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Influence of Teacher's Self- Efficacy on the Quality of Learning: The Mediating Role of Mobile Learning Readiness among Criminology Students

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Abstract: The main focus of this research attempted to measure the mediating effect of M-learning readiness on the relationship between teacher`s self-efficacy and quality of learning. The study was conducted out using non-experimental quantitative research methodology employing the descriptive-correlational approach using Mean, Pearson r, Regression, and Sobel z-test as statistical tools. Mediation analysis was used as an approach in data analysis. This research used a mediation model to find and explain the mechanism or process that underlying an observed connection between independent variables which is the teacher`s self-efficacy and a dependent variable which is the quality of learning by introducing a third explanatory variable, known as a mediator variable which is the M-learning readiness. The questionnaires utilized in the research were customized and appropriate to the needs of the current study. The information was gathered using a stratified sampling approach, with 300 criminology students from a private institution serving as respondents. The study found a substantial association between teacher self-efficacy and student learning quality. Likewise, M-learning readiness also show significant role. It was also revealed that there is mediating effect of M-learning readiness of students on the relationship between teacher`s self-efficacy and quality of learning, partial mediation occurred on this study.

Keywords:- *M-learning readiness, teacher`s self-efficacy, quality of learning, correlational design, mediating effect, Philippines.*

I. INTRODUCTION

What do you mean by high-quality teaching and learning? Since a significant debate took place in higher education about what quality means roughly 20 years ago, opinions on what quality is and how it should be acquired continue to diverge. Quality in education may never have an answer that is obvious and unambiguous, but there seems to be a pragmatic agreement in practice that quality implies "fitness for purpose". Given the wide range of viewpoints and approaches to the concept of quality, the subject of what constitutes quality in education is still of critical importance. (Wittek& Habib, 2013).

Some students regard quality teaching as an outcome process, and others as an initiative. When it comes to quality teaching as an outcome process, it includes identifying gaps in performance, seeking new approaches to make improvements, analyzing the process of others, and following up by monitoring progress and reviewing the benefits as an outcome that helps indicate the level of students' satisfaction, such as effective curriculum design, collaborative learning and feedback, effective assessment of learning, and understanding of teaching methods; and an initiative that aims to enhance teamwork between teachers, goal-setting and course plans in order to improve student achievement (Ajang, 2016).

Whenever faced with increased accountability expectations, teachers' and students' professional development will be the most important factors in the success of school reform projects, especially as administrators fight to improve the present teaching workforce. Teacher efficacy, according to research, is an essential characteristic in teacher effectiveness that is consistently associated to teacher actions and student outcomes, including student achievement. According to this study, the framework for teacher professional development should incorporate self-efficacy as a theoretically sound focus of training designs targeted at enhancing teacher competence and, therefore, improving student outcomes as a theoretically good focus of training designs (Bates & Clark, (2003).

Finally, a greater and better amount of research is urgently necessary in order to improve the quality of undergraduate education while simultaneously increasing the number of students who complete their studies. In order to create better methods for schools to evaluate student learning, not just for critical thinking and writing, but also for other objectives of undergraduate education, more research must be done in this area.

II. MATERIALS AND METHODS

The study used the descriptive-correlational research design. Descriptive research describes the attitudes and behaviors observed during the investigation, while correlational research involves identifying statistical relationships between two variables (Vanderstoep& Johnston, 2009). A descriptive design is used when a researcher is just concerned with explaining the circumstance or subject under investigation. It is indeed a theory-based design process that is formed via the collection, analysis, and presentation of data. This enables a researcher to give out information into the why or how of study as well as the results obtained. The use of descriptive design aids in the understanding of the research's intention by others. It is possible to do exploratory research if the research problem is not well defined.

Also, co relational design is a non-experimental method for establishing a link between two closely related variables. When examining a connection between two distinct variables, no assumptions are made, and statistical analysis procedures determine the link between them. The goal of this research was to ascertain the degrees of instructor self-efficacy, M-learning preparedness, and student learning quality. Additionally, the mediating influence of M-learning preparation on the connection with teacher self-efficacy and student learning quality was examined.

To avoid responses based on speculations, the study employed the stratified sampling technique in determining the sampling population. The participants of the study are the criminology students of Saint Francis Xavier College including male and female from 1st year to 4th year level. The study excluded other students from different department since it focused only to the criminology students. This meant that the universal sample that utilized for this study which will include three hundred (300) criminology students of Saint Francis Xavier College.

Teacher`s Self-Efficacy Questionnaire developed by Guenzler, A. M. (2016) will be used which was modified to fit the study and subjected to the validation of the experts. The teacher's self-efficacy questionnaire had the two (2) indicators. First is the *Student Engagement* which refers to students' levels of interest, curiosity and enthusiasm while studying or being taught, as well as their level of drive to learn and grow in their education, are referred to as their level of engagement. Second is *Instructional strategies* refers that instructor utilize to aid students in evolving into identity, strategic learners are referred to as instructional strategies.

In evaluating teacher`s self-efficacy, the five orderable classifications of will be utilized in the following manner, together with their associated ranges of means and descriptions.:

Range of Means	**Descriptive Level**	**Interpretation**
4.20 – 5.00	Very High	This means that teacher`s self-efficacy is felt at all times
3.40 – 4.19	High	This means that teacher 's self-efficacy is oftentimes felt.
2.60 – 3.39	Moderate	This means that teacher 's self-efficacy is sometimes felt
1.80 – 2.59	Low	This means that teacher 's self-efficacy is seldom felt.
1.00 – 1.79	Very Low	This means teacher 's self-efficacy is never felt at all.

The questionnaire for quality of learning will be adapted from Chadha (2009). It was modified to fit in to the study and subjected to the validation of the experts.

In evaluating quality of learning, the following range of means with its descriptions will be used.

Range of Means	**Descriptive Level**	**Interpretation**
4.20 – 5.00	Very High	This means that quality of learning is affected at all times.
3.40 – 4.19	High	This means that quality of learning is oftentimes affected.
2.60 – 3.39	Moderate	This means that quality of learning is sometimes affected.
1.80 – 2.59	Low	This means that quality of learning is seldom affected.
1.00 – 1.79	Very Low	This means that quality of learning is never affected at all.

The M-learning readiness questionnaire will be adapted from Barnes, (2018). It was modified to fit in to the study and subjected to the validation of the experts.

In evaluating the M-learning readiness, the following range of means with its descriptions will be used.

Range of Means	**Descriptive Level Level**	**Interpretation**
4.20 – 5.00	Very High	This means that M-learning readiness is affected at all times.
3.40 – 4.19	High	This means that M-learning readiness is oftentimes affected.
2.60 – 3.39	Moderate	This means that M-learning readiness is sometimes affected.
1.80 – 2.59	Low	This means that M-learning readiness is seldom affected.
1.00 – 1.79	Very Low	This means that M-learning readiness is never affected at all.

The initial draft of the survey instrument will be given to the research advisor for comments, ideas, and recommendations on how to enhance its presentation and incorporate the changes. The final copy will be refined by a group of specialists. The final draft will include errors, comments, and recommendations offered by professional validators prior to the data collection. Before the administration of the questionnaires, they were piloted to 40 respondents and the reliability of the items was computed whose result shows an overall Cronbach's Alpha of 0.886 or high reliability. With the approval of the researcher's adviser, the questionnaires were administered to the identified respondents of the study.

In the collection of data, the researcher asked permission from the Schools President Roselyn P. Carlos, asking for her kind approval. Immediately after the approval of the President, the researcher submitted the endorsement letters to the Guidance Office and consequently ask permission from the Dean of the Criminal Justice Education to distribute research instrument to 300 criminology students.

Upon the approval, the researcher was personally visited the institution to orient student respondents about the study's objective and importance. The researcher was personally distributed and administered the research instrument on teacher's self-efficacy and quality of learning of student to ensure 100 percent retrieval of the questionnaire. The researcher conducted the survey not less than 1 week after he gather all the data, the researcher may easily collect the data, as well since the respondents are his students where he works for. Then, a Certificate of Appearance was secured from the Guidance Office and from the College Dean concerned to vouch that the researcher honestly collected the data from the research respondents of the study. Consequently, the data that gathered has been tallied, tabulated, analyzed and interpreted statistically.

III. RESULTS

A. Teacher`s Self-Efficacy

Illustrated in Table 1 are the views of respondents on their degree of teacher`s self-efficacy indicated a mean score that ranges from 4.21 to 4.16 with an overall mean score of 4.18, describe as *high* with an overall standard division of 0.49 which mean that teacher`s self-efficacy is oftentimes felt. Scrutinizing the individual results of the indicator revealed that *instructional strategies* have the highest mean score of 4.21, described as *very high* with a standard division of 0.52. *Student engagement* obtain the lowest mean of 4.16, described as *high* with a standard division of 0.52.

Indicators	SD	Mean	Descriptive Level
Student Engagement	0.52	4.16	High
Instructional Strategies	0.52	4.21	Very High
Overall	**0.49**	**4.18**	**High**

Table 1: Level of Teacher`s Self-Efficacy

B. Quality of Learning

Reflected in table 2 are the answers of respondents on their degree of quality of learning by the students indicated a mean score that ranges from 4.40 to 4.06 with total mean score of 4.26, describe as *very high* with a total standard division of 0.45, which means that quality of learning is always affected. A*cademic Learning Time* with a mean score of 4.24 and with a standard division of 0.54, *Learning Progress Scale* with a mean score of 4.40 and standard division of 0.58, *Student Satisfaction Scale* with a mean score of 4.33 and standard division of 0.52, *Global Course and Instructor Quality Scale* with a mean score of 4.28 and standard division of 0.58. Also, Activation *Scale* with a mean score of 4.26 and standard division of 0.57, *Demonstration Scale* with a mean score of 4.25 and standard division of 0.53, *Application Scale* with a mean score of 4.22 and standard division of 0.62 and *Integration Scale* with a mean score of 4.26 and standard division of 0.52. *Authentic problem scale* has a mean ration of 4.06 or *high with a standard division of 0.62,* got the lowest score.

Indicator	SD	Mean	Descriptive Level
Academic Learning Time	0.54	4.24	Very High
Learning Progress Scale	0.58	4.40	Very High
Student Satisfaction Scale	0.52	4.33	Very High
Global Course and Instructor Quality Scale	0.58	4.28	Very High
Authentic Problem Scale	0.62	4.06	High
Activation Scale	0.57	4.26	Very High
Demonstration Scale	0.53	4.25	Very High
Application Scale	0.62	4.22	Very High
Integration Scale	0.52	4.26	Very High
Overall	**0.45**	**4.26**	**Very High**

Table 2: Level of Quality of Learning

C. M-learning Readiness of Students

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Level of M-learning readiness is reflected in Table 3. It can be seen in the table that the total mean score is 4.04. The overall mean score was described to be a high level of M-learning readiness, which means that M-learning readiness are oftentimes affected to the students.

There were 30 items of M-learning readiness of students in this study. However, 27 items were described as high level, three items were described as very high level. *Connecting me to my teachers* got the highest mean rating of 4.38, *or very high* with a standard division of 0.69. *Playing an important role in my education* with a mean of 4.33, *or very high* and a standard division of 0.82.*Bringing new opportunities for my learning* with a mean rating of 4.28 with a standard division of 0.80. *Increasing my learning flexibility* with a mean rating of 4.12 with a standard division of 0.82, *Helping me improve my traditional literacy* with a mean score of 4.09 and standard division of 0.79.

In addition of the, *Allowing to improve my 21st century skills* with a mean rating of 4.13 with a standard division of 0.78, *Leveling the playing field for special education students* with a mean rating of 4.05 with a standard division of 0.82, *Enhancing my learning support from teachers* with a mean rating of 4.17 with a standard division of 0.78, *Helping me focus in my classes* with a mean grade of 3.87 with a standard division of 0.92, *Making me more motivated to learn* with a mean grade of 3.91 and standard division of 0.92, *Increasing my confidence to participate in every classroom discussion* with a mean rating of 3.94 with a standard division of 0.93.

However, *Making me more engaged in the classroom* with a mean grade of 3.90 with a standard division of 0.86, *Allowing me to own my learning pace and ways* with a mean score of 3.95 with a standard division of 0.84, *Allowing me to develop my personal activities* with a mean rating of 3.98 with a standard division of 0.86, *Improving my communication* with a mean grade of 4.10 with a standard division of 0.80, *Enhancing my ability to access knowledge source* with a mean rating of 4.18 with a standard division of 0.75.

In support, *Enhancing my attitude to want learning* with a mean rating of 3.93 with a standard division of 0.86, *Being well supported by my school's technical infrastructure and wireless network* with a mean rating of 3.79 with a standard division of 1.03, *Being conducive to me having my own technology* with a mean number of 3.91 with a standard division of 0.78, *Enhancing the job performance of my teacher* with a mean score of 4.00 with a standard division of 0.83, *Making my teacher more effective at work* with a mean value of 3.98 with a standard division of 0.87, *Enhancing my teacher's creativity and productivity* with a mean point of 4.07 with a standard division of 0.79

Similarly, *Making the teaching strategies of my teacher more interesting* with a mean rating of 4.07 with a standard division of 0.82, *Improving my learning as it allows me to access learning content anytime and anywhere* with a mean value of 4.10 with a standard division of 0.77, *Being useful in my field of study* with a mean score of 4.18 with a standard division of 0.76, *Being easy to use* with a mean value of 4.08 with a standard division of 0.80.

Lastly, *allowing me to interact with other people across the globe* with a mean rating of 4.04 with a standard division of 0.81, *Making learning easy and fun* with a mean grade of 3.90 with a standard division of 0.91, *Being cost effective* with a mean of 4.03 with a standard division of 0.80. *Being supported by my school administration* has a mean ration of 3.68 or *high* with a standard division of 1.13, got the lowest score.

Item	SD	Mean	Descriptive Level
Playing an important role in my education.	0.82	4.33	Very High
Bringing new opportunities for my learning.	0.80	4.28	Very High
Connecting me to my teachers.	0.69	4.38	Very High
Increasing my learning flexibility.	0.82	4.12	High
Helping me improve my traditional literacy.	0.79	4.09	High
Allowing to improve my 21st century skills.	0.78	4.13	High
Leveling the playing field for special education students.	0.82	4.05	High
Enhancing my learning support from teachers.	0.78	4.17	High
Helping me focus in my classes.	0.92	3.87	High
Making me more motivated to learn.	0.92	3.91	High
Increasing my confidence to participate in every classroom discussion.	0.93	3.94	High
Making me more engaged in the classroom	0.86	3.90	High
Allowing me to own my learning pace and ways	0.84	3.95	High
Allowing me to develop my personal activities.	0.86	3.98	High
Improving my communication.	0.80	4.10	High
Enhancing my ability to access knowledge source	0.75	4.18	High
Enhancing my attitude to want learning.	0.86	3.93	High

Being well supported by my school's technical infrastructure and wireless network	1.03	3.79	High
Being conducive to me having my own technology.	0.78	3.92	High
Being supported by my school administration	1.13	3.68	High
Enhancing the job performance of my teacher.	0.83	4.00	High
Making my teacher more effective at work.	0.87	3.98	High
Enhancing my teacher's creativity and productivity.	0.79	4.07	High
Making the teaching strategies of my teacher more interesting.	0.82	4.07	High
Improving my learning as it allows me to access learning content anytime and anywhere.	0.77	4.10	High
Being useful in my field of study.	0.76	4.18	High
Being easy to use.	0.80	4.08	High
Allowing me to interact with other people across the globe	0.81	4.04	High
Making learning easy and fun.	0.91	3.90	High
Being cost effective	0.80	4.03	High
Overall	**0.60**	**4.04**	**High**

Table 3:Level of M-learning Readiness of Students.

Self-efficacy	Quality of Learning									
	ACT	LPC	SSS	GIS	APS	ACS	DES	APS	INS	Overall
Student Engagement	.532** .000	.547** .000	.646** .000	.563** .000	.545** .000	.573** .000	.661** .000	.661** .000	.578** .000	.733** .000
Instruction Strategies	.545** .000	.508** .000	.658** .000	.593** .000	.595** .000	.666** .000	.716** .000	.656** .000	.601** .000	.765** .000
Overall	.573** .000	.561** .000	.693** .000	.615** .000	.606** .000	.659** .000	.732** .000	.700** .000	.626** .000	.797** .000

Table 4: Significance on the Relationship between Teacher Self-Efficacy and Quality of Learning

D. Significance on the Relation with Teacher`s Self-Efficacy and Quality of Learning

Data outputs of the link between tests between teacher`s self-efficacy and quality of learning are displayed in Table 4. The overall coefficient of correlation is .712 with a p-value of .000, described as a effective degree of correlation because the p-value is less than the value of 0.05 at the threshold of statistical significance in the study.

The indicators of teacher`s self-efficacy correlated with the indicators of quality of learning yielded the following result: *Academic learning time* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .537 at p-value ≤ 0.05. *Learning progress* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .561 at p-value ≤ 0.05. *Student satisfaction* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .693 at p-value ≤ 0.05. *Global course and instructor quality* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .615 at p-value ≤ 0.05.

M-Learning Readiness	Quality of Learning									
	ACT	LPC	SSS	GIS	APS	ACS	DES	APS	INS	Overall
Overall	.509** .000	.453** .000	.520** .000	.468** .000	.541** .000	.480** .000	.569** .000	.517** .000	.575** .000	.639** .000

Table 5: Significance on the connection with M-learning Readiness and Quality of Learning of Students

Furthermore, a*uthentic problems* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .606 at p-value ≤ 0.05. *Activation* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .659 at p-value ≤ 0.05. *Demonstration* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .732 at p-value ≤ 0.05. *Application* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .700 at p-value ≤ 0.05. *Integration* correlated with view of *student engagement* and *instructional strategies* yielded and overall r= .626 at p-value ≤ 0.05.

Moreover, the correlation test of the indicators of teacher`s self-efficacy and quality of learning yielded the following: *Student Engagement* linked with *academic learning time, global course and instructor quality, demonstration, academic learning time, authentic problems,*

application, student satisfaction, activation, integration with an overall r= .733 at p-value ≤ 0.05. *Instructional Strategies* linked with *academic learning time, global course and instructor quality, demonstration, academic learning time, authentic problems, application, student satisfaction, activation, integration* with an overall r= .765 at p-value ≤ 0.05.

ACT - academic learning time; **GIS** - global course and instructor quality scale; **DES** - demonstration scale; **LPC** - learning progress scale; **APS** - authentic problems scale; **APS** - application scale; **SSS** - Student satisfaction scale; **ACS** - activation scale; **INS** - integration scale.

E. Significance of the M-learning readiness and quality of learning

Table 5 contains the effective connection between M-learning readiness and quality of learning. Among the 9 indicators of quality of learning, all of these are efficiently related to M-learning readiness with a p-value ≤ 0.05. Results yielded an overall r= .639 with p-value ≤ .05, therefore M-learning readiness is significantly related to quality of learning.

ACT - academic learning time; **GIS** - global course and instructor quality scale; **DES** - demonstration scale; **LPC** - learning progress scale; **APS** - authentic problems scale; **APS** - application scale; **SSS** - Student satisfaction scale; **ACS** - activation scale; **INS** - integration scale.

F. Significance of the connection between Teacher`s Self-Efficacy and M-learning Readiness

Table 6shows the result of the significant correlation between teacher`s self-efficacy and M-learning readiness. The data in the table reveals that the indicators of *teacher`s self-efficacy* such as *student engagement* and *instructional strategies* is importantly correlate with M-learning readiness. As a result, teacher`s self-efficacy when correlated with M-learning readiness yielded an overall r = .536 with p-value ≤ .05. Therefore, the two variables are significantly related to each other.

Teacher Efficacy	M-Learning Readiness
Student Engagement	.480**
	.000
Instructional Strategies	.528**
	.000
Overall	.536**
	.000

Table 6: Significance on the relation with Teacher Self-Efficacy and M-learning Readiness

G. Mediation Analysis of the Three Variables

A linear regression technique was used to examine the data, and the results were used as input for a mediation study utilizing the route approach. In the mediation approach proposed by Baron and Kenny (2001), a third variable mediates the link between two variables by exerting a mediating influence on the first two variables. There are four requirements that must be completed in order for a third variable to operate as a mediator.

Table 5 categorizes them as stages 1 through 4 according to their sequence. In step 1, the independent variable (IV) of teacher self-efficacy was shown to be a significant predictor of the quality of student learning, which was the dependent variable of this research (DV). In step 2, the teacher's self-efficacy is shown to be a significant predictor of students' M-learning preparedness, which is the mediator variable (M). In step 3, students' M-learning preparedness is shown to be a strong predictor of the quality of their learning. It is necessary to do further mediation analysis by path analysis to determine the importance of the mediation impact since the three steps (paths a, b, and c) are significant. Fully mediated analysis will be accomplished when both independent and dependent variables' effects on each other become non-significant at the conclusion of the process of statistical analysis. It implies that the mediator variable is responsible for all of the effects.

As a result, even if the regression coefficient is significantly reduced at the final step but still significant, only partial mediation is acquired, which means that only a portion of the independent variable (teacher's self-efficacy) is linked either by mediator (M-learning readiness), while the remaining portions are either directly or indirectly mediated by variables not included in the model. In this particular instance, as revealed in step 4 (designated as c'), the effect of teacher self-efficacy on quality of teaching and learning was observed to reduce after being influenced by M-learning readiness, indicating that partial mediation occurred because the impact was discovered to be significant at the 0.05 level.

The findings of the calculation of the effect size in the mediation test, which was done between the three variables, are also shown in the diagram. A measure of the indirect route's influence on student learning quality, the impact size reflects much of the impact of teacher self-efficacy on student learning quality may be attributable to the indirect way. It is the beta of a teacher's self-efficacy in improving the quality of learning that has a total impact value of 0.735. In the regression, the beta of teacher's self-efficacy toward quality of learning was found to be 0.588, and M-learning readiness was included as a covariate in the regression. The indirect effect value of 0.660 represents the amount of the original beta between teacher's self-efficacy and quality of learning that has been redirected and via M-learning readiness to quality of learning (a * b, in which "a" refers to the path between TSe and MLR and "b" refers to the path between MLR and QoL), as calculated in the original beta equation.

It is possible to calculate the ratio index by reducing the indirect influence by the overall effect; for example, 0.660 divided by 0.735 = 0.898. It appears that approximately 89.8 percent of the total effect of teacher self-efficacy on quality of learning passes through the M-learning readiness variable,

and approximately 10.2 percent of the overall impact would either be immediate or mediated by other variables that are not included in model, according to the findings.

Step	Path	Beta (Unstandardized)	Standard Error	Beta (Standardized)
Step 1	c	.735	.035	.797
Step 2	a	.660	.060	.536
Step 3	b	.223	.028	.297
Step 4	c’	.588	.035	.637

Table 7 : Regression results on the variables in the four criteria of the presence of mediating effect

IV. DISCUSSION

A. Level of Teacher`s Self-Efficacy

The high level of teacher`s self-efficacy is due to the high rating given by the respondents on student engagement. These indicators registered an overall high rating which was the product of the high score rated by the students.

The result shows that desirable teacher`s self-efficacy was always manifested**.** Student engagement tells us the degree that while educating or being taught, students demonstrate a degree of motivation that enables them to learn and advance in their educational endeavors. Instructional Strategies provides us with information on the strategies that instructors employ to help pupils become autonomous, strategic learners. This means that there is no conflict arising between them or if there is any, it is settled immediately.

Consequently, it is as a result of this that it is necessary to comprehend student behavior and teacher self-efficacy in the classroom, in order to fulfill the academic and behavioral expectations of the future global economy. There’s a need to understand how student behavior impacts a teacher's self-efficacy to fulfill the academic and behavioral expectations of the future. (Medina, 2017).

As a result, teacher self-efficacy has an impact on teacher classroom practice, job happiness, and overall career length. It indicates that a teacher's views about his or her competence in the classroom may have a greater impact on classroom practices than the subject knowledge gained throughout the preparation process (Mongillo, 2011).

B. Level of Quality of Learning

The level of quality of learning obtained a very high level. As indicated by this indicator, students are willing to try new things and take risks when applying strategies to solve problems in both traditional and creative ideas, are involved in the design of their task and facilitate the learning process, think in their own capacity to study, and are ready to communicate and reflect on their own learning.

Moreover, students make connections between what they have learned or experienced in the past and what they will learn or do in the future; They also are exposed to distinct instances of what they will study or accomplish in the hereafter; and that they are able can apply that knowledge with their own personal life when they have completed their studies. Additionally, teachers must satisfy a set of criteria and adhere to a set of procedures that will help them be more successful in the classroom. (Chadha, 2009).

Lastly, it was discovered that the students were substantially pleased when they were engaged in their studies and that it was tough for them to separate themselves from school. Knowing that students are committed to improve their performance via a variety of methods, I am confident in my ability to help them. (Gittens, 2018).

C. Level of M-learning Readiness

The overall result of a *high* level of M-learning readiness is as a result of the very high level provided by respondents for playing a vital part in my educational work, bringing new opportunities for my learning and connecting me to my teachers. This suggests that the students' adoption of M-learning preparedness is on a somewhat positive trajectory.

To discuss in details, it could be argued that educational institutions and administrators will be required to provide the necessary support for mobile technologies, pedagogical approaches, infrastructure, and wireless networking in order for effective implementation of M-learning to take place throughout the school system. With mobile technology, many students are ready to use M-learning in order to gain information, motivate, and engage the various kinds of learning in the classroom, regardless of whether a conventional or blended learning model is being used in their schools. (Barnes, 2018).

Moreover, because mobile technology is designed to accommodate people's increasingly mobile lifestyles, mobility is often regarded as a key benefit of mobile learning that distinguishes it from conventional education methods such as computer-based learning. Learners may get access to education without being restricted by geography or time constraints by using mobile technologies. (Liu, Han & Li, 2010).

D. Correlation Between Measures

The test on relationship of the study confirmed that there is a link between the levels of teacher`s self-efficacy and quality of learning. As a result, the null hypothesis is rejected. The findings suggested that the self-efficacy of the instructor is associated with the quality of learning. This implies that the quality of learning has an impact on the teacher's sense of self-efficacy.

The result agrees in the study of Coronado, 2016 which claims that "Teacher's self-efficacy for teaching—their views of their own skills to promote students' learning and engagement—has proven to be an essential teacher attribute frequently associated with good student and teacher results".

Lastly, this result is consistent with the findings of De La Rosa (2017), It is important to provide students with feedback that informs them of their progress, expose students to understand environments that promote and enhance their life experience in highlighting the ways that make clear theoretical gaps, and instill students' confidence that this is possible to win in a criminology class, among other things.

In this study of mediation, the first step of Baron and Kenny's (1986) procedure that there is a connection between the independent variable, teacher`s self-efficacy to the dependent variable, quality of learning was established.

The results of the overall analysis of the association between variables indicated that there is a statistically significant link between M-learning preparedness and the quality of student learning. As a result, the null hypothesis is ruled out. According to the findings, M-learning readiness is associated with higher levels of learning quality. This implies that students' M-learning readiness has an impact on the overall quality of their learning.

This result supports the study of Andersen, (2019), as shown by the fact of mobile learning is described as learning that is facilitated by mobile technologies, with the elements of mobility and ubiquity introduced, allowing learners to engage with m-learning applications, educational content and materials, and the learning community at any time, from any location, and while on the go.

The result also supports the study of Barnes, (2016) which claims that M-learning takes place via social and content exchanges, allowing students to establish connections while studying whenever and wherever they want to. For M-learning to be sustainable, educational institutions and administrators will need to make substantial time and financial expenditures in mobile technology, initiative programs and the professional development of instructors in order to support it. Lastly, the result supports the study of Al-Shahrani, (2016) According to him, student acceptance develops at various rates when new technology is introduced. If we are serious about incorporating M-learning into our educational processes, it is critical that we ensure that our students are comfortable with and capable of integrating M-learning into their learning environments.

The test on relationship of the study showed that there is a huge relation with the levels of teacher`s self-efficacy and M-learning readiness. As a result, the null hypothesis is ruled out. The findings suggested that a teacher's self-efficacy is associated with their preparation for M-learning. This means that M-learning readiness does affect the teacher`s self-efficacy.

The result supports the study of Triplett, (2018) which states that advantages of M-learning include cost reductions found in cloud-based services, quick feedback, access to rich media and real-time contact with many students backed by social networks or apps that enable anytime, anywhere, anytime learning. communication was out that students increasingly demand educational institutions to correspond with their characteristics, such as the frequency with which they use their smartphones and tablets, propensity for multitasking and students' perceived deep and intimate connection with their mobile devices.

E. Mediating Effect of M-Learning Readiness of Students on the Relationship between Teacher`s Self-Efficacy and Quality of Learning

The aim of this research was to make a contribution to the literature by identifying a possible indirectly, intervening variables for the association between teacher self-efficacy and the quality of learning in the classroom. Distinctively, M-learning readiness were studied as a possible mediating concept to explain the way in which a teacher's self-efficacy impacts the quality of student learning. In this study, while no complete mediation was observed, substantial and significant direct effects were discovered, which may aid in the improvement of current studies on teacher self-efficacy and the quality of learning in schools.

Subsequently, these authors' studies focus on the relation between teacher self-efficacy and learning quality they are relevant to the findings of the study by Roche (2013) which found that M-learning readiness can be used as a mediator to improve teacher self-efficacy, which was discovered to be critical to the overall success of the institution and lead to exceptional results. Current research shows that M-learning readiness is an important and positive partial mediator of teacher self-efficacy and student learning quality, which fulfilled the criteria set out in the study conducted by Baron and Kenny (in 1986).

The findings demonstrated that a teacher's self-efficacy is a strong predictor of the quality of learning and the propensity to engage in M-learning. Furthermore, students' M-learning preparedness has a major impact on the overall quality of their learning. The findings revealed that M-learning preparedness has a mediating influence on the self-efficacy of teachers as well as the quality of learning for students. This suggests that M-learning preparedness has an impact on the teacher's self-efficacy, which in turn has an impact on the quality of learning for students. As a result of this intervention, there was a convergence in the relationship between teacher self-efficacy and learning quality. This suggests that by using M-learning readiness styles, instructors will be able to produce high levels of teacher self-efficacy, which will translate into high levels of student learning quality.

The result agrees the theory of Baron, et al (1986) which states that a mediator causes the outcome and not vice versa. It has been observed that the effect of teacher`s self-efficacy to quality of learning is through M-learning readiness but does not reverse the direction.

V. CONCLUSION

Finally, conclusions are reached in this part after taking into account the outcome of the research. The outcomes of this research unequivocally support the hypotheses concerning the mediating influence of students' M-learning readiness on the association between teacher self-efficacy and the quality of learning. The findings are interpreted as a general acceptance of this assumption. Hence, the findings provide evidence that the consideration of teacher`s self-efficacy is relevant for research on quality of learning of

students; teacher`s self-efficacy and M-learning readiness; and M-learning readiness and quality of learning. The respondents are agreeable with the idea that teacher`s self-efficacy is important in quality of learning. In effect, the respondents exhibit a high level of teacher`s self-efficacy, very high level on quality of learning and high level on M-learning readiness.

The findings were in support of the anchored theory self-efficacy propounded by Albert Bandura (1986), Social Cognitive Theory of Maddux (1993), and lastly, the Self-Determination Theory by Edward Deci and Richard Ryan (1985). For this reason, M-learning readiness is significantly mediates the link between teacher`s self-efficacy and quality of learning. The theory cited above discuss the association among the variables used in the study. Thus, these theories are contradicted in the present investigation since it deals with the mediating effect of M-learning readiness of students on the relation between teacher`s self-efficacy and quality of learning.

REFERENCES

[1.] Ajang, J. A. (2016). The impacts of quality teaching on student satisfaction in higher education in south sudan (Order No. 10143305). Available from ProQuest Central. (1824678313). Retrieved from https://search.proquest.com/docview/1824678313?accountid=31259

[2.] Al-Shahrani, H. (2016). Investigating the determinants of mobile learning acceptance in higher education in saudiarabia (Order No. 10123528). Available from ProQuest Central. (1795554296). Retrieved from https://search.proquest.com/docview/1795554296?accountid=31259

[3.] Andersen, K. (2019). Perceived user experience associated with m-learning: An exploratory case study (Order No. 27671132). Available from ProQuest Central. (2338040600). Retrieved from https://search.proquest.com/docview/2338040600?accountid=31259

[4.] Aydemir, Hasan & Duran, Munise & Kapidere, Metin & Kaleci, Devkan & Aksoy, Numan. (2014). Self-efficacy of Teacher Candidates Intended Teaching Profession. Procedia - Social and Behavioral Sciences. 152. 161-166. 10.1016/j.sbspro.2014.09.174.

[5.] Barnes, J. A., Jr. (2018). Teachers' perceptions of implementing M-learning using pedagogical approaches (Order No. 10787846). Available from ProQuest Central. (2051358066). Retrieved from https://search.proquest.com/docview/2051358066?accountid=31259

[6.] Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of personality and social psychology, 51(6), 1173.

[7.] Berry, B. (2018). A quantitative study of optimistic explanatory style as a theoretical pathway to teacher self-efficacy (Order No. 10975924). Available from ProQuest Central. (2134107719). Retrieved from https://search.proquest.com/docview/2134107719?accountid=31259

[8.] Carver, E. H. (2015). The use of peer video via M-learning to teach essential nursing skills (Order No. 10023279). Available from ProQuest Central. (1768694407). Retrieved from https://search.proquest.com/docview/1768694407?accountid=31259

[9.] Chadha, R. (2009). Dependability of college student ratings of teaching and learning quality (Order No. 3380155). Available from ProQuest Central. (304899597). Retrieved from https://search.proquest.com/docview/304899597?accountid=31259

[10.] Charkhabi, Morteza & Abarghuei, Mohsen & Hayati, David. (2013). The association of academic burnout with self-efficacy and quality of learning experience among Iranian students. Springer Plus. 2. 677. 10.1186/2193-1801-2-677.

[11.] Cheon, J., Lee, S., Crooks, S. M., & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. Computers & education, 59(3), 1054-1064.

[12.] Clark, N. B., & Bates, R. (2003). Self-Efficacy Beliefs and Teacher Effectiveness: Implications for Professional Development.

[13.] Coronado, D. M. (2016). Teacher's sense of self efficacy and grit and its relationship to student achievement (Order No. 10152948). Available from Pro Quest Central. (1835845591). Retrieved from https://search.proquest.com/docview/1835845591?accountid=31259

[14.] Damon, P. J. (2016). Professional relationships: An interpretive phenomenological analysis of professional development experiences and teacher's self-efficacy (Order No. 10194283). Available from ProQuest Central. (1861964630). Retrieved from https://search.proquest.com/docview/1861964630?accountid=31259

[15.] Douglas, C. B. (2011). The relationship between faculty gender, student understanding of biblical gender roles, and perceived quality of learning experience in southern baptist affiliated seminaries (Order No. 3454185). Available from ProQuest Central. (868502652). Retrieved from https://search.proquest.com/docview/868502652?accountid=31259

[16.] Dungy, K. (2018). M-learning: A qualitative study of characteristics that lead to Knowledge/Skill attainment using mobile devices (Order No. 10973161). Available from ProQuest Central. (2130169542). Retrieved from https://search.proquest.com/docview/2130169542?accountid=31259

[17.] Gao, Y. (2011). Secondary history/social studies teachers' self-efficacy regarding geography teaching (Order No. 3487455). Available from ProQuest Central. (913076080). Retrieved from https://search.proquest.com/docview/913076080?accountid=31259

[18.] Gittens, N. (2018). Leadership practices that affect student achievement: Facilitating high-quality learning experiences for students (Order No. 10788013). Available from ProQuest Central. (2037183606). Retrieved from

https://search.proquest.com/docview/2037183606?accountid=31259

[19.] Guenzler, A. M. (2016). Teacher leadership and teacher efficacy: A correlational study comparing teacher perceptions of leadership and efficacy and teacher evaluation scores from the north Carolina educator evaluation system (Order No. 10119014). Available from ProQuest Central. (1805168678). Retrieved from https://search.proquest.com/docview/1805168678?accountid=31259

[20.] Guo, Ying & Dynia, Jaclyn & Pelatti, Christina & Justice, Laura. (2014). Self-efficacy of early childhood special education teachers: Links to classroom quality and children's learning for children with language impairment. Teaching and Teacher Education. 39. 12–21. 10.1016/j.tate.2013.11.005.

[21.] Hamann, D. (2015). The construction and validation of an M-learning framework for online and blended learning environments (Order No. 3700118). Available from ProQuest Central. (1680014899). Retrieved from https://search.proquest.com/docview/1680014899?accountid=31259

[22.] Hassen, A. M. (2016). A comprehensive framework for design and evaluation of M-learning applications (Order No. 10100924). Available from ProQuest Central. (1785357921). Retrieved from https://search.proquest.com/docview/1785357921?accountid=31259

[23.] Kailin, D. C. (2002). Quality of learning in primary care: A social systems inquiry (Order No. 3056557). Available from ProQuest Central. (275790252). Retrieved from https://search.proquest.com/docview/275790252?accountid=31259

[24.] Kerr, M. B. (2013). Teacher stress and administrative support as predictors of teachers' self-efficacy for special education teachers in California's central valley (Order No. 3567289). Available from ProQuest Central. (1420345326). Retrieved from https://search.proquest.com/docview/1420345326?accountid=31259

[25.] Liu, Y., Han, S., & Li, H. (2010). Understanding the factors driving m-learning adoption: A literature review. Campus - Wide Information Systems, 27(4), 210-226. doi:http://dx.doi.org/10.1108/10650741011073761

[26.] Medina, L. G. (2017). The effects classroom experiences and student conduct have on a teacher's self-efficacy in schools with positive behavior interventions and supports (PBIS) (Order No. 10274447). Available from ProQuest Central. (1895098612). Retrieved from https://search.proquest.com/docview/1895098612?accountid=31259

[27.] Messinger, J. (2011). M-learning: An exploration of the attitudes and perceptions of high school students versus teachers regarding the current and future use of mobile devices for learning (Order No. 3487951). Available from ProQuest Central. (914201229). Retrieved from https://search.proquest.com/docview/914201229?accountid=31259

[28.] Mongillo, M. B. (2011). Exploring the development of novice teachers' self-efficacy (Order No. 3480845). Available from ProQuest Central. (902585583). Retrieved from https://search.proquest.com/docview/902585583?accountid=31259

[29.] Mulder, S. L. (2010). Exploring the relationships between teachers' self-efficacy and teachers' multicultural self-efficacy (Order No. 3492794). Available from ProQuest Central. (919062648). Retrieved from https://search.proquest.com/docview/919062648?accountid=31259

[30.] O'Toole, M. (2002, Jan). No free lunch on the internet: Technology and quality learning [quality learning symposium]. Teach, , 23-25. Retrieved from https://www.proquest.com/magazines/no-free-lunch-on-internet-technology-quality/docview/214500139/se-2?accountid=31259

[31.] Rinelli, K. (2013). Overcoming K–12 teacher resistance to technology and learning using M-learning (Order No. 3558879). Available from ProQuest Central. (1352758473). Retrieved from https://search.proquest.com/docview/1352758473?accountid=31259

[32.] Roche, A. J. (2013). M-learning: A psychometric study of the mobile learning perception scale and the relationships between teachers' perceptions and school Level/Technology skill level (Order No. 3589927). Available from ProQuest Central. (1430897145). Retrieved from https://search.proquest.com/docview/1430897145?accountid=31259

[33.] Sherley, B. (2015). Investigating the relationship between a school principal's transformational leadership style and a teacher's sense of self-efficacy (Order No. 3673029). Available from ProQuest Central. (1651954180). Retrieved from https://search.proquest.com/docview/1651954180?accountid=31259

[34.] Skaalvik, E. M., &Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. Teaching and teacher education, 26(4), 1059-1069.

[35.] Strachan, S. M. (2005). An identity theory and social cognitive theory examination of the role of identity in health behaviour and behavioural regulation (Order No. NR12163). Available from ProQuest Central. (305392837). Retrieved from https://www.proquest.com/dissertations-theses/identity-theory-social-cognitive-examination-role/docview/305392837/se-2?accountid=31259

[36.] Sweet, S. N. (2011). Self-determination theory and self-efficacy theory: Can they work together to predict physical activity in cardiac rehabilitation? (Order No. NR98228). Available from ProQuest Central. (1399182450). Retrieved from https://www.proquest.com/dissertations-theses/self-determination-theory-efficacy-can-they-work/docview/1399182450/se-2?accountid=31259

[37.] Tobery-Nystrom, J. (2011). An exploration of self-efficacy in a teacher-educator's practice (Order No. 3434607). Available from ProQuest Central. (847384999). Retrieved from https://search.proquest.com/docview/847384999?accountid=31259

[38.] Triplett, J. (2018). Student attitudes regarding M-learning in higher education: A case study of mobile device use (Order No. 10830505). Available from ProQuest Central. (2063405386). Retrieved from https://search.proquest.com/docview/2063405386?accountid=31259
[39.] Urrea, L. M. (2010). K–6 teacher's self-efficacy: Their past experiences with their own K–12 teachers as a source of influence (Order No. 3422100). Available from ProQuest Central. (755303507). Retrieved from https://search.proquest.com/docview/755303507?accountid=31259
[40.] Wittek, A. L., & Habib, L. (2013). Quality teaching and learning as practice within different disciplinary discourses.