### **Findings and Discussion of the Study**

This online survey targeted Makerere university students, specifically from the College of Education and External Studies. A total of 117 students participated, and their demographic characteristics are indicated in the frequency Table 1.

**Table 1**

<i>Gender/sex</i>			
Variable		Frequency (n)	Percent (%)
Gender	Female	55	47.0
	Male	62	53.0
	Total	117	100.0
Course	BACE	71	60.7
	BED	41	35.0
	BYD	5	4.3
	Total	117	100.0
Gender	Female	55	47.0
	Male	62	53.0
	Total	117	100.0
Age	20-23years	87	74.4
	24-27years	27	23.1
	28-31years	2	1.7
	36 and above	1	.9
	Total	117	100.0

Source: *Field data (2021)*

The findings from Table 1 indicate that 62(53.0%) of the respondents were males, whereas 55(47.0%) were females. The majority, 71(60.7%), were pursuing a bachelor of adult and community education (BACE) course, followed by 41(35.0%) of the respondents who were pursuing a bachelor of education (BED) course and 5(4.3%) of the respondents were pursuing a bachelor of youth development work (BYD). The majority, 87(74.4%) of the respondents were aged between 20-23years, while 27(23.1%) of the respondents were aged between 24-27years, 2(1.7%) of the respondents were aged 28-31years and 1(0.9%) of the respondents was 36 and above years old.

### **Descriptive Statistics for Academic Self-Efficacy and Academic Performance**

To establish students' academic self-efficacy at Makerere University, data collected from an online survey were analysed using IBM SPSS version 21.0 to produce descriptive statistics based on the constructs from the validated scale by Dullas (2018). Dullas suggested constructs such as; perceived control, competence, persistence and self-regulated learning, citing (Bandura, 1997; Zimmerman & Shunk, 2008; Schell et al., 2015) as components of self-efficacy. The findings are shown in Table 2.

**Table 2**

<b>Descriptive Statistics for Perceived Control</b>			
Perceived control Items	N	Mean	SD
I can succeed because I can improve my study habit	117	4.13	1.08
I will be able to finish my university education because I am smart enough to do so	117	3.94	1.05
When I am called in class to give my opinion, I give the correct answer because I pay attention	117	3.68	.97
Passing a subject depends on how well I perform.	117	3.79	1.09
The future depends on what I do now.	117	4.22	1.15
My lecturers give me high marks because I deserve them.	117	3.70	1.18
Because I developed good study habits, I learned more.	117	4.13	.83
I can successfully control the outcome of my performance tasks, such as group presentations, oral works, multimedia presentations, and research projects.	117	3.92	.86
My lecturers see me as a good student.	117	3.78	.81
I believe that I can pass all subjects because I can do so.	117	4.15	.89
I believe that I can pass research because I can do so.	117	3.97	.91
I can successfully control the outcome of written work in my academics, such as quizzes, units, or long tests.	117	3.73	.92
<b>Grand mean</b>		<b>3.93</b>	

Source: *Survey data (2021)*

From the findings in Table 2, the grand mean is 3.93, which puts perceived control at a high rate. Findings from Table 2 indicate that majority of the respondents agreed ( $M = 4.13$ ,  $SD = 1.08$ ) that they can succeed because they know they can improve their study habits, and the majority of the respondents agreed ( $M = 3.94$ ,  $SD = 1.05$ ) that they will be able to finish university education because they are smart enough to do so. In addition, the majority of the respondents agreed ( $M = 3.68$ ,  $SD = .97$ ) that when called in class to give their opinion, they gave the correct answer because they paid attention, and they agreed ( $M = 3.79$ ,  $SD = 1.09$ ) that passing a subject depends on how well they perform. Furthermore, most respondents agreed ( $M = 4.22$ ,  $SD = 1.15$ ) that the future depends on what they do now, and they also agreed ( $M = 3.70$ ,  $SD = 1.18$ ) that their lecturers give them high marks because they deserve them. The majority of respondents agreed ( $M = 4.13$ ,  $SD = .83$ ) that they learn more because they develop good study habits. They agreed ( $M = 3.92$ ,  $SD = .86$ ) that they can successfully control the outcome of their performance tasks such as group presentations, oral works, multimedia presentations, and research projects, and they agreed ( $M = 3.78$ ,  $SD = .81$ ) that their lecturers see them as good students. Also, the majority of the respondents agreed ( $M = 4.15$ ,  $SD = .89$ ) that they believe they can pass all subjects because they can do so, and they agreed ( $M = 3.97$ ,  $SD = .91$ ) that they believe they can pass research because they can do so, and they also agreed ( $M = 3.73$ ,  $SD = .92$ ) that they can successfully control the outcome of written works in their academics such as quizzes, unit, or long test.

According to Musher-Eizenman and colleagues (2002), children who are more likely to control themselves do better in school than their peers who have low perceived control. Perceived control is a person's independent beliefs about the amount of control he has in the environment or the effect (Kondo, et al., 2021). Psychologists say that healthy and successful individuals often have a strong sense of control of their lives and the world around them. Perceived control reflects the degree to which an individual believes that a situation is controllable and that he or she has the skills necessary to bring about a desired (or avoid an undesired) outcome. This is an assumption that this study hinged on to establish the relationship between academic self-efficacy and academic performance.

**Table 3**

<i>Descriptive Statistics for Competence Items</i>			
Competence Items	N	Mean	SD
In whatever I do, I strive to attain excellence.	117	4.56	.74
I do things creatively, which helps me get good marks.	117	4.14	.81
I can perform very well in any field I get into.	117	3.84	.91
I do not feel anxious during exams because I know I can pass the test with high marks.	117	3.53	1.06
On the spot, recitations do not make me nervous because I can answer them well	117	3.17	1.00
My lecturers see me as one of the best students in class.	117	3.14	.96
I am convinced I can master the concepts and topics taught in my class.	117	3.87	.86
Compared with my classmates, I think that I am a better academic performer	117	3.24	1.00
I can do an excellent job in my subjects.	117	4.03	.89
I do not worry about the assigned task to me in class	117	3.55	1.21
I can get good grades in my written work, such as quizzes, units, or long test	117	3.94	.75
I can perform academic tasks such as group presentations, oral work, multimedia presentations, and research projects.	117	4.18	.65
I can pass my quarterly assessment, such as a periodical test.	117	3.97	.69
I am competent in using educational technologies	117	3.73	.88
<b>Grand mean</b>		<b>3.78</b>	

Source: *Survey data (2021)*

Generally, respondents indicated that they perceive themselves as competent to perform well, as indicated by the grand mean of 3.78, which is high. Academic competence is defined by DiPerna and Elliott (2002) as a multi-faceted construct that incorporates the skills, attitudes, and behaviours of students that contribute to classroom success. Findings from Table 3 indicate that majority of the respondents agreed ( $M = 4.56$ ,  $SD = .74$ ) that in whatever they do, they strive to attain excellence, and they agreed ( $M = 4.14$ ,  $SD = .81$ ) that they do things creatively and it helps them to get a good mark. The majority of the respondents further agreed ( $M = 3.84$ ,  $SD = .91$ ) that they can perform very well in any field they get into, and they also agreed ( $M = 3.53$ ,  $SD = 1.06$ ) that during exams, they do not feel anxious because they know they can pass the test



with high marks. In addition, the majority of the respondents agreed ( $M = 3.17$ ,  $SD = 1.00$ ) that on-the-spot recitations do not make them nervous because they can answer them well, and they also agreed ( $M = 4.14$ ,  $SD = .96$ ) that their lecturers see them as one of the best students in class.

Furthermore, the majority of the respondents agreed ( $M = 3.87$ ,  $SD = .86$ ) that they are convinced that they can master the concepts and topics taught in their class, though they are not sure ( $M = 3.24$ ,  $SD = 1.00$ ) whether they are better performers compared with their classmates. However, the majority agreed ( $M = 4.03$ ,  $SD = .89$ ) that they can do an excellent job in their subjects, and they also agreed ( $M = 3.55$ ,  $SD = 1.21$ ) that they do not worry about the assigned task to them in class. Also, the majority agreed ( $M = 3.94$ ,  $SD = .75$ ) that they can get good grades in their written work, such as quizzes, units, or long tests, and they also agreed ( $M = 4.18$ ,  $SD = .65$ ) that they can perform their tasks in their academics such as group presentation, oral work, multimedia presentations and research projects. In addition, most of the respondents agreed ( $M = 3.97$ ,  $SD = .69$ ) that they can pass their quarterly assessments, such as periodical tests, and they agreed ( $M = 3.73$ ,  $SD = .88$ ) that they are competent in using their educational technologies.

**Table 4**

<b>Descriptive Statistics for Persistent Items</b>			
Persistent Items	N	Mean	SD
Despite discouragement from peers, I continue to study hard.	117	4.47	.64
Despite pressures in university, I continue to maintain my good grades.	117	3.90	.84
I pull through even when others think there is no hope of passing a subject.	117	4.17	.67
When I am struggling to understand the lesson, I never stop trying.	117	4.06	.83
Regardless of obstacles, I keep moving toward my goal.	117	4.33	.74
If I do not give up, I can figure out difficult homework.	117	4.03	.79
I can get through even the most difficult subject if I try hard.	117	4.22	.72
I know how to help myself, and that is persistently working hard.	117	4.21	.73
I persistently solve problems concerning my academic subjects.	117	4.03	.84
I consistently figure out how to do the most difficult classwork.	117	3.97	.71
If I do not give up, I can do almost all the hard tasks in school.	117	4.10	.72
Even if there are many obstacles, I can learn them.	117	4.00	.83
I am persistent in passing all subjects.	117	4.03	.84
I work hard despite difficulties to get good grades in written work in my academics, such as quizzes, units, or long tests.	117	4.03	.71
Despite obstacles, I can accomplish my academic performance tasks such as group presentations, oral work, multimedia presentations, and research projects.	117	4.02	.78
<b>Grand mean</b>		<b>4.10</b>	

Source: *Survey data (2021)*

The grand mean for the persistence of the respondents is 4.10, which is high. Persistence can be considered a process that occurs throughout the year and results in a variety of behaviours (e.g., attendance of lectures and practical lessons, time spent reading during the week or on weekends), which is widely used in student literature and enrollment a year later in the same field of study (Neuvville et al., 2013).

Findings from Table 4 indicate that the majority of the respondents agreed ( $M = 4.47$ ,  $SD = .64$ ) that despite discouragements from peers, they continue to study hard, and they agreed ( $M = 3.90$ ,  $SD = .84$ ) that despite pressures in university, they continue to maintain their good grades. Also, the majority agreed ( $M = 4.17$ ,  $SD = .67$ ) that they manage to pull through even when others think there is no hope in passing a subject, and they agreed ( $M = 4.06$ ,  $SD = .83$ ) that when having a hard time understanding the lesson, they never stop trying. The majority of respondents agreed ( $M = 4.33$ ,  $SD = .74$ ) that regardless of obstacles, they keep moving towards their goal, and they agreed ( $M = 4.03$ ,  $SD = .79$ ) that they will not give up they can figure out difficult homework. In addition, the majority of the respondents agreed ( $M = 4.22$ ,  $SD = .72$ ) that if they try hard, they can get through even the most difficult subject, and they agreed ( $M = 4.21$ ,  $SD = .73$ ) that they know how to help themselves and that is persistently working hard.

Furthermore, most of the respondents agreed ( $M = 4.03$ ,  $SD = .84$ ) that they persistently solved problems regarding their academic subjects and agreed ( $M = 3.97$ ,  $SD = .71$ ) that they consistently figured out how to do the most difficult class works. The majority of the respondents agreed ( $M = 4.10$ ,  $SD = .72$ ) that they do not give up, they can do almost all hard tasks in school, and they agreed ( $M = 4.00$ ,  $SD = .83$ ) that even if there are many obstacles, they can learn it. The majority of the respondents agreed ( $M = 4.00$ ,  $SD = .84$ ) that they are persistent in passing subjects, and they agreed ( $M = 4.03$ ,  $SD = .71$ ) that they work hard despite difficulties in getting good grades in written work in their academics such as quizzes, unit or long tests. Additionally, most respondents agreed ( $M = 4.02$ ,  $SD = .78$ ) that despite obstacles, they can accomplish their academic performance tasks, such as group presentations, oral work, multimedia presentations, and research projects.

**Table 5**

<b>Descriptive Statistics for Self-regulated Learning Items</b>			
Self-regulated learning Items	N	Mean	SD
I can adjust whenever there are hard activities in class	117	3.90	.77
I can study on my own.	117	3.97	.75
Whenever there are suggestions regarding my negative study habits, I welcome them to change.	117	3.99	.78
I can monitor my learning development.	117	3.85	.81
I can submit my requirements before the deadlines.	117	3.87	.91
I organise my school works.	117	4.00	.71
I plan my school activities.	117	3.91	.67
I can remember the presented discussions in class.	117	3.83	.77
I can apply my lessons in textbooks.	117	3.77	.84
I can focus on studying.	117	4.13	.74

I arrange my study room to learn without distractions.	117	3.79	.92
I can motivate myself to do school works and assignments.	117	4.25	.69
I can motivate myself to learn.	117	4.35	.66
I am motivated to pass all subjects	117	4.15	.81
When I commit mistakes, I am willing to adjust my behaviour.	117	4.40	.67
I believe I perform at my best in written works in my academics, such as quizzes, units, or long tests.	117	4.05	.71
I organise and plan proficiently to succeed in my academic performance tasks, such as group presentations, oral work, multimedia presentations, and research projects.	117	3.9060	.80
I am motivated to excel in the quarterly assessment of my academics, such as periodical exams.	117	3.9915	.78
<b>Grand mean</b>		<b>4.01</b>	

Source: *Survey data (2021)*

The grand mean for self-regulated learning of the respondents is 4.10, which is high. Self-regulated learning is a rotating process in which the student plans a task, monitors his/her performance, and then reflects on the outcome. The cycle repeats as the student uses reflection to plan and prepare for the next activity. The process is not all-encompassing; it should be designed for each student and specific learning activities (Zimmerman, 2002).

The findings from Table 5 indicate that most respondents agreed ( $M = 3.90$ ,  $SD = .77$ ) that they can adjust whenever there are hard activities in class, and they agreed ( $M = 3.97$ ,  $SD = .75$ ) that they can study on their own. Also, the majority of the respondents agreed ( $M = 3.99$ ,  $SD = .78$ ) that whenever there are suggestions regarding their negative study habits, they welcome it to change, and they agreed ( $M = 3.85$ ,  $SD = .81$ ) that they monitor their learning development. Additionally, most respondents agreed ( $M = 3.87$ ,  $SD = .91$ ) that they could submit their requirements before the deadlines, and they agreed ( $M = 4.00$ ,  $SD = .71$ ) that they could organise their schoolwork works. The majority of respondents agreed ( $M = 3.91$ ,  $SD = .67$ ) that they can plan for their school activities, and they also agreed ( $M = 3.83$ ,  $SD = .77$ ) that they can remember the presented discussions in class. Furthermore, most respondents agreed ( $M = 3.77$ ,  $SD = .84$ ) that they could apply their lessons in the textbooks, and they agreed ( $M = 4.13$ ,  $SD = .74$ ) that they could focus on studying. In addition, most respondents agreed ( $M = 3.79$ ,  $SD = .92$ ) that they can arrange their study room to learn without distractions, and they also agreed ( $M = 4.25$ ,  $SD = .69$ ) that they can motivate themselves to do school works and assignments. Also, most respondents agreed ( $M = 4.35$ ,  $SD = .66$ ) that they can motivate themselves to learn and ( $M = 4.15$ ,  $SD = .81$ ) that they are motivated to pass all subjects. Additionally, the majority of respondents agreed ( $M = 4.40$ ,  $SD = .67$ ) that when they commit mistakes, they are willing to adjust their behaviour, and they agreed ( $M = 4.05$ ,  $SD = .71$ ) that they believe they perform at their best in written works in their academics such as quizzes, unit or long test. The majority of respondents agreed ( $M = 3.91$ ,  $SD = .80$ ) that they organise and plan proficiently to succeed in my academic performance tasks, such as group presentations, oral work, multimedia presentations, and research projects. They agreed ( $M = 3.99$ ,  $SD = .78$ ) that they are motivated to excel in their quarterly assessment of their academics, such as periodic exams.

### Academic Performance of Makerere University Students

Narad and Abdullah (2016) explain academic performance as acquired knowledge that is assessed by the instructor and/or educational goals set by students and instructors to be achieved over some time. Students' academic performance at Makerere University was measured based on the Cumulative Grade Point Average (CGPA) obtained by the students. Students mentioned their CGPA and were grouped into four (4) classes, as shown in Table 6.

**Table 6**

<i>Cumulative Grade Point Average(CGPA)</i>			
Grading	Frequency	Percent	M
2 - 2.79	1	.9	
2.80 - 3.59	13	11.1	4.25
3.60 - 4.39	59	50.4	
4.40 - 5.00	44	37.6	
Total	117	100.0	

Source: *Survey data (2021)*

Findings from Table 6 indicate that majority, 59 (50.4%) of the students, had a CGPA of 3.60 – 4.39, which is a second-class upper degree, followed by 44(37.6%) of the students who mentioned that they had obtained a CGPA of 4.40 -5.00 which is a first-class degree. Also, 13(11.1%) of the students mentioned that they had obtained a CGPA of 2.80 – 3.59, which is a second-class lower degree, while 1(.9%) of the students had obtained a CGPA of 2 – 2.79, which is a pass degree.

### Correlations for Students' Self-Efficacy and their Academic Performance

A Pearson correlation was run to establish the relationship between students' self-efficacy and academic performance, and the results are shown in Table 7.

**Table 7**

<b>Correlations</b>						
Variables		PC	CP	PS	SRL	CGPA
Perceived Control	Pearson Correlation	1	.467**	.362**	.312**	.023
	Sig. (2-tailed)		.000	.000	.001	.806
	N	117	117	117	117	117
Competence	Pearson Correlation	.467**	1	.176	.252**	.060
	Sig. (2-tailed)	.000		.057	.006	.523
	N	117	117	117	117	117
Persistence	Pearson Correlation	.362**	.176	1	.482**	.008
	Sig. (2-tailed)	.000	.057		.000	.934
	N	117	117	117	117	117
Self-regulated learning	Pearson Correlation	.312**	.252**	.482**	1	.004
	Sig. (2-tailed)	.001	.006	.000		.965
	N	117	117	117	117	117
CGPA	Pearson Correlation	.023	.060	.008	.004	1
	Sig. (2-tailed)	.806	.523	.934	.965	
	N	117	117	117	117	117

\*\* . Correlation is significant at the 0.01 level (2-tailed).

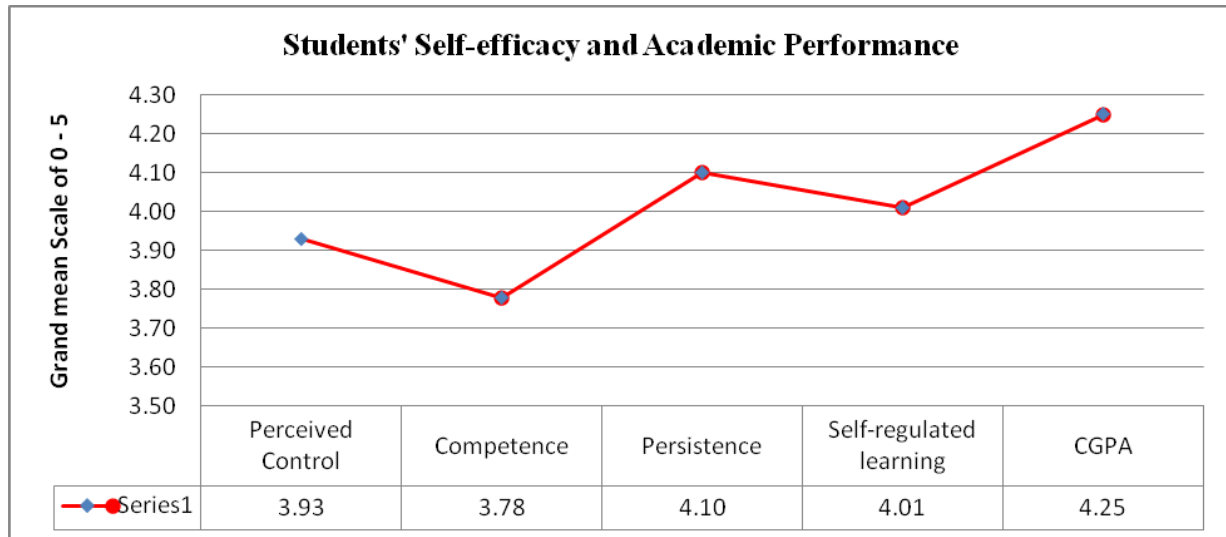
Findings indicate that there is no significant relationship between students' academic self-efficacy and academic performance given the  $\rho > .01$  for all constructs (perceived control, competence, persistence and self-regulated learning).

These findings agree with Tus (2019), who found that the computed linear regression analysis results revealed that self-efficacy does not significantly affect Senior High School students' academic performance. This suggests that even if the students have a high level of self-efficacy, it does not influence their academic performance in class. However, it does not mean that the school should not give importance to developing the students' self-efficacy (Tus, 2019). Tus suggested that the school should continue its academic programmes that will continuously develop students' well-being by acquiring relevant experiences and skills.

Likewise, this current study's findings should not discourage lecturers from developing students' self-efficacy at Makerere University but should also consider many other factors for academic performance. However, Mohsen (2017) conducted a study on university students and revealed

that academic self-efficacy positively and significantly affects their academic performance. Other studies have shown that academic self-efficacy considerably affects students' learning, motivation, and academic performance (Sadi & Uyar, 2013; Villavicencio & Bernardo, 2013; Ferla et al., 2009; Putwain et al., 2013; Doménech-Betoret et al., 2017).

**Comparison of Students' Academic Self-Efficacy and Academic Performance**



**Figure 1**

Findings in Figure 1 indicate that the students' self-efficacy and Academic performance mean scores are on the same level (high) and 2nd class upper, respectively. However, their correlations were insignificant because the  $\rho$ -values were greater than .01(2-tailed). The results being statistically insignificant does not disqualify our study but instead allows us to look at the effect size (correlation coefficient) of each construct understudy, backed by the descriptive statistics of each construct in a variable. According to Ellis (2010), the correlation coefficient is probably the best-known measure of effect size. Therefore the effect size for all constructs for the Independent variable (Academic self-efficacy) and academic variable (dependent variable) was very small, hence less significant.

**Conclusion**

Based on the findings from this study, the student's academic self-efficacy and academic performance at Makerere University are perceived to be high, between 3.93 and 4.25. However, there is no statistically significant relationship between students' academic self-efficacy and academic performance. Probably the data was inadequate to estimate the significance of testing the hypothesis.

However, even if the students have a high level of self-efficacy, it may not influence their academic performance in class. Also, this does not mean that the university should not give importance to developing the students' self-efficacy. It is suggested that the university continue its academic programmes that will continuously develop the student's well-being in acquiring relevant experiences and skills in the university.

## Recommendations

Based on the findings, the following recommendations have been put forward:

- 1) Since academic self-efficacy and performance are high at almost the same level, the university should motivate students to have higher self-efficacy and other factors that may affect their academic performance
- 2) A study involving all colleges for the university should be conducted using the actual records of CGPA for all students to have a genuine picture of their academic performance than relying on students' perceptions.
- 3) Other factors such as learning environment, teaching approaches and student motivation should be investigated in correlation to academic performance.

## References

- Abd-Elmotaleb & Sudhir, K. S (2013). The role of academic Self-Efficacy as Mediator Variable between perceived academic climate and academic performance *Journal of Education and Learning*; 2(3), 1927-5269.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control* (1st ed., p. 3). Worth Publishers.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents*, 5(1), 307-337.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*, 67(3), 1206-1222.
- Clinkenbeard, P. R. (2012). Motivation and gifted students: Implications of theory and research. *Psychology in the Schools*, 49(7), 622-630.
- de Fátima Goulão, M. (2014). The Relationship between Self-Efficacy and Academic Achievement in Adults' Learners. *Athens Journal of Education*, 1(3), 237-246.
- Doménech-Betoret, F., Abellán-Roselló, L., & Gómez-Artiga, A. (2017). Self-efficacy, satisfaction, and academic achievement: the mediator role of Students' expectancy-value beliefs. *Frontiers in psychology*, 8, 1193.
- Dullas, A. R. (2018, April). The development of academic self-efficacy scale for Filipino junior high school students. In *Frontiers in Education* (Vol. 3, p. 19). Frontiers.
- Ellis, P. D. (2010). *The essential guide to effect sizes: Statistical power, meta-analysis, and the interpretation of research results*. Cambridge university press.
- Fenning, B. E., & May, L. N. (2013). "Where there is a will, there is an A": examining the roles of self-efficacy and self-concept in college students' current educational attainment and career planning. *Social Psychology of Education*, 16(4), 635-650.
- Ferla, J., Valcke, M., & Cai, Y. (2009). Academic self-efficacy and academic self-concept: Reconsidering structural relationships. *Learning and individual differences*, 19(4), 499-505.

- Galiher, S. (2006). Understanding the effect of extracurricular involvement. *A Research Project Report M. Ed., Indiana University, South Bend.*
- Garba, A. K, Wan, M. B., Wan, J. & Nobaya, B. A. (2017). Relationship between academic self-efficacy believed of college students and academic performance. *Journal of Humanities and Social Science*, 22(1), 75-80.
- Hayat, A. A., Shateri, K., Amini, M., & Shokrpour, N. (2020). Relationships between academic self-efficacy, learning-related emotions, and metacognitive learning strategies with academic performance in medical students: a structural equation model. *BMC medical education*, 20(1), 1-11.
- Kim, K., & Seo, E. (2018). The relationship between self-efficacy and students' academic achievement: A meta-analysis. *Social Behaviour and Personality: An international journal*, 46(1), 22-27.
- Kondo, A., Abuliezi, R., Naruse, K., Oki, T., Niitsu, K., & Ezeonwu, M. C. (2021). Perceived Control, Preventative Health Behaviours, and the Mental Health of Nursing Students During the COVID-19 Pandemic: A Cross-Sectional Study. *INQUIRY: The Journal of Health Care Organisation, Provision, and Financing*, 58, 00469580211060279.
- Lin, G. & Papageorgiou, S. (2016). Exploring the relationship among confidence, learning and test performance within the English for teaching course. *Research Report ETS RR 16-22.*
- Mak. (2021). *71st Graduation Ceremony Statistics & Guidelines*. Makerere University News. Retrieved 27 October 2021, from <https://news.mak.ac.ug/2021/05/71st-graduation-ceremony-statistics-guidelines/>.
- Mbabazi, R. (2016). *The influence of attitude and self-efficacy towards academic performance in Mathematics*. Kampala: Unpublished M.A dissertation. Makerere University.
- Meral, M., Colak, E., & Zereyak, E. (2012). The relationship between self-efficacy and academic performance. *Procedia-Social and Behavioural Sciences*, 46, 1143-1146.
- Mohsen, A. S. (2017). The impact of self-esteem, academic self-efficacy and perceived stress on academic performance: A cross-sectional study of Saudi psychology students. *European Journal of Educational Sciences*, 4(3), 51-63.
- Mojavezi, A. & Marzieh, P. T. (2012). The impact of self-efficacy and students' motivation and achievement. *Journal of Theory and Practice in Language Studies*, 2(3) 483-491.
- Momany, J. M., Ogoma, S. O., & Misigo, B. L (2010). *Gender differences in self-efficacy and academic performance in science subjects among secondary school students in Lugari District*. Kenya. *Educ. j. behav. Sci*, 1(1), 62-77.
- Musher-Eizenman, D. R., Nesselroade, J. R., & Schmitz, B. (2002). Perceived control and academic performance: A comparison of high-and low-performing children on within-person change patterns. *International Journal of Behavioural Development*, 26(6), 540-547.
- Mushtaq, I., & Khan, S. N. (2012). Factors affecting students' academic performance. *Global journal of management and business research*, 12(9), 17-22.



- Narad, A., & Abdullah, B. (2016). Academic performance of senior secondary school students: Influence of parental encouragement and school environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 8(2), 12-19.
- Oyuga, P. A., Raburu, P. A., & Aloka, P. J. (2019). Relationship between Self-efficacy and Academic Performance among Orphaned Secondary School Students in Kenya.
- Putwain, D., Sander, P., & Larkin, D. (2013). Academic self-efficacy in study-related skills and behaviours: Relations with learning-related emotions and academic success. *British Journal of Educational Psychology*, 83(4), 633-650.
- Sadi, O., & Uyar, M. (2013). The relationship between self-efficacy, self-regulated learning strategies and achievement: A path model. *Journal of Baltic Science Education*, 12(1), 21.
- Stephens, L. J., & Schaben, L. A. (2002). The effect of interscholastic sports participation on academic achievement of middle-level school students. *Nassp Bulletin*, 86(630), 34-41.
- Syed, M. M., Akhter, N., Ibrahim, M. M., & Stanley, L. C. (2021). Persistence and Academic Performance of Medical Students in Online Learning Environment During the COVID-19 Pandemic Lockdown. *International Journal of Modern Education Studies*, 5(2).
- Taylor, E. E. (2014). The correlation between self-efficacy and the academic success of students.
- Tus, J. (2019). Self-Efficacy and Influence on the Academic Performance of the Students. *Journal of Global Research in Education and Social Science*, 13(6), 213-218.
- Villavicencio, F. T., & Bernardo, A. B. (2013). Negative emotions moderate the relationship between self-efficacy and achievement of Filipino students. *Psychological studies*, 58(3), 225-232.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64-70.