

# INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY: APPLIED BUSINESS AND EDUCATION RESEARCH

2021, Vol. 2, No. 11, 1043 – 1060

<http://dx.doi.org/10.11594/ijmaber.02.11.06>

## Research Article

### Effectiviness of Blended Learning Modules as Correlates of Self-Efficacy of ALS Students: Basis for an Action Plan

Dennis B. Anduyan\*

#### Article history:

Submission November 2021

Revised November 2021

Accepted November 2021

#### \*Corresponding author:

E-mail:

[dennis.anduyan@deped.gov.ph](mailto:dennis.anduyan@deped.gov.ph)

## ABSTRACT

The study determined the effectiveness of blended learning modules as correlates to students' self-efficacy among students in the Alternative Learning Systems in Tagum, Davao del Norte during the second quarter of 2021. Findings will serve as bases for a proposed action plan. The researcher utilized quantitative, descriptive-correlational and predictive designs among 211 students in the Alternative Learning System in different centers in the Central Cluster in Tagum, Davao del Norte selected through random sampling. The researcher used adapted-and-modified questionnaires from the following: "Evaluating the Quality, Usability, and Potential Effectiveness of Online Learning Modules: A Case Study of Teaching with Technology Grant Recipients at the University of Tennessee, Knoxville" from Goode (2003) and "Self-Efficacy as an Engaged Learner" from Schunk and Mullen (2017). The researcher utilized mean and standard deviation, Pearson-r, and linear regression for data treatment. The effectiveness of blended learning module is high. Moreover, the student's self-efficacy is also high. Both are manifested most of the time. There is a significant relationship between effectiveness of blended learning and student's self-efficacy. Student's self-efficacy is influenced on the following domains of effectiveness of blended learning modules: quality of content, usability, and potential tool for effective learning. The researcher recommends seminar and training for teachers particularly on creating and enhancing contents in the blended learning modality to improve the student's self-efficacy.

**Keywords:** *effectiveness of blended learning modules, self-efficacy, Tagum, Davao del Norte.*

## Introduction

The global pandemic situation caused by coronavirus disease in 2019 has led to a state of population contraction, which has led to increased stress among students. In the

Philippines, the creation of modules for blended learning is flawed from the start especially for use among public school students. The modules are closely reliant on More

#### How to cite:

Anduyan, D. B. (2021). Effectiveness of Blended Learning Modules as Correlates of Self-Efficacy of ALS Students: Basis for an Action Plan. *International Journal of Multidisciplinary: Applied Business and Education Research*. 2(11), 1043 – 1060. doi: 10.11594/ijmaber.02.11.06

Knowledgeable Others (MKOs) capacities, additionally referred to as the person figures in students' homes. The module is based on their know-how and staying power to train the learners some ideas which they are not familiar with (Estrada, 2021). In Spain, the pandemic led college students to move for a brand-new methodological model – modular learning – for which college students have been now no longer prepared. The confinement as well as the fear of the unknown created negative emotions and eventually, low efficacy among students (Alemany et al., 2020).

Barnett (2017) argued that many blended learning modalities are ineffective due to the lack of quality assurance mechanism and benchmarking. Knight (2019) pointed out that the materials in the development of modules for blended learning on design work is insubstantial. Gallardo (2020) also pointed out that at the height of the Coronavirus (COVID 19) pandemic, teachers need to rush the creation of modules. However, many teachers do not have the qualification to design modules for blended learning modalities. There are time constraints for in-person training and that the contents have to be produced the fastest way they can in order to catch up with the opening of classes for all public schools in the country.

Many students find it ineffective and unequipped due to the pandemic. Due to student withdrawal, student performance continues to decline (Ross & Bruce, 2017). Modules created by the Department of Education make it difficult for students to understand the content, and some parents also lack the ability to teach their children (Adonis, 2020).

Content varies from school to school, and blended learning approaches depend on the balance. The plan seems to be wrong from the start. Especially in public schools, because of the large number of students, teachers struggle to reach all students and are challenged by economic and social factors. Students with low self-esteem are more likely to be harmed if blended learning content does not meet typical student needs (Estrada, 2020). However, self-efficacy increases as learners mark progress, achieve goals, and set new challenges. Goals that are too high or too low do not reinforce

beliefs in self-regulating learning or achievement (Freeman, 2018).

The students in alternative learning systems (ALS) in Tagum, Davao del Norte use blended learning materials to perform various tasks in the different subjects. The students are required to have mastery and develop competencies using the assigned contents. It was observed that students are no longer confident in addressing various competencies required as they are on their own. With the distant learning, the success of the students is dependent on how the lessons are delivered using the blended modality. In short, the effectiveness of the module's content can bring out the efficacy of the students.

If the blended learning contents lack the quality of its contents, usability, and as a potential tool for effective learning, then student efficacy is also affected. There is a need to improve the modules' effectiveness to empower students and improve their efficacy by learning them on their own. While the implications and effects of the pandemic on education are yet to be known, learning for both teachers and students are becoming challenging in more fragile and unstable contexts. The effectiveness of the module varies is affected when teachers do not have the necessary training and seminars about module making. The researcher sees an urgency to conduct the study and come up with an action plan to improve the efficiency of the self-learning modules and the self-efficacy of the students.

Finally, a dissemination plan will be created in order to inform and educate the stakeholders of the school particularly the teachers, school administrators, parents, and students. The dissemination plan will be initiated by the school administrator through a face-to-face or virtual seminar and/or publishing the results of the study through local, national, or international journals.

The study determined the effectiveness of blended learning modules as correlates to students' self-efficacy among students in the Alternative Learning Systems in Tagum, Davao del Norte during the second quarter of 2021. Findings will serve as bases for a proposed action plan.

Specifically, it answered to the following questions:

1. What is the level of effectiveness of the blended learning modules in terms of:
  - 1.1.Quality of content;
  - 1.2.Usability; and,
  - 1.3.Potential effectiveness as a teaching tool?
2. What is the level of student's self-efficacy in terms of:
  - 2.1.Self-efficacy in enlisting social resources;
  - 2.2.Self-efficacy for academic achievement
  - 2.3.Self-efficacy for self-regulated learning
  - 2.4.Self-regulatory efficacy;
  - 2.5.Self-efficacy to meet others' expectations;
  - 2.6.Social self-efficacy;
  - 2.7.Self-assertive efficacy; and,
  - 2.8.Self-efficacy for enlisting parental and community support?
3. Is there a significant relationship between effectiveness of blended learning modules and student's self-efficacy?
4. Which domains of effectiveness of blended learning modules significantly influence the student's self-efficacy?
5. Based on the findings of the study, what action plan can be proposed?

The study was anchored on the Self Efficacy Theory by Albert Bandura (1977). Originally, in his own words, he proposed this concept as a personal judgment of "how well we can perform the sequence of actions necessary to deal with future situations." Self-efficacy is a person's belief in the ability to succeed in a given situation. Self-efficacy also includes determination and patience. This helps overcome obstacles that impede the use of these innate abilities to achieve goals.

A person's belief in their ability to succeed plays a role in the way a person thinks, acts, and feels in the world. Self-efficacy also determines the goals we choose to pursue, how we achieve them, and how we reflect the results of our actions. Most people can identify the goals they want to accomplish, the things they want to change, and the things they want to achieve. However, most people also realize that implementing these plans is not easy. Bandura and others have found that an individual's

self-efficacy plays an important role in how they approach goals, tasks, and challenges.

The researcher believes that self-efficacy plays an important mediating role in the effectiveness of self-study modules. When goals are set and students put a lot of time and effort into achieving them, their self-efficacy improves and in the long run improves their learning outcomes. When students are more likely to choose an activity from a module that they feel they can successfully complete and this will lead to a more valuable outcome than wasting their time on these efforts. needlessly assume that modules are considered efficient.

## Methodology

The Researcher used a quantitative design. Quantitative design emphasizes objective measurement or numerical analysis of the data collected through the questionnaire. Quantitative research focuses on collecting numerical data and generalizing it across groups of people, or explaining specific phenomena (Babbie, 2018). In quantitative design, researchers use descriptive, correlated, and predictive designs.

In addition, this study used a descriptive design aimed at systematically explaining the phenomenon. There are answers about what, where, when and how to do it. The descriptive survey design allows you to explore one or more variables using a variety of survey methods (McCombes, 2020a). This study answered the efficiency of blended learning modules and the self-efficacy of students. Correlation design measures the relationship between two variables (McCombes, 2020b). This study answered the relationship between the efficiency of blended learning modules and student self-efficacy. Predictive design answers the area of effectiveness of blended learning modules that has a significant impact on student efficiency for ALS students.

The study was conducted in five (5) learning centers in the Central Cluster in Tagum City, Davao del Norte.

The respondents of the study were the 211 students in the ALS program in the different learning centers in Tagum City. Random sampling is part of a sampling technique in which each sample is equally likely to be selected.

Randomly selected samples are intended to provide an unbiased representation of the total population (Bennett, Coleman, & Co. Ltd., 2020). The sample size was derived using an online Raosoft calculator (95% confidence level, 5% margin of error, 50% response distribution).

To participate in the study, ALS program students must be in the Blended Learning Modality. This means that students will use both Google Classroom and modules as part of their learning modality. The same students also signed an informed consent form to show participation in the study.

The researcher utilized adapted-and-modified instruments. Part I measured the effectiveness of blended learning modules based on the study of Goode (2003) entitled, "Evaluating the Quality, Usability, and Potential Effectiveness of Online Learning Modules: A Case Study of Teaching with Technology Grant Recipients at the University of Tennessee, Knoxville" and was measured in the following areas: quality of content, usability, and potential effectiveness as a teaching tool." The indicators were measured using a 5-point Likert scale: 5 – Very High; 4 – High; 3 – Moderate; 2 – Low; and, 1 – Very Low. The parameter limits are shown below:

#### Parameter Limits – Teacher Efficacy Scale

Range of Means	Description	Interpretation
4.20 – 5.00	Very High	The effectiveness of the modules is very high.
3.40 – 4.19	High	The effectiveness of the modules is high.
2.60 – 3.39	Moderate	The effectiveness of the modules is moderate.
1.80 – 2.59	Low	The effectiveness of the modules is low.
1.00 – 1.79	Very Low	The effectiveness of the modules is very low.

Part II of the questionnaire measured the Student's Self-Efficacy was based on the study of Schunk and Mullen (2017) entitled, "Self-Efficacy as an Engaged Learner." The student's self-efficacy was measured in the following areas: self-efficacy in enlisting social resources; self-efficacy for academic achievement; self-efficacy for self-regulated learning; self-regulatory efficacy; self-efficacy to meet others' expectations; social self-efficacy; self-assertive efficacy; and, self-efficacy for enlisting parental and community support. The indicators were measured using a 5-point Likert scale: 5 – Very High; 4 – High; 3 – Moderate; 2 – Low; and, 1 – Very Low. The parameter limits are shown below:

#### Parameter Limits – Student's Self-Efficacy

Range of Means	Description	Interpretation
4.20 – 5.00	Very High	Student efficacy is manifested all the time.
3.40 – 4.19	High	Student efficacy is manifested most of the time.
2.60 – 3.39	Moderate	Student efficacy is manifested rarely.
1.80 – 2.59	Low	Student efficacy is manifested seldomly.
1.00 – 1.79	Very Low	Student efficacy is not manifested at all.

The instruments were tested for reliability after pilot testing to which an alpha value between .7 to .9 will be considered high consistency. Its indicators were also tested for test-retest with a value of .3 or higher to be considered in the instrument.

The researcher used the following tools for the statistical treatment of data:

Mean and standard deviation was used to present the teacher efficacy and student's self-

efficacy for their average and the extent of the deviation. Pearson-r was utilized to determine the significant relationship between teacher efficacy and students' self-efficacy. Linear regression was employed to determine which domains of effectiveness of blended learning modules significantly influence the student efficacy of the ALS students.

## Result and Discussion

### Level of Effectiveness of the Blended Learning Modules

Shown in Table 1 is the data on the level of effectiveness of the blended learning modules. It has an overall mean of 3.52, which is rated high. The effectiveness of the modules is high. The components of the mixed learning module allow learners to learn at their own pace. Learners can acquire knowledge, skills, and attitudes without a teacher to guide learning situations, well-defined goals, and tests. Learners can define and provide feedback to adapt to

different learning pathways, methodologies, and situations. The standard deviation (SD) ranges from .63 to 1.10. The SDs, which are lower than 1.00, denotes consistency of the responses, while those that are greater than 1.00 connote heterogeneity of the responses.

Quality of content has a category mean of 3.61 (SD=0.63), which is rated high. This result means that the quality of content is high. The module ensures that the contents meet the needs of the students by increasing the effectiveness and quality of instructional materials. This finding is consistent with Mugridge's (2016) conclusion that distance learning courses need to provide learners with a rich learning environment by attempting to incorporate educational processes that support active learning into learning materials increase. Successful teaching and learning is expected to depend heavily on how the module is interpreted and communicated to the end user (in this case the student).

Table 1. Level of Effectiveness of the Blended learning Modules

		Mean	SD	Description
A.	Quality of Content			
	<i>The blended learning module</i>			
1.	Has clear and concise directions on how to complete the module.	3.59	1.03	High
2.	Is properly sequenced.	3.54	1.01	High
3.	Has accurate content.	3.45	1.04	High
4.	Is detailed enough for the student to progress through the instruction without an instructor.	3.56	1.08	High
5.	Provides a complete demonstration of the concept.	3.38	1.05	Moderate
6.	Provides opportunities to practice new concepts and skills.	3.50	1.04	High
7.	Provides detailed and appropriate opportunities.	3.62	1.10	High
8.	Provides consistent feedback.	3.52	1.03	High
9.	Can be shared across its own academic discipline and/or others.	3.60	0.97	High
10.	Instruction follows a logical hierarchy of skill and knowledge of development.	3.61	0.97	High
	Category Mean	3.61	0.63	High
B.	Usability			
	<i>The blended learning module</i>			
1.	Is easy for students to accomplish the basic tasks the first time they encounter them.	3.54	0.98	High
2.	Allows students to quickly perform the tasks.	3.41	1.02	High
3.	Allows students to reestablish proficiency even after a period of not using it.	3.50	1.07	High

		Mean	SD	Description
4.	Allows students to recover from the errors or mistakes they commit when performing the tasks.	3.52	1.02	High
5.	Is pleasant when it comes to the design.	3.47	1.02	High
	Category Mean	3.49	0.68	High
C.	Potential Effectiveness as a Teaching Tool			
	<i>The blended learning module</i>			
1.	Has clear and concise learning objectives.	3.52	1.03	High
2.	Identifies prerequisite knowledge.	3.49	0.97	High
3.	Has activities, practices, or quizzes that reinforce the content.	3.60	0.90	High
4.	Offers timely and relevant feedback.	3.59	0.99	High
5.	Builds on prior concepts.	3.53	1.08	High
6.	Is very efficient – one can learn a lot in a short period of time.	3.58	1.04	High
7.	Is very effective as a teaching tool.	3.51	1.14	High
	Category Mean	3.54	0.64	High
	Overall Mean	3.52	0.60	High

The highest mean of score of 3.62 ( $SD=1.10$ ) pertains to *providing detailed and appropriate opportunities*. The rating is described as high, which connotes that its effectiveness is high. This result jives with Librero (2020) instructional materials must maintain high quality instruction and academic standards well designed and utilized as they play a very important aspect in maintaining the quality of instruction at the highest possible level in order to provide opportunities.

The item with the lowest mean score of 3.38 in the quality of content is *providing a complete demonstration of the concept*. It is imperative to ensure that where course delivery is concerned, this should be of the highest quality possible, especially as it relates to the distance learning where the students largely depend on the modules that are given to them for studying purposes. The result jives with the study of Wood (2014) that a key factor for distance learning is to ensure that the courses meet the needs of the consumer by increasing the effectiveness and quality of instructional materials.

On the other hand, usability has category mean of 3.49 ( $SD=0.68$ ), which is rated as high. This result connotes that usability of blended learning modules is high. There is ease-of-use during the design process. This conforms with the results of Nielsen (2019) that modules should possess learnability, efficiency, memorability, recovery from errors, and satisfaction.

The item with the highest mean score of 3.54 is *easy for students to accomplish the basic tasks the first time they encounter them*. This condition is described high; hence, effectiveness is high. Students find it easy to navigate with the module interface for the first time using the it. This is consistent with Nielsen's (2019) results that students can complete tasks quickly after learning design. The indicator, *allowing students to quickly perform the tasks*, yielded the lowest mean score of 3.41 ( $SD=1.02$ ), which is described as high; hence, effectiveness is high. New competencies required for the students tend to be difficult and hence, finding it less likely for students to perform the tasks quickly. This jives with the results of Quensenberry (2020) that only teachers can make them happen because interfaces are difficult. Students can only improve usability when teachers are present.

Lastly, the potential effectiveness as a teaching tool has a category mean of 3.54 ( $SD=0.64$ ). This module has specific learning goals that allow you to create a roadmap for preparing students for distance learning. This result is consistent with Papadopoulou's (2019) study that learning goals are the focus of course design and need to be clarified early in the planning phase.

The highest item in potential effectiveness as a teaching tool with a mean score of 3.60

( $SD=0.90$ ) is *having activities, practices, or quizzes that reinforce the content*. Modules are complete with all the required skills and competencies for students. This conforms with the result of Minnick (2017) that good modules must be able to guide students by themselves that allows practice and immediate feedback on their own. Even with little or no exposure of the concepts at all, students must be able to develop self-instructional competencies by discovering on how to learn the contents of the modules.

The lowest item with a mean score of 3.49 is *identification of prerequisite knowledge*, which is rated high; hence, effectiveness is high. Modules need to be able to recognize what they have learned in their previous years of academic training so that students can pursue and improve their knowledge and skills. This conforms with the results of Jogan (2020) that prerequisite knowledge prior to learning advanced knowledge and skills must be established. The self-study module provides an opportunity to develop good work ethic. With the

increase in enrollment and the explosive increase in knowledge, the need for modules is a time-consuming process. In addition, knowledge through modules helps to instill self-study habits and self-confidence in students, which is very important for improving learning.

### **Level of Student's Self-Efficacy**

Shown in Table 2 is the data on the level of student's self-efficacy. It has an overall mean of 3.52 ( $SD=0.57$ ), which is rated high. The student's self-efficacy is manifested most of the time. The students did what they needed to do to cope with the future situation. Therefore, students have the determination and patience to overcome obstacles that impede the use of these innate abilities to achieve their goals. The standard deviation ( $SD$ ) ranges from 0.57 to 1.09. The  $SDs$ , which are lower than 1.00, denotes consistency of the responses, while those that are greater than 1.00 connote heterogeneity of the responses.

*Table 2. Level of Student's Self-Efficacy*

		Mean	SD	Description
	<b>A. Self-Efficacy in Enlisting Social Resources</b>			
1.	Gets particularly teachers to help me when I get stuck on schoolwork	3.47	1.09	High
2.	Gets another student to help me when I get stuck on schoolwork	3.50	1.01	High
3.	Gets adults to help me when I have problems	3.50	1.00	High
4.	Gets a friend to help me when I have problems	3.55	0.93	High
	Category Mean	3.50	0.69	High
	<b>B. Self-Efficacy for Academic Achievement</b>			
5.	Promotes blended learning	3.51	1.01	High
6.	Learns the steps in performing the tasks required	3.47	0.99	High
7.	Masters the steps for a particular skill	3.54	0.98	High
8.	Creates competency on a particular skill	3.55	1.05	High
	Category Mean	3.52	0.70	High
	<b>C. Self-Efficacy for Self-Regulated Learning</b>			
9.	Finishes my homework assignments by deadlines	3.57	1.05	High
10.	Gets myself to study when there are other interesting things to do	3.47	1.02	High
11.	Uses the internet or other sources of information for the assignments	3.49	0.98	High
12.	Plans my activities for the module for the day	3.62	1.04	High
13.	Organizes my schoolwork	3.49	1.03	High

		Mean	SD	Description
14.	Remembers information the information well presented in modules	3.58	1.07	High
15.	Arranges a place to study without distractions	3.44	0.99	High
16.	Gets myself to do work involving modules	3.47	1.01	High
	Category Mean	3.52	0.65	High
	<b>D. Self-Regulatory Efficacy</b>			
17.	Resists peer pressure to do things that can get me into trouble	3.51	1.06	High
18.	Stops myself from skipping from my intended activities when I feel bored or upset	3.53	1.00	High
19.	Resists peer pressure to smoke cigarettes	3.44	1.07	High
20.	Resists peer pressure to drink beer, wine, or liquor	3.50	0.99	High
21.	Resists peer pressure to smoke marijuana	3.50	1.03	High
22.	Resists peer pressure to have sexual intercourse	3.56	1.02	High
23.	Controls my temper	3.55	0.98	High
	Category Mean	3.51	0.65	High
	<b>E. Self-Efficacy to Meet Others' Expectations</b>			
24.	Lives up to what my parents expect of me	3.60	1.02	High
25.	Lives up to what my teachers expect of me	3.54	1.06	High
26.	Lives up to what my peers expect of me	3.51	1.06	High
27.	Lives up to what I expect of myself	3.58	0.98	High
	Category Mean	3.56	0.68	High
	<b>F. Social Self-Efficacy</b>			
28.	Makes and keeps friends of the opposite sex	3.53	1.06	High
29.	Makes and keeps friends of the same sex	3.58	1.03	High
30.	Carries on conversations with others involving blended learning topics	3.54	0.95	High
31.	Works well in a group involving blended learning	3.67	0.96	High
	Category Mean	3.58	0.67	High
	<b>G. Self-Assertive Efficacy</b>			
32.	Expresses my opinions when other classmates disagree with me	3.51	1.08	High
33.	Stands up for myself when I feel I am being treated unfairly	3.54	1.02	High
34.	Gets others to stop annoying me or hurting my feelings	3.56	0.99	High
35.	Stands firm to someone who is asking me to do something unreasonable or inconvenient	3.49	1.05	High
	Category Mean	3.52	0.72	High
	<b>H. Self-Efficacy for Enlisting Parental and Community Support</b>			
36.	Gets my parents to help me with a problem	3.49	1.08	High

		Mean	SD	Description
37.	Gets my brother(s) and/or sister(s) to help me with a problem	3.42	1.00	High
38.	Gets my parents to take part in school activities	3.57	1.02	High
39.	Gets people outside the school to take an interest in my school (e.g., community groups, churches)	3.50	0.96	High
	Category Mean	3.50	0.70	High
	Overall Mean	3.53	0.57	High

Self-efficacy in enlisting social resources has a category mean of 3.50 (SD=0.69), which is rated high. This indicator is manifested most of the time. Students learn how to manage their learning process by setting the right goals for themselves, adopting the right strategies to achieve them, and using the influence of self-regulation to motivate and guide their efforts. I am. This is consistent with Villavicencio's (2018) study that help seekers are a characteristic of students who can monitor and assess what they are doing. Knowledge monitoring reflects a positive and instrumental approach to learning, so students who effectively apply knowledge monitoring strategies are more likely to seek academic support as needed.

The highest item with a mean score of 3.55 (SD=0.93) is *getting a friend to help me when I have problems*, which is rated high and is manifested most of the time. Students look for other students when they have problems or in other subjects. Ryan etc. (2018) asserted that students would usually seek for hints on how to solve a problem, an example of a similar problem, or how others can clarify the problem.

The lowest item with a mean score of 3.47 (SD=1.09) is *getting particularly teachers to help me when I get stuck on schoolwork*, which is rated high; hence, it is evident most of the time. When confronted with problems, students seek help from teachers particularly on how the required competencies are performed or when students are not able to solve particular problems. This is consistent with the findings of Villavicencio (2018), where learners seeking help are aware of difficulties that they cannot cope with and resolve those difficulties by seeking help from peers and trainers as needed.

Self-efficacy for academic achievement has a category mean of 3.52 (SD=0.70), which is

rated high. This means that this indicator is manifested most of the time. The students believe in their abilities and are able to perform scientific tasks. This is consistent with the results of Schunk and Ertmer (2020), where students have beliefs and attitudes about their ability to achieve academic success, and their beliefs about their ability to perform academic assignments and study materials well.

The highest item is *creating a competency on a particular skill* with a mean score of 3.55 (SD=1.05), which is rated high; hence, it is evident most of the time. Outstanding students acquire the skills required for blended learning subjects as independent learners. This is consistent with the study by Kurbanoglu and Akim (2018) that learners with high self-efficacy are due to poor trials rather than poor skills, and learners with low self-efficacy are due to poor skills.

The lowest item with a mean score of 3.47 (SD=0.99) is *learning the steps in performing the tasks required*, which is rated high and is evident most of the time. Students learn, memorize, and perform the steps required in the subject as an independent learner. This is consistent with Bandura's (1977) study that when faced with a complex problem, students are more likely to rely on themselves to find a solution to the problem to overcome the problem. Pintrich (2018) believes that self-efficacy leads to outstanding personal performance through increased commitment, effort and sustainability.

Self-efficacy for self-regulated learning has a category mean of 3.52 (SD=0.70), which is rated high and is evident most of the time. Students plan tasks, monitor their performance, and then look back at the results. This is consistent with the results of Usher and Pajares

(2018), students who have a strong sense of effectiveness in their self-regulation believe that they can manage their time effectively, organize their work, minimize distractions, set goals, track their understanding, ask for help when needed, and cultivate a productive work environment.

The highest indicator with a mean score of 3.62 (SD=1.04) is *planning my activities for the module for the day*, which is rated high and is evident most of the time. Students systematically orient themselves with their learning goals. This is consistent with the results of Usher and Pajares (2018) that students have a strong ability to think and act systematically based on or in relation to their learning goals.

The lowest item with a mean score of 3.44 (SD=0.99) is *arranging a place to study without distractions*, which is rated high and is evident most of the time. Students prepare the area as a study place or as a location for their performance away from disturbances that may hamper them to continue their performance. This result conforms again with the study of Usher and Pajares (2018) that students organize and minimize distractions in order to create an effective environment for learning.

Self-regulatory efficacy has a category mean of 3.60 (SD=1.02), which is rated high and is evident most of the time. Students can tolerate high-risk activities that can put them in difficult situations. This is consistent with the study by Caprara et al. (2018) Students must have the perceptual ability to counter dangerous activities.

The highest indicator with a mean score of 3.56 (SD=1.02) is *resisting peer pressure to have sexual intercourse*, which is rated high and is evident most of the time. Students as much as possible resist temptations when it comes to sexual intercourse brought about by peer pressure. These behaviors are evident on social media platforms, which causes students to become curious and eventually perform these dangerous behaviors. Caprara, Regalia, and Bandura (2002) have shown that highly self-regulatory students are less likely to exhibit deviant behavior such as combat, vandalism, and the use of weapons.

The lowest item with a mean score of 3.44 (SD=1.07) is *resisting peer pressure to smoke*

cigarettes, which is rated high and is evident most of the time. Students are likely to resist smoking cigarettes brought about by peer pressure. This behavior is due to the curiosity that students pretend to be adults already. Caprara et al. (2018) The effectiveness of self-regulation has been suggested to be negatively linked to deviant behavior. Therefore, students may be involved in combat, vandalism, gun use, and smoking.

Self-efficacy to meet others' expectations has a category mean of 3.53 (SD=1.06), which is rated high and is evident most of the time. The students are confident in controlling their motivation, behavior and social environment. This is consistent with the American Psychological Association (2020) finding that meeting other people's expectations affects all types of human experience, including the goals people strive for, the amount of energy expended to achieve a goal and the ability to achieve specific levels and perform the behavior.

The highest indicator with a mean score of 3.60 (SD=1.02) is *living up to what my parents expect of me*, which is rated high and is evident most of the time. Students are expected to be motivated and should set goals in their academic life. This is consistent with the results of students from Yamamoto and Holloway (2018) whose parents had high expectations received higher grades, higher scores on standardized tests, and persisted in school longer than with students with relatively low expectations. High parental expectations are also related to students' motivation to succeed in school, academic and social resilience, and aspirations to college.

The lowest indicator with a mean score of 3.51 (SD=1.06) is *living up to what my peers expect of me*, which is rated high and is evident most of the time. Students only meet the criteria they know they can do, but when a student's friends interfere with their studies, the students leave them. Therefore, this is the lowest indicator. This contradicts Drew's (2017) study of creating a diligent and confident classroom culture when students set peer expectations.

Social self-efficacy has a category mean of 3.67 (SD=0.96), which is rated high and is evident most of the time. In a social context, students advance academic achievement through

cognitive, motivational, emotional, and selective processes. This reflects a study by Ehrenberg et al. (2018) that belief in self-efficacy in a social context can improve academic achievement, career choice, and optimism, ultimately reducing thoughts of hopelessness and depression, a prominent symptom of depression.

The highest indicator with a mean score of 3.67 (SD=0.96) is *working well in a group involving blended learning*, which is rated high and is evident most of the time. The blended learning subject is usually done in groups or as a team, thereby building social confidence. This is in agreement with the results of Ehrenberg et al. (2018) Social trust helps to play an active role in all areas of life, especially in teams.

The lowest indicator with a mean score of 3.53 (SD=1.06) is *making and keeping friends of the opposite sex*, which is rated high and is evident most of the time. Students are less likely to make friends from the opposite sex and tends to make friends only from within same-sex circles. This jives with the study of Monsour, Harris, and Kurzwell (2019) that these relationships do not generally pose problems unless one or both parties in the friendship are in an exclusive intimate relationship with someone else.

Self-assertive efficacy has a category mean of 3.52 (SD=0.72), which is rated high and is evident most of the time. Students are ready to participate in school activities, regardless of their effectiveness or claim. This is consistent with a study by Nevill and Schlecker (1988) that the ability to build healthy interpersonal relationships is recognized as a social skill. Assertiveness, recognized as a social ability, also plays an important role in interpersonal relationships.

The highest indicator with a mean score of 3.56 (SD=0.99) is *getting others to stop annoying me or hurting my feelings*, which is rated high and is evident most of the time. Students assert themselves by not allowing others to hurt them. This is consistent with research by Nevill and Schlecker (1988) that assertiveness is defined as a person's defense of his or her rights without mocking or harming others and expressing thoughts, feelings, and emotions. trust in a frank, honest and appropriate manner. method. The ability to establish

healthy interpersonal relationships is accepted as a social skill.

The lowest indicator with a mean score of 3.49 (SD=1.05) is *standing firm to someone who is asking me to do something unreasonable or inconvenient*, which is rated high and is evident most of the time. Students are firm when something is getting inconvenient on their part and hence, assert themselves not to engage in the activities. Nevill and Schlecker (1988) stated that students with strong self-efficacies are assertive and are only willing to engage in positive activities.

Self-efficacy for enlisting parental and community support has a category mean of 3.50 (SD=0.70), which is rated high and is evident most of the time. Students involve their parents in school activities as it is integral to their development particularly on student achievement. This conforms with the results of Peiffer (2015) that when students involve their parents, students possess high self-efficacies and eventually, correlates to better parental involvement.

The highest indicator with a mean score of 3.57 (SD=1.02) is *getting my parents to take part in school activities*, which is rated high and is evident most of the time. Students make their parents take part in school activities such as the PTA meetings, Parents' Day, and other important school activities. Peiffer (2015) believes that parental involvement is integral to student achievement.

The lowest item with a mean score of 3.42 (SD=1.00) is *getting my brother(s) and/or sister(s) to help me with a problem*, which is rated high and is evident most of the time. Students with older siblings are highly likely to ask them when they experience problems related to their studies. Again, this jives with the results of Peiffer (2015) that when other people are involved in the activities of the students, there is better academic achievement.

### ***Relationship between Effectiveness of Blended learning Modules and Student's Self-Efficacy***

The result of the correlation between the domains of effectiveness of blended learning modules and student's self-efficacy is shown in Table 3. The quality of content is correlated to

all the domains of student's self-efficacy ( $p=.000$ ). Improving the content improves the self-efficacy of the students.

*Table 3. Relationship between Effectiveness of Blended learning Modules and Student's Self-Efficacy*

Effectiveness' Domains	Self-Efficacy Domains	r	p-value	Remarks
Quality of content	Enlisting social resources	.641	.000	Significant
	Academic achievement	.666	.000	Significant
	Self-regulated learning	.707	.000	Significant
	Self-regulatory efficacy	.717	.000	Significant
	Self-efficacy to meet others' expectations	.621	.000	Significant
	Social self-efficacy	.622	.000	Significant
	Self-assertive efficacy	.596	.000	Significant
	Enlisting parental and community support	.610	.000	Significant
Usability	Enlisting social resources	.620	.000	Significant
	Academic achievement	.587	.000	Significant
	Self-regulated learning	.647	.000	Significant
	Self-regulatory efficacy	.614	.000	Significant
	Self-efficacy to meet others' expectations	.550	.000	Significant
	Social self-efficacy	.566	.000	Significant
	Self-assertive efficacy	.576	.000	Significant
	Enlisting parental and community support	.592	.000	Significant
Potential effectiveness as a teaching tool	Enlisting social resources	.671	.000	Significant
	Academic achievement	.603	.000	Significant
	Self-regulated learning	.727	.000	Significant
	Self-regulatory efficacy	.685	.000	Significant
	Self-efficacy to meet others' expectations	.669	.000	Significant
	Social self-efficacy	.601	.000	Significant
	Self-assertive efficacy	.620	.000	Significant
	Enlisting parental and community support	.613	.000	Significant
Overall Effectiveness	Overall Self-Efficacy	.816	.000	Significant

The findings jive with the study of Richards (2018) that when teachers place value on the quality of the content, students better cope with their studies in distance learning modality. Students cope better with the difficulties they encounter over the learning materials, thereby improving their self-efficacies. As a result, students gain a greater sense of social power to deal with negative constraints, thereby equipping them with strategies to deal

with barriers to individual success. learn. Robinson and Lai (2016) also report that students are confident that they have learned the material on their own due to the effectiveness of the learning material. Improving students' effectiveness allows them to tailor their efforts to reduce learning difficulties. Students with high personal effectiveness guide their inner efforts to reduce their emotional anxieties, helping to enhance their academic performance even in distance education.

Usability is correlated with all the domains of student's self-efficacy ( $p=.000$ ). Improving usability improves the student's self-efficacy. The results agree with Cho and Cho (2017), which strongly agree on the effect of self-efficacy on usability. The improved ease of use of the modules proves their greater effect on learning and course satisfaction. Lim et al. (2016) also found that self-efficacy is influenced by the quality of the content, the quality of the system, and the usability of the content.

Potential effectiveness as a teaching tool is correlated with all the domains of student's self-efficacy ( $p=.000$ ). Improving the potential effectiveness as a teaching tool improves the student's self-efficacy. The results are consistent with the study of Lane et al. (2018) that there are significant correlation coefficients between self-efficacy and the effectiveness of modules as a teaching tool. The meaning of the relationship between self-efficacy and effectiveness is a controversial question. The authors argue that when modules have clear and concise learning objectives, expectations of effectiveness in performing a given task can influence students to be more successful in outcomes. their learning. Modules that allow practice and immediate feedback create greater efficiency among students.

Overall, effectiveness of modules is correlated with student's self-efficacy ( $p=.000$ ). Improving the effectiveness of modules improves the student's self-efficacy. This jives with the

results of Burge (2019) that effective learning modules have the ability to change the self-efficacy of students in overcoming difficult challenges that impact their learning. An effective module is one where the learning outcomes or stated objectives are matched to teaching and assessment or what is known as constructive relevance. In other words, in the context of learning outcomes, when students participate in learning activities, students improve their own effectiveness.

#### ***Predictors of Student's Self-Efficacy***

Table 4 shows the significance of the influence of the predictors on self-efficacy. Quality of content significantly influences student's self-efficacy ( $p=.000$ ,  $t=5.056$ ). This finding is consistent with research by Smith and Peters (2017) that when modules present excellent content, it has a positive impact on many aspects of students' lives, including engagement into social and recreational activities as well as improving performance and possibly academic performance. Anderson et al. (2019) also show that improved modules that promote greater feelings of effectiveness and self-efficacy can also have a positive effect on predicting better learning outcomes and quality of life. live better. In addition, poor self-study modules are correlated with low self-efficacy and have been shown to have a negative impact on managerial behaviors, leading to poorer academic performance and psychological well-being.

*Table 4. Significance of the Influence of the Predictors on Student's Self-Efficacy*

Predictors	Beta Coefficients	t	p-value	Remarks
Quality of content	.350	5.056	.000	Significant
Usability	.173	2.725	.007	Significant
Potential effectiveness as a teaching tool	.367	5.396	.000	Significant
Holistic Model				
Predictors	r square	F	p-value	Remarks
Combined	.673	146.199	.000	Significant

Usability is a predictor of student's self-efficacy ( $t=2.725$ ,  $p=.000$ ). This conforms with the study of Runhaar, Sanders, and Yang (2020) that high interaction content between the learning materials and the learners in the dis-

tant education is a predictor of effective learning that will result in positive consequences based on the effectiveness of the materials. The results seem to suggest that teachers need to create effective teaching materials based on learners' needs and goals in order to practice

teaching satisfactorily even through distance learning.

On the other hand, potential effectiveness as a teaching tool significantly influence student's self-efficacy ( $t=5.396$ ,  $p=.000$ ). This result is consistent with the study of Gutierrez et al. (In 2016, the learning module with the potential to become a teaching and learning tool will develop better self-efficacy for learners. The study indicates that enriched features of self-learning modules develop students who are deep and independent thinkers as well as self-reliant students who develop better work ethics.

## Conclusions

The level of effectiveness of blended learning modules is high. This finding implies that quality of content, usability, and potential effectiveness as a teaching tool is high. On the other hand, student's self-efficacy is also high. This result connotes that student's self-efficacy is evident most of the time in the following areas: self-efficacy in enlisting social resources; self-efficacy for academic achievement; self-efficacy for self-regulated learning; self-regulatory efficacy; self-efficacy to meet others' expectations; social self-efficacy; self-assertive efficacy; and, self-efficacy for enlisting parental and community support.

The statistical data established significant relationship between effectiveness of blended learning modules and student's self-efficacy. The findings of this study confirm the Self-Efficacy Theory of Albert Bandura (1977).

The module's quality of content, usability, and potential effectiveness as a teaching tool significantly influence student's self-efficacy. Better and usable module contents as well as an effective tool for teaching improve the self-efficacy of the students.

## Recommendations

Considering that the effectiveness of modules is high, the researcher recommends that the school management through the Department of Education may implement the action plan to improve the modules by a seminar-workshop for teacher involved in the creation of modules. There must be checking on the content through proofreading of contents headed

by lead teachers of the blended learning subject.

Since the effectiveness of the module significantly correlated and influence student's self-efficacy, there is still a need to explore these factors as to how they can be improved more necessary for the schools to sustain the high self-efficacies of students.

## References

Adonis, M. (2020). DepEd modules stump even adults. Retrieved from <https://newsinfo.inquirer.net/1344942/depeds-modules-stump-even-adults>

Alemany-Arrebola, I., Rojas-Ruiz, G., Granda-Vera, J., & Mingorance-Estrada, A. G. (2020). Influence of COVID-19 on the Perception of Academic Self-Efficacy, State Anxiety, and Trait Anxiety in College Students. *Front. Psychol.* 11:570017. doi: 10.3389/fpsyg.2020.570017

Alyami, M., Melyani, Z., Al Johani, A., Ullah, E., Alyami, H., and Sundram, F. (2017). The impact of self-esteem, academic self-efficacy and perceived stress on academic performance: a cross-sectional study of Saudi psychology students. *Eur J Educ Sci (EJES)*. 2017;4(3):51–68.

American Psychological Association (2020). Teaching Tip Sheet: Self-Efficacy. Retrieved from <https://www.apa.org/pi/aids/resources/education/self-efficacy>

Anderson, J. C., Halifax, K., Banter, L., and Evans, F. (2019). Efficacies of Students and the Learning Strategies of Teachers in Public Secondary Schools. *Journal of Education and Management*, 5(8):11-19.

Babbie, E. (2018). Organizing Your Social Sciences Research Paper. Retrieved from <https://libguides.usc.edu/writingguide/quantitative>

Baloran, E. T., and Hernan, J. T. (2020). Crisis Self-Efficacy and Work Commitment of Education Workers among Public Schools during COVID-19 Pandemic. doi:10.20944/preprints202017.0599.v1

Bandura, A. (1977a). Self-efficacy: toward a unifying theory of behavioral change. *Psychol Rev.* 1977;84(2):191.

Bandura, A. (1977b). Self-efficacy: toward a unifying theory of behavioral change. *Psychol. Rev.* 84, 191–215. doi: 10.1037/0033-295X.84.2.191

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*. 37 (2): 122–147. doi:10.1037/0003-066X.37.2.122.

Bandura, A. (1997a). Self-Efficacy in Changing Societies. Cambridge University Press.

Bandura, A. (1997b). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 1977;84(2):191-215. doi:10.1037/0033-295x.84.2.191

Bandura, A. (1997c). Self-Efficacy: The Exercise of Control. New York: Worth Publisher; 1997.

Bandura, A. (2016). Guide for Constructing Self-Efficacy Scales. Retrieved from <http://www.ravansanji.ir/files/ravansanji-ir/21655425banduraguide2016.pdf>

Bandura, A., Caprara, G. V., Barbaranelli, C., Pastorelli, C., Regalia, C. (2017). Sociocognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology*, 80, 125-135. doi:10.1037/0022-3514.80.1.125

Barnett, M. J. (2017). Quality Assurance and Benchmarking of Modules. *Journal of Educational Administration and Supervision*, 2(5):45-51.

Bennett, Coleman, & Co. Ltd. (2020). Definition of 'Simple Random Sampling.' Retrieved from <https://economictimes.indiatimes.com/definition/Random-Sampling>

Betz, N. E., Hackett, G. (2016). Career self-efficacy theory: Back to the future. *Journal of Career Assessment*, 14, 3-11. doi:10.1177/1069072705281347

Burge, A. (2019). How to Design Effective Teaching Modules. Retrieved from <https://www.uaces.org/resources/articles/how-design-effective-teaching-modules>

Caprara, G. V., Barbaranelli, C., Borgogni, L., and Steca, P. (2018). Efficacy beliefs as determinants of teachers' job satisfaction. *J. Educ. Psychol.* 95, 821-832. doi: 10.1037/0022-0663.95.4.821

Caprara, G. V., Barbaranelli, C., Steca, P., and Malone, P. S. (2016). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: a study at the school level. *J. Sch. Psychol.* 44, 473-490. doi: 10.1016/j.jsp.2016.09.001

Caprara, G. V., Scabini, E., Barbaranelli, C., Pastorelli, C., Regalia, C., Bandura, A. (2018). Impact of adolescents' perceived self-regulatory efficacy on familial communication and antisocial conduct. *European Psychologist*, 3, 125-132. doi:10.1027//1016-9040.3.2.125

Caprara, G. V., Vecchione, M., Barbaranelli, C., Alessandri, G. (2018). Emotional stability and affective self-regulatory efficacy beliefs: Proofs of integration between trait theory and social cognitive theory. *European Journal of Personality*, 27, 145-154. doi:10.1002/per.1847

Census of Population (2015). Census of Population – Region XII: Population by Province, City, Municipality, and Barangay. Philippine Statistics Authority.

Chemers, M. M., Hu, L. T., and Garcia, B. F. (2019). Academic self-efficacy and first year college student performance and adjustment. *J Educ Psychol*. 2019;93(1):55.

Cherry, K. (2020). Self Efficacy and Why Believing in Yourself Matters. Retrieved from <https://www.verywellmind.com/what-is-self-efficacy-2795954>

Cho, M. H. and Cho, Y. J. (2017). Self-regulation in three types of online interaction: a scale development. *Distance Education*, 38(1): 70-83 <https://doi.org/10.1080/01587919.2017.1299563>

Cyril, S., Smith, B., Possamai-Inesedy, A., and Renzaho, A. (2015). Exploring the role of community involvement in improving the efficacy of the disadvantaged populations: a systematic review. *Global Health Action*, 8. doi: 10.3402/gha.v8.29842.

Davis-Kean, P. D. (2015). The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology*, 19(2), 294-304.

Drew, C. (2017). 13 Ways to Set High Expectations in the Classroom. Retrieved from <https://helpfulprofessor.com/high-expectations-for-students/>

Ehrenberg, M. F., Cox, D. N., and Koopman, R. F. (2018). The relationship between self-efficacy and depression in adolescents. *Adolescence*. 2018;26(102):361-74.

Espino-Diaz, L., Fernandez-Caminero, G., Hernandez Lloret, C. M., Gonzalez-Gonzalez, H., and Alvarez-Castillo, J. L. (2020). Analyzing the Impact of COVID-19 on Education Professionals. Toward a Paradigm Shift: ICT and Neuroeducation as a Binomial of Action. Retrieved from <http://www.mdpi.com>

Estrada, L. P. (2021). Are self-learning modules effective? *Journal of Teacher Leadership and Education*, 3(1):33-42.

Ferla, J., Valcke, M., and Cai, Y. (2019). Academic self-efficacy and academic self-concept: reconsidering structural relationships. *Learn Individ Differ*. 2019;19(4):499-505.

Fraturar, J. (2019). How important is self-efficacy to our students' success? Retrieved from <https://sites.wit.edu/lit/how-important-is-self-efficacy-to-our-students-success/>

Freeman, C. (2018). Teacher Efficacy and its Impact on Student Achievement. All Regis University Theses, 16. Retrieved from <https://epublications.regis.edu/cgi/viewcontent.cgi?article=1015&context=theses>

Gallardo, J. M. (2020). Designing Modules for Learning in the Philippines. Graduate Thesis: University of the East.

Generoso, F. J. (2017). Bangsamoro Law in the Philippines. *Journal of International Jurisprudence*, 3(2):23-35.

Goodard, R., Hoy, W.K., and Hoy, A.W. (2020). Collective Teaching Efficacy: Its Meaning, Measure, and Impact on Student Achievement. *American Educational Research Journal*, 37, 479-507.

Goode, C. M. (2003). Evaluating the Quality, Usability, and Potential Effectiveness of Online Learning Modules: A Case Study of Teaching with Technology Grant Recipients at the University of Tennessee, Knoxville. Doctoral Dissertation: University of Tennessee, Knoxville. Retrieved from [https://trace.tennessee.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=5983&context=utk\\_graddiss](https://trace.tennessee.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=5983&context=utk_graddiss)

Gutierrez, L., Malcom, J., Lynch, A. M., and Allanic, P. (2016). Modules and Efficacies of Students: A Phenomenological Inquiry. *Journal of Collective Education*, 1(2):392-201.

Hamwetee, W. (2019). Quality Assurance in Modules at the Institute of Distance Education, the University of Zambia. *Journal of International Education*, 2019; 3(12):83-98.

Hoyt, C. L., Murphy, S. E., Halverson, S. K., Watson, C. B. (2018). Group leadership: Efficacy and effectiveness. *Group Dynamics: Theory, Research, and Practice*, 7, 259-274. doi:10.1037/1089-2699.7.4.259

Igbaria, M., Iivari, J. (2015). The effects of self-efficacy on computer usage. *Omega*, 23, 587-605. doi:10.1016/0305-0483(95)00035-6

Jogan, S. N. (2020). Self learning modules for students and teachers. <https://www.slideshare.net/SushmaJogan/self-learning-modules-for-students-and-teachers>

Karademas, E. C. (2016). Self-efficacy, social support and well-being: The mediating role of optimism. *Pers Indiv Differ*. 2016;40(6):1281-90.

Katz-Navon, T. Y., Erez, M. (2015). When collective- and self-efficacy affect team performance: The role of task interdependence. *Small Group Research*, 36, 437-465. doi:10.1177/1046496405275233

Khanshan, S. K., and Yousefi, M. H. (2020). The relationship between effectiveness of learning materials and self-efficacy of students. *Asian-Pacific Journal of Second and Foreign Language Education*, 5(1). doi:10.1186/s40862-020-0080-8

Klassen, R. M., and Tze, V. M. C. (2017). Teachers' self-efficacy, personality, and teaching effectiveness: a meta-analysis. *Educ. Res. Rev.* 12, 59-76. doi: 10.1016/j.edurev.2017.06.001

Klassen, R. M., Bong, M., Usher, E. L., Har Chong, W., Huan, V. S., and Wong, I. Y. F. (2019). Exploring the validity of a teachers' self-efficacy scale in five countries. *Contemp. Educ. Psychol.* 34, 67-76. doi: 10.1016/j.cedpsych.2018.08.001

Knight, C. J. (2019). Module Development for Better Teaching Skills. *Education and Supervision*, 4(1):993-1004.

Kolbe, K. (2019). Self-efficacy results from exercising control over personal conative strengths. *Journal of International Teacher Education*, 2019; 3(4):332-341.

Krishnan, P., and Krutikova, S. (2018). Non-cognitive skill formation in poor neighbourhoods of urban India. *Labour Economics*. 24: 68-85. doi:10.1016/j.labeco.2018.06.004. ISSN 0927-5371.

Kura, K. M., Shamsudin, F. M., Chauhan, A. (2018). Modeling the influence of group norms and self-regulatory efficacy on workplace deviant behaviour. *Asian Social Science*, 9, 113-122. doi:10.5539/ass.v9n4p113

Kurbanoglu, N. I., and Akim, A. (2018). The relationships between university students' chemistry laboratory anxiety, attitudes, and self-efficacy beliefs. *Aust J Teach Educ*. 2018;35(8):4.

Lacks, P. K. (2016). The Relationship between School Climate, Teacher Self-Efficacy, and Teacher Beliefs. Doctoral Thesis: Liberty University.

Lane, J., Lane, A., and Kyprianou, A. (2018). Self-Efficacy, Effectiveness, and Their Impact on Academic Performance. *An International Journal on Social Behavior and Personality*, 32(3). doi:10.2224/sbp.2018.32.3.247

Laughter, E. B. (2017). The Relationship between Teacher Self-Efficacy and Student Disciplinary Referrals Written by Secondary Teachers from a Rural School

District in a Southern State. Doctoral Thesis: Liberty University, Lynchburg, VA.

Librero, F. (2019). Distance Education in UP: Options and Directions. Paper produced for the University of the Philippines Open University. Los Banos: UP Open University. Retrieved from <http://www.UPOU.ORG/books/options.htm>

Lim, K. K., and Park, S. Y. (2016). Structural relationships of environments, Individuals, and learning outcomes in Korean online university settings, International Review of Research in Open and Distributed Learning, 17(4): 315-330 <https://doi.org/10.19173/irrodl.v17i4.2500>

Luszczynska, A. & Schwarzer, R. (2016). Social cognitive theory. In M. Conner & P. Norman (eds.). Predicting health behaviour (2nd ed. rev. ed.). Buckingham, England: Open University Press. pp. 127-169.

Mau, W.-C. (2020). Cultural differences in career decision-making styles and self-efficacy. Journal of Vocational Behavior, 57, 365-378. doi:10.1006/jvbe.1999.1745

McCombes, S. (2020a). Descriptive research. Retrieved from <https://www.scribbr.com/methodology/descriptive-research/>

McCombes, S. (2020b). Correlational research. Retrieved from <https://www.scribbr.com/methodology/correlational-research/>

Melton, R. F. (2018). Planning and Development Open and Distance Learning: A Quality Assurance Approach. London: Routledge Falmer.

Miller, N. E., and Dollard, J. (2020). Social Learning and Imitation. New Haven: Yale University Press.

Minnick, D. R. (2017). A Guide to Creating Self-Learning Materials. Retrieved from [http://books.irri.org/9711042126\\_content.pdf](http://books.irri.org/9711042126_content.pdf)

Mischel, W., and Shoda, Y. (2015). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. Psychological Review. 102 (2): 246-268. doi:10.1037/0033-295x.102.2.246.

Monsour, M., Harris, B., and Kurzwell, N. (2019). Sex roles. Retrieved from <https://doi.org/10.1007/BF01560277>

Mugridge, I. (2016). Quality Assurance in Open and Distance Education. In Garg, S.: Khan, A. R.: Aggarwal, A. K.: Kanjilal, U & Panda, S. (ed). Open and Flexible Learning-Issues and Challenges. Prof. G. Ram Reddy memorial Lecturers, New Delhi: Viva Books Private Limited.

Nevill, D. D., and Schlecker, D. I. (1988). The Relation of Self-Efficacy and Assertiveness to Willingness to Engage in Traditional/Nontraditional Activities. SAGE Journals, 2(1):392-401. doi:10.1111/j.1471-6402.1988.tb00929.x

Nielsen, J. (2019). Usability 101: Introduction to Usability. Retrieved from <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>

Padmapriya, P. V. (2015). Effectiveness of Self-Learning Modules on Achievement in Biology among Secondary School Students. International Journal of Education and Psychological Research, 4(2). Retrieved from [http://ijepr.org/doc/V4\\_Is2\\_June15/ij12.pdf](http://ijepr.org/doc/V4_Is2_June15/ij12.pdf)

Papadopoulou, A. (2019). Learning Goals and Objectives in Course Design. Retrieved from <https://www.learnworlds.com/learning-goals-objectives/>

Pashiardis, P. (2017). Teacher Participation in Decision Making. International Journal of Educational Management, 8(5):14-17. doi:10.1108/09513549410065693

Peiffer, G. D. (2016). The Effect of Self-Efficacy on Parental Involvement at the Secondary School Level. Master's Thesis: Pennsylvania State University.

Pintrich, P. R. (2018). A motivational science perspective on the role of student motivation in learning and teaching contexts. J Educ Psychol. 2018;95(4):667.

Purushothaman, P. (2017). Paper presentation on modular organization of course in workshop on teaching competencies and faculty development programme, Annamala University, Madras.

Quensenberry, W. (2020). What Does Usability Mean: Looking Beyond 'Ease of Use.' Retrieved from <https://www.wqusability.com/articles/more-than-ease-of-use.html>

Richards, J. C. (2018). Classroom observation in teaching practice. In J. C. Richards & T. S. C. Farrell (Eds.), Practice teaching: A reflective approach (pp. 90-106). Cambridge: Cambridge University Press.

Robinson, V. M. J., & Lai, M. K. (2016). Practitioner research for educators: A guide to improving classrooms, schools, and learning materials. Thousand Oaks: Corwin Press.

Romppel, M., Herrmann-lingen, C., and Wachter, R. (2018). A short form of the General Self-Efficacy Scale (GSE-6): Development, psychometric properties and validity in an intercultural non-clinical sample and a sample of patients at risk for

heart failure. *Psychosoc Med.* 2018;10:Doc01. doi:10.3205/psm000091

Runhaar, P., Sanders, K., & Yang, H. (2020). Stimulating teachers' reflection and feedback asking: An interplay of self-efficacy, learning goal orientation, and transformational leadership. *Teaching and Teacher Education*, 26(5), 1154–1161.

Ryan, A. M., Patrick, R., and Shim, S. (2018). Differential profiles of students identified by their teacher as having avoidant, appropriate, or dependent help-seeking tendencies in the classroom. *Journal of Educational Psychology*, 97, 275–285.

Schunk, D. H., and Ertmer, P. A. (2020). Self-regulation and academic learning: Self-efficacy enhancing interventions. *Handbook Self-Regul* Elsevier. 2020:631–49.

Schunk, D., and Mullen, C. (2017). Self-Efficacy as an Engaged Learner. In book: *Handbook of Research on Student Engagement*, pp.219-235. doi:10.1007/978-1-4614-2018-7\_10

Sequeira, A. H. (2019). Self-Learning is the Future: A New Paradigm for the 21st Century. *SSRN Electronic Journal*, 219. doi: 10.2139/ssrn.2111057

Smith, J., and Peters, M. (2017). Prediction of Self-Efficacy by Quality of Modules in Teaching and Learning Mathematics. *International Journal of Educational Leadership*, 3(2):221-239.

Stajkovic, A. D., Luthans, F. (2018). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124, 240-261. doi:10.1037/0033-2909.124.2.240

Sun, S. W. (2019). Family relationships and social competence during late adolescence: A longitudinal study [Dissertation] Austin, Texas: Texas Tech University; 2019.

The Geological Society of America (2021). Self-Efficacy: Helping Students Believe in Themselves. Retrieved from <https://serc.carleton.edu/NAGTWorkshops/affectionate/efficacy.html>

Tod, D., Hardy, J., and Oliver, E. (2019). Effects of self-talk: a systematic review. *J Sport Exerc Psychol.* 2019;33(5):666-87

Tschannen-Moran, M., and Hoy, A. (2018). Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education*, 17(7):783-805.

United Nations (2020). Policy Belief: Education During COVID-19 and Beyond. Retrieved from [https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg\\_policy\\_brief\\_covid-19\\_and\\_education\\_august\\_2020.pdf](https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf)

Usher, E. L., and Pajares, F. (2018). Self-efficacy for self-regulated learning: A validation study. *Educational and Psychological Measurement*, 68, 443–463.

Villavicencio, F. T. (2018). Influence of Self-Efficacy and Help-Seeking on Task Value and Academic Achievement. Retrieved from [https://www.researchgate.net/publication/274700390\\_Influence\\_of\\_self-efficacy\\_and\\_help-seeking\\_on\\_task\\_value\\_and\\_academic\\_achievement](https://www.researchgate.net/publication/274700390_Influence_of_self-efficacy_and_help-seeking_on_task_value_and_academic_achievement)

Wagar, C. (2020). The Importance of PE Among our Youth During a Pandemic. Retrieved from <https://ihtusa.com/the-importance-of-pe-among-our-youth-during-a-pandemic/>

Wood, D. (2014). Total Quality Management Strategic Plan for Distance Course Development. DEOSNEWS, 13(2).

Wuepper, D., and Lybbert, T. (2017). Perceived Self-Efficacy, Poverty, and Economic Development. *Annual Review of Resource Economics*. 9 (1): 383–404. doi:10.1146/annurev-resource-100516-053709. ISSN 2020-1340.

Yamamoto, Y., and Holloway, S. (2018). Parental Expectations and Children's Academic Performance in Sociocultural Context. *Educational Psychology Review*, 22:189-214. Retrieved from <https://link.springer.com/article/10.1007/s10648-010-9121-z>.