University Instructors' Online Teaching Competencies and Students' Academic Motivation in a Vocational University in China

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Abstract

Aim: This study assessed the online teaching competencies of faculty members and students' academic motivation at Guangdong Vocational and Technical University of Business and Technology in China toward effective online instruction.

Methodology: This study used descriptive-comparative-correlational research. It utilized the gathering of data concerning the online competencies of teachers and students' academic motivation through the online distribution of questionnaires toward effective online instructions and faculty development strategies.

Results: There is no significant difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application when their age, sex and course are taken as a test factors. Also, there is no significant difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction when their age, sex and course are taken as test factors.

Conclusion: 9. The assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and their self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction were found to have a weak positive correlation.

Keywords: University Instructors, Online Teaching Competencies, Students' Academic Motivation, Vocational University, China

INTRODUCTION

As part of the consequences of the COVID-19 pandemic lockdown, thousands of schools not only in China but in the whole world were closed since the start of the spread of the virus (Dela Cruz, & Natividad-Franco, 2021; Flores, 2022) and when will the closures will end completely seems to be hardly possible to predict as of the time of writing of this paper. Particularly at this time, virus proliferation in China is still happening throughout the country. But implementation of instruction must proceed no matter what (Flores, 2020; Muńoz & Sanchez, 2023). This is a big challenge for all school administrators, teachers and even parents and students. How will the school administrators continue the learning of the students? How will the teachers deliver the instruction with maximum learning efficiency and most importantly, how will the students be motivated to learn at this time having such a situation?

It is extremely challenging time for school administrators to adopt the blended, modular, and fully online learning modality that has been implemented by the Ministry of Education of China.

Even before the pandemic, there are some institutions that have already established different modalities beyond the usual face-to-face classroom lessons (Natividad-Franco, 2022; Salendab, 2023; Regala, 2023). For Higher Education Institutions, they set up a virtual online environment where a tremendous number of students are currently enrolled in.

Indeed, with this massive implementation of online learning, HEIs explore dozens of e-learning technologies like learning package which includes online subscription, modules, simulations, etc., with new ones, emerging each day. The said program was accompanied by different challenges, technologies for online learning confront the online

teaching competencies (OTC) and student academic motivation (SAM).   Now, school administrators continue rethinking and strategizing on how to combat the technological cyclone brought about by the implementation of online learning.

Given this demand, online technologies are amalgamated into teaching and learning environments linking online teachers' competencies and students' academic motivation. Considering the great phenomenon brought by the technological cyclone, it is surprising that online teachers' competencies and student academic motivation might be compromised.

Teaching in a technology-rich environment is complex and with our current condition, the online faculty members must possess a broader set and sense of competencies in order to ensure the students will be academically motivated. In order to adequately provide the online teaching of faculty members with the necessary competencies and student academic motivation that will result in effective online instruction, the online teachers' competencies and SAM must be identified and prioritized.

The purpose of this study is to identify the online teaching competencies (OTC) of the faculty members such as subject matter knowledge (SMK), instructional representation and strategies (IRS), Knowledge of Students' Understanding (KSU), and Technology Integration and Application (TIA) (Chang, 2016).

On the other hand, the student's academic motivation must be considered and assessed in terms of attention, relevance, confidence, and satisfaction (Huang & Hew, 2016). This assessment will propose effective online instruction.

One of the universities that were greatly affected by this event is the Guangdong Vocational and Technical University of Business and Technology in China. The university used the online platform at the height of the pandemic and even now that there is again a surge of this COVID 19 in the country.

Consequently, the implementation online learning modality have been a dilemma to the institution concerning their online teaching competencies of their faculty members and student's academic motivation. It was stated that competency refers to the way that a state of competence can be demonstrated to the relevant community (Dizon & Sanchez, 2020; Flores, 2019a; Flores, 2019b). According to the International Board of Standards for Training, Performance and Instruction (IBSTPI), a competency involves a related set of knowledge, skills and attitudes that enable a person to effectively perform the activities of a given occupation or function in such a way that meets or exceeds the standards expected in a particular profession or work setting (Richey et al., 2021).

On the other hand, student academic motivation, as mentioned by Biyun Huang, et al. (2016), stimulates and sustains learning behavior. It is important to understand learners' motivation and identify whether the instructional learner's motivation and identify whether the instructional materials can motivate or demotivate students.

The constant transformation of IT makes the online teaching competencies of faculty members a continuous process and demands for an effective online instruction that will promote the institutions credibility to conduct an online class. Indeed, the student academic motivation will be assessed. Such endeavors will improve their ability towards an effective online instruction.

Since it's going to be an online learning modality that has been implemented by Guangdong Vocational and Technical University of Business and Technology in China, now the main concern is the online teaching competencies of faculty members and student's academic motivation if being met. To ensure the effectiveness of online instruction, the researcher will provide survey questionnaires wherein the students will be the respondents to assess the online teaching competencies of their faculty members and their students own academic motivation.

The online learning environment varies profoundly from the current situation when it comes with the online teaching competencies in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding and technological integration application (Salendab & Cogo, 2022; Salendab & Dapitan, 2020; Sanchez, 2022; Sanchez, 2023a; Sanchez, 2023b; Sanchez, Sanchez & Sanchez, 2023). Student academic motivation was also assessed in terms of attention, relevance, confidence and satisfaction. This research might be a great help for the institution for effective online instruction.

Online Teaching Competencies

As per Budhrani and Ritzhaupt (2019), the explosive growth of online learning in institutions of higher education has created a dire need for guidelines that instruct new and continuing online instructors about how best to teach in online spaces. The purpose of this exploratory study was to identify the roles of the online instructor and categorize critical competencies for online teaching based on a review of research and the perspectives of award-winning online faculty members. This research has clear implications, not only for the literature research base, but

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for our institutions as well, as we continue to offer increasing numbers of effective online courses and programs to our students. The researchers of this study cited that clear implications, not only for the literature research base, but for the institutions as well, as they continue to offer increasing numbers of effective online courses and programs to their students.

There are competencies required for teaching online courses in higher education and issues related to online learning and teaching that have to be identified (Albrahim, 2020).

The researcher confirmed that the topic was performed to confine skills and competencies that instructors need to effectively teach in online learning environments. These skills and competencies are classified into six categories: (a) pedagogical skills, (b) content skills, (c) design skills, (d) technological skills, (e) management and institutional skills, and (f) social and communication skills.

The study of Tremblay, Lalancette and Roseveare (2017) on the assessment of higher education learning outcomes stated that in order to teach online teaching competencies to educators at Turkish state universities, an investigation is necessary. Survey design was used. Both quantitative and qualitative data were collected. Thirty distance education unit administrators or employees from 30 universities participated in the research. According to the results, the training needs of the educators were determined by only 11 universities' distance education units. At 21 universities, the educators stated their training needs without being asked. In a large majority (f=24, 80%) of the universities, the training needs were determined in some way. In addition, almost all (f=27) universities provided training activities related to online teaching competencies. Most of the universities (f=26) provided trainings by their own units. Twenty-one universities preferred face-to-face training. Twelve universities had these trainings obligatory for their educators. Four universities stated that they presented a certificate at the end of the training. Eleven universities presented their trainings via an asynchronous platform. Moreover, 23 universities taught technological subjects in online teaching competency, eight universities taught pedagogical subjects, and only four universities taught both. However, universities need to teach both subjects. Besides, the theory of andragogy and social, cognitive, and teaching presence were not encountered in the contents of the training activities. The researchers firmly cited that teachers in universities need to teach technological and pedagogical subjects and must possess an online teaching competency. In addition, after a thorough investigation, the result of this study there were the training needs of the 11 universities' distance education units were determined.

According to Wand, Wang and Stein (2019), the structure of Chinese Beginning Online Instructors' Competencies is crucial to improve online education. The structure of beginning online instructors' perceived competencies was widely discussed, and it was also confirmed that the structure and level of online teaching competencies would be varied across countries and different cultural backgrounds. The three factors are named "preparing and supporting online teaching," "creating an appropriate environment for students' learning," and "conducting appraisals of student learning." The contributions of this study are as follows: (1) discussing the structure of Chinese beginning online instructors' perceived competencies, (2) discussing why and how the structure of online teaching competencies varied across countries, (3) providing practical suggestions for online instructors' training programs, and (4) providing methodological guidelines in factor analysis with small sample sizes for applied researchers. The researchers of this study cited that the structure of beginning online instructors' perceived competencies was widely discussed, and it was also confirmed that the structure and level of online teaching competencies would be varied across countries and different cultures. The author of this study will provide teachers with the information they need to get started and keep going at any level, along with resources for more in-depth information or assistance. The author explained that this playbook is a collaboration between the Online Learning Consortium (OLC), the Association of Public and Land-grant Universities (APLU), and the Every Learner Everywhere Network were involved.

Badia, Garcia and Maneses (2016) wrote that there has been widespread interest in the implementation of online courses in universities. While most studies about online learning environments primarily focus on technology-related issues or instructional methods, little attention has been given to online teachers and their teaching approaches. The aim of the paper is to provide an overview of how teachers approach online teaching and the factors affecting individual teachers' approaches to teaching online, particularly in a fully online university. Nine hundred and sixty-five (965) online teachers belonging to the Open University of Catalonia were surveyed. The dependent variables include three approaches to teaching online: the Content Acquisition approach, the Collaborative Learning approach, and the Knowledge Building approach. The explanatory variables are socio-demographics, academic background, online teaching experience, studies taught, online teaching dedication, and teachers' roles in teaching online. Multiple regression analyses are used to make inferential judgments and test the effects of the independent variables. The result of result of this study suggested that age, academic background, online teaching

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dedication, and especially teachers' roles in teaching online are important predictors of the adoption of a particular approach to teaching online.

Paliwal and Singh (2021), Sanchez and Sarmiento (2020), and Sanchez, et al. (2022) considered that Coronavirus (COVID-19) outbreak has utterly disrupted the worldwide education system and compelled an emergency immersion of unplanned and rapid online teaching-learning. The online teaching readiness would highly depend on the competencies of teachers and skills to adapt the pedagogy and new roles by the teachers. In this context, this study aims to assess higher education institutions (HEIs) teachers' readiness to handle online education based on the online teaching readiness competencies model.

Education progresses in the digital era and in the Fourth Industrial Revolution, learning will be adaptive and individualized to meet the needs of individual learners. This is possible because of emerging technology, artificial intelligence, and the internet of things. (Alley, 2019). The researcher of this study ensured that there will be a significant contribution to future education by identifying forces that are shaping education and developing a competency profile for the digital teacher of the future.

Additionally, Moorhouse, Li and Walsh (2021), Regala (2020), Salendab and Dapitan (2021a), and Salendab and Dapitan (2021b) stated that the teachers require specific competencies to effectively use interaction as a tool for mediating and assisting learning. These can be referred to as classroom interactional competence. However, the situation created by the ongoing global COVID-19 pandemic which began in early 2020, and the recent advancement in technologies have led to teachers conducting synchronous online lessons through video-conferencing software. The online environment is distinctly different from the face-to-face classroom and teachers require new and additional skills to effectively utilize interaction online in real time.

The researchers exploratory study used an online mixed-method survey of 75 university level English language teachers who had engaged in synchronous online teaching due to COVID-19, to explore the competencies that teachers need to use interaction as a tool to mediate and assist language learning in synchronous online lessons. Teachers were found to require three competencies, in addition to their CIC – technological competencies, online environment management competencies, and online teacher interactional competencies – which together constitute e-CIC. The findings provide greater insights into the needs of teachers required to teach synchronously online and will be of interest to teachers and teacher educators. It is also critical for instructors who are adopting new roles and competencies in online teaching environments (Adnan, 2017).

It has been a challenge for faculty competency to implement digital era as mentioned by Hartoyo, Ahmad and Fitriani (2021). It is a challenge for teachers to maintain their professional competence in achieving national education goals in this digital era. This research aims to study the implementation in the digital era of teacher professional competence. This research utilizes qualitative methods.

The researchers aim to study the implementation of information and communication technology for educators. The said study utilized the digital era or information and communication technology for professional competence of the educators.

To measure the competencies of faculty, Schmid, Brianza and Petko (2020) from their study on Technological Pedagogical Content Knowledge (TPACK) regarded as one of the most important models describing teachers' competencies for successfully teaching with technology. TPACK is most frequently assessed by means of self-report questionnaires, which beside their inherent methodological limitations, present constraints related either to the validity, reliability, or practical applicability of existing instruments. Furthermore, the internal structure of the TPACK framework is a topic of debate. The two goals of this study were (1) to develop a valid and reliable short questionnaire for measuring TPACK (TPACK.xs), and (2) to use this instrument to investigate TPACK's internal relations, assessing whether the framework reflects an integrative or a transformative view regarding how the TPACK knowledge domains interact. An initial questionnaire of 42 items was administered to 117 pre-service upper secondary school teachers. Reliability analysis and confirmatory factor analysis were used to reduce the number of items per subscale and fit the model. Structural equation modelling investigated the internal relations between components. Results show that the final TPACK.xs questionnaire, consisting of 28 items, can be considered a valid and reliable instrument for assessing pre-service teachers' TPACK. Furthermore, the internal relations of knowledge components support a transformative view of the TPACK model.

The researcher intended to use the Technological Pedagogical Content Knowledge (TPACK) as one of the most important models describing teachers' competencies for successfully teaching with technology. The goals of this study were to develop a valid and reliable short questionnaire for measuring TPACK and to use this instrument to investigate TPACK's internal relations. The result of this study is that the internal relations of knowledge components meet the need of transformative view of TPACK model.

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Student Academic Motivation

According to Menglun, Chin-Chung, Iyun and Wand (2021), even though Massive Open Online Courses (MOOCs) have created highly personalized and dynamic learning environments for higher education, the low completion rate has hampered their development. Nevertheless, how to engage MOOC learners in continuing to learn online remains unclear in terms of psychological mechanisms. Enlightened by the social cognitive view of learning and hardiness theory, this study investigates the mediating role of online academic hardiness (the courage that is needed to turn stressful changes from burdens into advantageous growth in online environments) between web-based learning self-efficacy (the specific beliefs that people have in their capability to complete tasks when learning online) and online learning engagement. Using validated self-reported scales, a total of 608 participants of six MOOCs courses from Taiwan were included in this study. The results of structural equation modeling indicated the significant mediating effect of commitment on behavioral, emotional and cognitive engagement in learning MOOCs. Additionally, we found that the components of web-based learning self-efficacy led to different types of engagement: general Internet-based learning self-efficacy contributes to behavioral and emotional engagement, whereas functional Internet-based learning self-efficacy contributes to emotional and cognitive engagement. The direct and indirect effects of web-based learning self-efficacy highlight its critical role in online learning engagement. Overall, our conceptual model based on the agentic view of social cognitive theory provides researchers and practitioners with a holistic picture to understand the MOOC engagement phenomenon by revealing mixed results compared to traditional distance education. The researcher of this study cited that internet-based learning self-efficacy have contributed to both behavioral and emotional and even in cognitive engagement. This reveals that massive open online courses have a combined results-based internet and web-based learning compared with the traditional distance learning.

According to Kemsker, Gerlinde and Monitzer (2020), teaching and learning processes should be continuously developed due to changes in educational requirements as well as social and technological changes. The researchers aim is to clarify the effects of digital transformation on educational institutions and to outline the challenges that arise and need to be addressed in this context. Wherein challenges facing higher education institutions, as a result of digital transformation will be discussed and strategies for the further development of higher education regarding digital transformation. In addition, this study focuses on the self- assessment of the digital competencies of students is outline and the results will be presented for further development in technology-supported teaching and learning processes at higher education institutions. The implementation of technology-supported teaching and learning settings and the rethinking of present teaching content is seen as both a challenge and an opportunity for preparing students as well as lecturers for digital transformation. With regard to the current COVID-19 situation, this is a challenge that must be met sooner rather than later.

Zaccoletti, Camacho, Correia and Aguilar (2020) prompted them to compare the cross-country student academic motivation where the COVID-19 outbreak has ravaged all societal domains, including education. Home confinement, school closures, and distance learning impacted students, teachers, and parents' lives worldwide. In this study, we aimed to examine the impact of COVID-19-related restrictions on Italian and Portuguese students' academic motivation as well as investigate the possible buffering role of extracurricular activities. Following a retrospective pretest–posttest design, 567 parents (nItaly = 173, nPortugal = 394) reported on their children's academic motivation and participation in extracurricular activities (grades 1 to 9). We used a multi-group latent change score model to compare Italian and Portuguese students': (1) pre-COVID mean motivation scores; (2) rate of change in motivation; (3) individual variation in the rate of change in motivation; and (4) dependence of the rate of change on initial motivation scores. Estimates of latent change score models showed a decrease in students' motivation both in Italy and in Portugal, although more pronounced in Italian students. Results also indicated that the decrease in students' participation in extracurricular activities was associated with changes in academic motivation (i.e., students with a lower decrease in participation in extracurricular activities had also a lower decrease in motivation). Furthermore, students' age was significantly associated with changes in motivation (i.e., older students had lower decrease). No significant associations were found for students' gender nor for parents' education. This study provides an important contribution to the study of students' academic motivation during home confinement, school closures, and distance learning as restrictive measures adopted to contain a worldwide health emergency. We contend that teachers need to adopt motivation-enhancing practices as means to prevent the decline in academic motivation during exceptional situations. The researchers of this study aimed to examine the impact of COVID-19-related restrictions of students' academic motivation as well as investigate the possible buffering role of extracurricular activities. As the result, students' students with a lower decrease in participation in extracurricular activities also had a lower decrease in motivation. The researcher recommends that the teachers need to adopt

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motivational-enhancing practices to avoid the decreasing number of students' academic motivation during this season.

In the comparison made by Malinauskas and Požėrienė (2020), the differences in academic motivation between university students of traditional (in - classroom) and online (distance) education were investigated. It has been hypothesized that online (distance) students possess stronger intrinsic motivation than traditional (in - classroom) students. The random sample consisted of 386 students. Participants comprised 189 male and 197 female students; 194 of them were traditional students, and 192 of them were online students. The cross - sectional research design was used in this study. A 21 item Academic Motivation Scale (SAMS - 21) was used to measure three types of extrinsic motivation (intrinsic motivation to know, to accomplish things, and to experience stimulation), three types of extrinsic motivation (external, introjected, and identified regulation) and a motivation in university students. The findings indicated that students' intrinsic motivation scores were higher in online students than in students who attend traditional face - to - face classes. The results did not reveal significant differences between male and female students in terms of academic motivation. This study made a novel contribution to the literature, because the present study has compared academic motivation between university students of traditional and online education in a new context. i.e. before COVID - 19 pandemic and during it. Recommendations are provided for further research into areas not covered by this study. The researcher made a great novel contribution to the present study and was able to compare the academic motivation between the traditional and online education of students in a new context. before and during the pandemic.

Effective Online Instruction

Rozitis (2017) conducted a study to clearly define the online high school educators now have a set of instructional design competencies that will support modifying learning objects within their classes. Abragan (2021) identified the professors' e-readiness competencies in implementing online classes in terms of course design, course communication, time management, and technical competence. Also, it aimed to determine the students' perception towards the online class in terms of instructional design and delivery on students, teacher roles on students, and class organization and format. Pure descriptive analysis was used in analyzing the data, such as mean and percentage distribution. Both adapted and adopted survey questionnaires were used to address this research's problem, and these were distributed to the respondents either via online and phone call. Results showed that the senior high school department professors were good enough to use online platforms with an overall mean of 1.76, which implies that most of them are technically sound. Students have agreed that their professors are satisfied with instructional design and delivery, teacher roles, and class organization and format. The overall mean of 3.60 of students' perception towards online class implies that students have perceived their teacher's teaching way amidst pandemics is still promoting students' desire to learn, which engaged them to become more interactive in various activities. Because there are observable few numbers that can be seen in the results indicating that the teachers are not proficient enough in digital literacy, it is highly recommended to get the respondents' demographic profile in terms of age and training attended about computer literacy. It is also recommended that the professors' e-readiness be correlated to students' perception of the online class. The researcher cited in this study that the professors were good enough in in terms of communication, time management and technical competence. This study might be considered to identify the competencies of the faculty to have an effective online instruction that will benefit the students and entire institution.

From the study of Ibrahim and Alshauibi (2021), since the 1990s, online programs have expanded across Saudi Arabia. However, Saudi universities have encountered a variety of challenges in implementing E-learning. A significant challenge is the lack of instructor training in online teaching skills. Consequently, instructors have been unable to adjust to the rapidly growing nature of learning technology. Thus, a few instructors have remained unenthusiastic about distance learning, and online learning has yielded unsatisfactory outcomes. While there are numerous studies related to online faculty in Saudi Arabia, only one of these studies considers students' perspectives for online faculty competencies in Saudi universities. Hence, this study contributes to the literature and adds new data regarding faculty's perceived instructional competencies from students' perspectives. The research questions inquire about the competencies that faculty must possess for conducting online classes and assess if there are any differences in students' perspectives due to participants' gender and academic major selection. The sample includes 226 currently enrolled students (n = 226) from the Saudi Electronic University (SEU). The data was collected via an online survey. The responses were analyzed using a t-test, one-way analysis of variance (ANOVA), and two-way ANOVA using the Statistical Package for the Social Sciences (SPSS). The results revealed that the top five high-rated skills focus on the interaction between instructor and students through feedback and communication. Also, results

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indicated that males and females differed in their perceptions in six out of seven online competencies. The findings also revealed there were no differences among students due to their academic discipline. This research might be considered to improve the online teaching competencies and student academic motivation in terms of online instruction that will benefit the institution and stakeholders.

Farmer and Ramsdale (2016) identified the key competency areas that lead to success in online instruction and to develop a framework that supports professional development and self-assessment. The key competency areas and levels of competence resulting analysis produced the Online Teaching Competency (OTC). The authors of this study were able to create the leveled competency matrix which can be used to inform professional development in the online teaching environment and is also a useful guide in the areas of self-assessment, portfolio design, and the development and evaluation of professional development opportunities.

As per Muller (2019), the OSCQR Rubric and Process is to assist online instructional designers and online faculty to improve the quality and accessibility of their online courses. OSCQR also provides a system-wide approach to collect data that informs faculty development and supports large scale online course design review and refresh efforts in a systematic and consistent way (Muller, 2019). The author explored the general considerations of online teaching as they pertain to the assessment of student learning outcomes. The Institute specifically cites examples which will be given of how online course instructors and distance learning administrators have designed their courses and programs to ensure appropriate assessment of learning outcomes will be met.

Cutri and Mena (2020), from their study that online courses are mainstream throughout higher education. This pattern has been accelerated, temporarily or permanently, due to the coronavirus pandemic (Allen & Seaman, 2016; Arum & Stevens, 2020; Garrison, 2011). Gunder, Vingnare and Rafferty (2020) cited the delivering high-quality instruction online in response to Covid-19 that many colleges and universities have been developing and delivering successful online programs for years. However, despite the growth in online learning, research on student, faculty, and institutional readiness for online learning makes it clear that educators and institutions need more help understanding how to effectively design, develop, and deliver high-quality instruction online. This need is greatest for educators at institutions serving low-income students, first-generation students, and students of color who will likely be disproportionately affected by the current crisis because they lack access to needed resources and technology. This playbook is designed to serve as a concise guide in addressing faculty needs for online course design, teaching, and continuous improvement.

It was added to measure the Teacher Educator Technology Competencies were created as a set of technology competencies specifically for teacher educators who prepare future teachers to teach with technology (Knezek, Christensen & Furuta, 2019). The researcher developed a survey based on the competencies to assess the psychometric properties of the instrument. the authors to conclude that the Teacher Educator Technology Competencies address a large portion of the teacher educator attributes required for proficiency in the preparation of future teachers to integrate technology and the survey is recommended for use in additional studies with teacher educators.

The study of De Vera, Andrada, Bello and De Vera (2021) explores the novice teachers' competencies in integrating education technology in lesson preparation. The paper is anchored in the professional standards for teachers, specifically, the domains that focus on the positive use of ICT. The study utilized a mixed-method research design. The selected 132 novice teachers answered the online survey questionnaire introduced using Google forms and 10 participants answered an online interview. They were chosen through the purposive sampling technique. The data were collected using Blended Teaching Readiness survey questionnaire and semi-structured questionnaire, for the quantitative phase and qualitative phase, respectively. The analysis of data progressed through statistical software and thematic coding. The study revealed that the self-evaluation of novice teachers on their abilities is very competent. The qualitative data exposed the different struggles in teacher preparations in instructional methodologies. Hence, novice teachers must undergo additional professional development on the integration of technology in instructional designing, assessment, and managing online learning environments. Teacher education institutions must intensify in equipping teachers with knowledge on integrating technology in lesson preparations. The government must provide resources for the teachers that will help them prepare instructional materials such as ICT rooms, technicians for technical support, laptops, and internet connectivity. Enough time will also help teachers to design better instructional materials for their classes. The current situation of the education system of our country needs a more significant push and an optimistic view that we will be able to make progressive change. Teachers should think of personal initiative, welcome the possible ways to enhance the current system, and become part of reforms to help our country uplift and face challenges and endeavors. According to the researchers that the teachers have to be competent in terms of technology. They have to be equipped and embrace the current education system

wherein they have to be optimistic to welcome the progressive change in educational system by integrating technology in their instructional methodology. As a teacher they have to be trained in terms of professional development however, the government must be willing to provide resources for their teachers for them to be trained and developed their skills in integration technology in terms of instructional materials for their classes.

Academic leaders can better implement institutional strategic plans to promote online programs if they understand faculty perceptions about teaching online. An extended version of a model for technology acceptance, or TAM2 (Venkatesh & Davis, 2000), provided a framework for surveying and organizing the research literature about factors that have influenced faculty's adoption of online delivery methods for courses and their willingness to continue to teach online. This paper presents the results of a synthesis of 67 empirical studies about faculty teaching online published between 1995 and 2015, using TAM2 constructs as an organizing framework. This validated model provided a lens for understanding research about faculty perceptions of the user-friendliness and ease of use of technology for online course delivery, as well as the overall experience of teaching online.

What are the online teaching competencies of the faculty members? The effectiveness of an online instruction requires more than technical knowledge but it is complemented by a constant evaluation of the course and the tools used to deliver courses online (Regala, 2019a; Regala, 2019b; Salendab, 2021).

Why is this important? It is important to mention that online teachers have to cope up with the roles of becoming the managers and facilitators of the learning process. It was mentioned in the literature the competencies that are unique for an effective online instruction that will help both teachers and students.

Which competencies can yield the greatest result? (1) Subject Matter Knowledge, (2) Instructional Representation and Strategies, (3) Knowledge of Students' Understanding, and (4) Technology Integration and Application.

Theoretical Framework

This study will be anchored based on Technological, Pedagogical, Content Knowledge (TPACK) and theory on Academic Motivation.
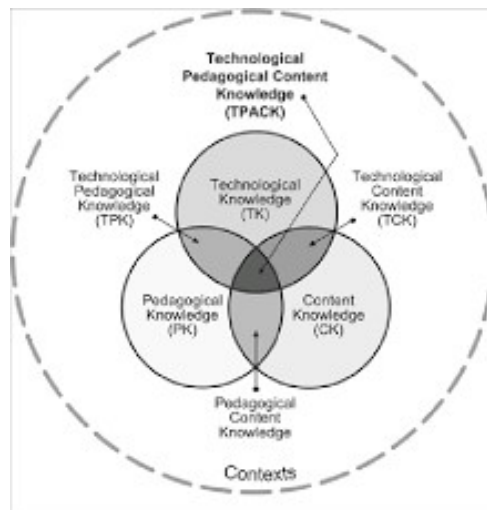

Figure 1. TPACK MODEL

TPACK Model

As stated from the article of Mishira and Koehler (2006), research in the area of educational technology has often been critiqued for a lack of theoretical grounding. In this article they proposed a conceptual framework for educational technology by building on Shulman's formulation of "pedagogical content knowledge" and extend it to the phenomenon of teachers integrating technology into their pedagogy. This framework is the result of 5 years of work on a program of research focused on teacher professional development and faculty development in higher education. It attempts to capture some of the essential qualities of teacher knowledge required for technology integration in teaching, while addressing the complex, multifaceted, and situated nature of this knowledge. They

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argue, briefly, that thoughtful pedagogical uses of technology require the development of a complex, situated form of knowledge that we call Technological Pedagogical Content Knowledge (TPCK).

The TPACK framework suggests that teachers need to have deep understandings of each of the above components of knowledge in order to orchestrate and coordinate technology, pedagogy, and content into teaching. Most importantly, TPACK is an emergent form of knowledge that goes beyond knowledge of content, pedagogy, and technology taken individually but rather exists in a dynamic transactional relationship (Bruce, 1997; Dewey & Bentley, 1949; Rosenblatt, 1978) between the three components (Koehler & Mishra, 2008; Mishra & Koehler, 2006). An important part of the TPACK framework is that TPACK does not exist in a vacuum but rather is grounded and situated in specific contexts as represented by the outer dotted circle in the TPACK diagram.

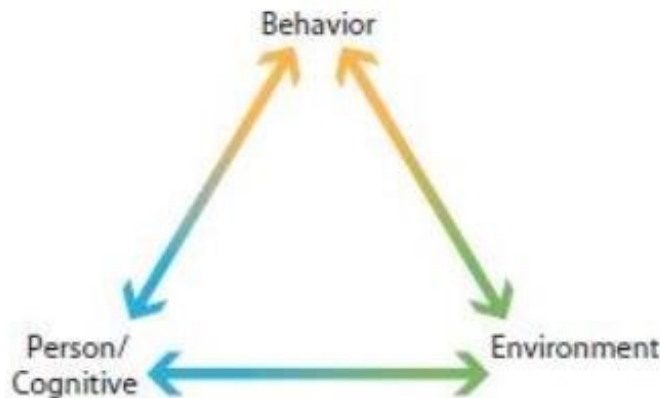To gauge the student academic motivation, the researcher used the social-cognitive theory.

Figure 2. Bandura's Social Cognitive Theory

Social Cognitive Theory (SCT) started as the Social Learning Theory (SLT) in the 1960s by Albert Bandura. It developed into the SCT in 1986 and posits that learning occurs in a social context with a dynamic and reciprocal interaction of the person, environment, and behavior. The unique feature of SCT is the emphasis on social influence and its emphasis on external and internal social reinforcement. SCT considers the unique way in which individuals acquire and maintain behavior, while also considering the social environment in which individuals perform the behavior. The theory takes into account a person's past experiences, which factors into whether behavioral action will occur. These past experiences influence reinforcements, expectations, and expectancies, all of which shape whether a person will engage in a specific behavior and the reasons why a person engages in that behavior (LaMorte, 2019).

From the perspective of Bandura's social cognitive theory. Motivation refers to processes that instigate and sustain goal-directed activities. Motivational processes are personal/internal influences that lead to outcomes such as choice, effort, persistence, achievement, and environmental regulation. Motivation has been a prominent feature of social cognitive theory from the early modeling research to the current conception involving the agency. The conceptual framework of reciprocal interactions is discussed, after which research is summarized on behavioral, environmental, and personal influences on motivation. Key internal motivational processes are goals and self-evaluations of progress, self-efficacy, social comparisons, values, outcome expectations, attributions, and self-regulation. Critical issues confronting the theory include diversity and culture, methodology, and long-term effects of interventions. (Schunk & Dibenedetto, 2019).

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Conceptual Framework
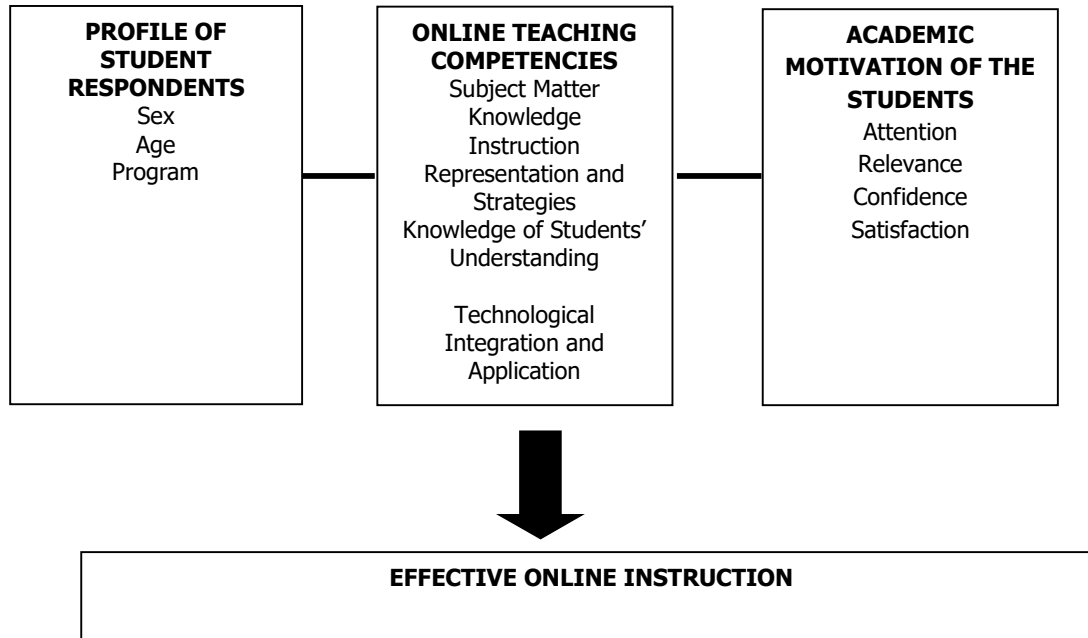
Figure 2. Research Paradigm

The figure above shows that in box 1, the researcher determined the student respondents' profile in terms of Sex, Age, and Program.

In box 2, the researcher determined the student respondents' assessment of their teacher's online teaching competencies in terms of Subject Matter Knowledge, Instruction Representation and Strategies, Knowledge of Students' Understanding, and Technological Integration and Application.

In box 3, the students' academic motivation is also assessed by the college freshmen in terms of Attention, Relevance, Confidence and Satisfaction.

Finally, the researcher determined the significant relationship between online teaching competencies and students' academic motivation respectively.

Objective:
This study assessed the online teaching competencies of faculty members and students' academic motivation at Guangdong Vocational and Technical University of Business and Technology in China toward effective online instruction. Specifically, it sought answers to the following questions:
1. What is the profile of the student respondents in terms of?
    1.1. Sex
    1.2. Age
    1.3. Program enrolled
2. What is the assessment of the student respondents on their teachers' level of online teaching competencies in terms of:
    2.1. Subject Matter Knowledge
    2.2. Instructional Representation and Strategies
    2.3. Knowledge of Students' Understanding
    2.4. Technology Integration and Application
3. Is there a significant difference in the assessment of the student respondents of their teachers' level of online teaching competencies when they are grouped according to their profile?

4. What is the self-assessment of the student respondents on their level of academic motivation in terms of:
    4.1. Attention
    4.2. Relevance
    4.3. Confidence
    4.4. Satisfaction
5. Is there a significant difference in the self-assessment of the student respondents on their academic motivation when they are grouped according to profile?
6. Is there a significant relationship between the assessment of the student respondents on their teachers' level of online teaching competencies with the self-assessment of students on their academic motivation?
7. Based on the results of the study, what enhancement program may be proposed?

Hypothesis of the Study
       The following hypothesis were tested:
   1. Ho1: There is no significant difference in the assessment of the student respondents of their teachers' level of online teaching competencies when they are grouped according to their profile.
   2. Ho2: There is no significant difference in the self-assessment of the student respondents on their academic motivation when they are grouped according to profile.
   3. Ho3: There is no significant relationship between the assessment of the student respondents on their teachers' level of online teaching competencies with the self-assessment of students on their academic motivation.

Significance of the Study
       This study will benefit the following groups or individuals:
       Students. They are the beneficiary of this study in which they will know their academic motivation and subject or learning areas that need to be improved likewise with the teachers' areas competencies.
       Parents. They will help their child to determine in which area to make them work harder which leads to the ultimate goal of having good academic motivation.
       Online Teachers. This study will be helpful for them to improve their online competencies in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding and technological integration and application for online learning environment.
       Human Resource Managers. It will be helpful to deepen and assess their online teacher competencies and the result of this study might help them to provide training for effective online instruction so that they will be ready for an advanced learning environment.
       University Administrators. The university administrators or superiors will be fully aware of the online teaching competence of the faculty members and students' academic motivation for them to provide remedial or advanced training toward effective online instruction.
       MOE Officials. This study might be helpful to the MOE in China because the university is responding to the demands for accountability and improvement as one of the Higher Education Institutions (HEIs). It will also be helpful to identify the learning outcomes through online teaching competencies and students' academic motivation surveys.
       Future Researchers. This study will guide future researchers who might be interested in doing a related study on online teaching competencies and student academic motivation that will lead them to effective online instruction.

Scope and Delimitation of the Study
       This study focused on the online teaching competencies of faculty members and academic motivation of students at Guangdong Vocational and Technical University of Business and Technology in China.
       The online teaching competencies of the faculty members was discussed the encompassing competencies on each of the following areas: subject matter knowledge, instruction representation, and strategies, knowledge of students' understanding, and technological integration and application. Moreover, the students will assess their academic motivation in terms of attention, relevance, confidence, and satisfaction.
       This study surveyed students out of the total population of 19,300 students across the 22 undergraduate majors. They were chosen using the random sampling technique which helped the researcher to assess the online

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teaching competencies of faculty members and student academic motivation. The researcher made use of simple random sampling employing the Qualtrics calculator.

The study was conducted during the first semester of the school year 2022-2023.

Definition of Terms

For a more comprehensive understanding of this research, the following terms to be used in the study are operationally defined.

Competencies refer to the capability to apply or use the set of related knowledge, skills, and abilities required to successfully perform 'critical work functions or tasks in a defined work setting. Competencies often serve as the basis for skill standards that specify the level of knowledge, skills, and abilities required for success in the workplace as well as potential measurement criteria for assessing competency attainment. Competence is a measure of both proven skills and proven knowledge.

Online Teaching refers to the process of educating others on virtual platforms. This type of teaching involves live classes, video conferencing, webinars, and other online tools. It provides a lot of freedom for individuals to learn, teach, and develop skills at their own pace.

Academic Motivation refers to the students' desire or interest in engaging with learning and their school experience (Hulleman, et al., 2016)

Online Instruction refers to a course that is completely delivered virtually. Professors may hold virtual lectures, use discussion boards to pose questions via a learning management system (LMS), and hold office hours using chat room software.

Faculty refers to the body of educators, i.e., professors, or teachers, whose aim is to impart knowledge to the learners at the school, college or university. Simply put, faculty means the teaching or academic staff of an educational system, that are hired with the purpose of providing education to the students.

Subject Matter Knowledge refers to the teacher's mastery of the subject matter that must be manifested and also refers to the knowledge in the discipline taught by a teacher which includes understanding how the course discipline advances along with what is known within the discipline.

Instruction Representation and Strategies refer to the teacher and how the instructional materials are presented in online classes. In addition, online teachers design activities that include modes of learning and be adapted to the new learning environment where the teachers must ensure the use of familiar analogies and explain the concepts of the subject matter.

Knowledge of Students' Understanding refers to the teacher where the students are given an assessment by asking students to estimate their knowledge and/or their confidence in their ability to respond correctly to questions wherein the students become more aware of what they do and do not know and the areas that need attention and understanding.

Technological Integration and Application refers to the teacher integration of technology like PowerPoint presentation and other multimedia or web technologies that will be used to integrate the content of the subject and enrich the teaching and instructional materials.

Content knowledge (CK) refers to any subject-matter knowledge that a teacher is responsible for teaching.

Pedagogical knowledge (PK) refers to teacher knowledge about a variety of instructional practices, strategies, and methods to promote students' learning.

Technology knowledge (TK) refers to teacher knowledge about traditional and new technologies that can be integrated into the curriculum.

Technological Content Knowledge (TCK) refers to knowledge of the reciprocal relationship between technology and content. Disciplinary knowledge is often defined and constrained by technologies and their representational and functional capabilities.

Pedagogical Content Knowledge (PCK) is to Shulman's (1986) notion of "an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction"

Technological Pedagogical Knowledge (TCK) refers to an understanding of technology can constrain and afford specific pedagogical practices.

Technological Pedagogical Content Knowledge (TPACK) refers to knowledge about the complex relations among technology, pedagogy, and content that enable teachers to develop appropriate and context-specific teaching strategies.

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Attention refers to the learners' interest.

Relevance refers to the process that shows the usefulness of the content wherein the learner can bridge the gap between content and the real world.

Confidence refers to the developing success expectation among the students and success expectation allowing the students to control their learning process.

Satisfaction refers to students' satisfaction with their achievement during the learning process.

METHODS

Research Design

This study used descriptive-comparative-correlational research. It utilized the gathering of data concerning the online competencies of teachers and students' academic motivation through the online distribution of questionnaires toward effective online instructions and faculty development strategies.

Descriptive design is suitable wherever the subjects vary among themselves, and one is interested to know the extent to which different conditions and situations are obtained among these subjects. The word survey signifies the gathering of data regarding the present conditions. A survey is useful in (1) providing the value of facts, and (2) focusing attention on the most important things to be reported.

Specifically, the type of descriptive aside from the generic descriptive design is status which is problem-solving and sought to answer questions to real facts relating to existing conditions. This is a technique of quantitative description that determines the prevailing conditions in a group of cases chosen for the study.

Descriptive comparative considers two variables (not manipulated) and establishes a formal procedure to compare and conclude that one is better than the other. After the comparative assessment, the researcher considered the evaluative part of the paper which carefully appraises the worthiness of the present study.

Research Locale

This study was conducted at the Guangdong Vocational and Technical University of Business and Technology in China.

Guangdong Vocational and Technical University of Business and Technology is located in Zhaoqing City, Guangdong Province. It is a full-time private undergraduate college approved by the Ministry of Education and a demonstration school of innovation and entrepreneurship education for college students in Guangdong Province.

The school's predecessor is Zhaoqing Oriental Talent School founded in 1996, Zhaoqing Industrial and Commercial Vocational School founded in 1997, Zhaoqing Industrial and Commercial Vocational College founded in 1999 and upgraded to Zhaoqing Industrial and Commercial Vocational and Technical College in 2019. In 2014, it was renamed Guangdong Vocational College of Industry and Commerce. In 2019, it was upgraded to Guangdong Polytechnic University of Industry and Commerce with the approval of the Ministry of Education.

By June 2022, the university has two campuses, Xinghu and Dawang, covering an area of 1,742 mu with a building area of 580,000 square meters. The total value of teaching and research equipment is 186 million yuan. There are 19300 full-time students and 1072 full-time teachers. It has 14 teaching units, offering 22 undergraduate majors and 53 junior majors.

Population and Sampling Technique

The researcher made use of students as respondents to the study. From the almost 19,300 students at Guangdong Vocational and Technical University of Business and Technology in China, the researcher used a simple random technique using the Qualtrics calculator for Samples.

Research Instruments

The researcher adopted a questionnaire that was used based on the context of this study. The questionnaires have two parts.

The first part assessed the online competencies of teachers in terms of subject matter knowledge, instructional representation, and strategies, knowledge of students' understanding, and technological integration and application. It was based on a study of Syn-Jong Jand and Yuhue Chang (2016) entitled Exploring the technological pedagogical and content knowledge TPACK of Taiwanese university physics instructors. From their study, the

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questionnaires were adopted from the original TPACK questionnaires and modify them based on the context of their study.

Likewise, in the second part of the questionnaires, the student's academic motivation levels from four dimensions in terms of attention, relevance, confidence, and satisfaction. The questionnaires were adopted from the study of Biyun Huang and Khe Foon Hew (2016) entitled Measuring Learners' Motivation Level in Massive Open Online Courses.

Data Gathering Procedure

The researcher created a WeChat form for questionnaires which will be sent online to the respondents. The researcher provided a link where the respondents had individual online access to questionnaires and was set a duration to disable the WeChat form. The researcher retrieved and received a real-time response from the respondents once they were done answering the online questionnaires.

Ethical Consideration

The researcher adapted the TPACK instrument, an original tool from Jang and Chen (2016). Only those that are related to the study are the ones considered for inclusion. Confidentiality was considered in enjoining respondents to participate in this research.

Statistical Treatment of the Data

In analyzing the data gathered, the following statistical tools were used in the study with 0.05 level of significance, using SPSS 22.0 software:

1. Frequency Count and Percentage
   These measures were used to describe the profile of the student respondents.
2. Weighted Mean
   This tool was used to compute for the average mean value obtained by each of the variables in this study. This will be used to determine the online teaching competencies of the faculty members and students' academic motivation.
3. T-test and ANOVA
   The t-test and/or Analysis of Variance or F-test was used by the researcher to determine if there are significant differences in online teaching competencies of the faculty members and students' academic motivation when the student respondents' profiles are taken as factors.
   The results were interpreted as follows:

Weight	Scale/Range	Description/Interpretation
4	3.51-4.00	Strongly Agree/ Very Highly Manifested
3	2.51-3.50	Agree/ Highly Manifested
2	1.51-2.50	Disagree/ Lowly Manifested
1	1.00-1.50	Strongly Disagree/ Very Lowly Manifested

4. Pearson's r Correlation Analysis
   The researcher made use of Pearson's r correlation analysis to determine the significant relationship between the online teaching competencies of the faculty members and students' academic motivation respectively.

Decision Criteria

The analysis of the hypothesis was carried out using the 0.05 level of significance. The null hypotheses were accepted if the computed significance value is greater than the set value at 0.05.

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RESULTS and DISCUSSION

Profile of the Student Respondents

Table 3.1 shows the demographic profile of the student respondents in terms of their age, sex, and section.

Table 3.1
Frequency Distribution of the Student Respondents' Profile

Profile	Frequency	Percentage
Age		
18-20 years old	154	38.5%
21-23 years old	107	26.8%
24 years old and above	139	34.8%
Total	**400**	**100%**
Sex		
Male	200	50%
Female	200	50%
Total	**400**	**100%**
Course		
Accounting	27	6.8%
Architecture	17	4.3%
Business Administration	10	2.5%
Communication	20	5%
Computer Engineering	20	5%
Computer Science	19	4.8%
Criminology	20	5%
Custom Administration	28	7%
Electronics and Communication Engineering	27	6.8%
Entrepreneurship		
Hospitality Management		
Industrial Engineering	21	5.3%
Information Technology	21	5.3%
Management Accounting	26	6.5%
Office Administration	13	3.3%
Real Estate Management	28	7%
Science in Psychology	21	5.3%
Secondary Education	21	5.3%
Tourism Management	26	6.5%
	14	3.5%
	21	5.3%
Total	**400**	**100%**

In terms of age, one hundred and fifty-four (154) or about 38.5% of the student respondents are within 18 to 20 years old, one hundred and seven (107) or about 26.8% of the student respondents are within 21 to 23 years old, and one hundred and thirty-nine (139) or about 34.8% of the student respondents are within 24 years old and above. This means that majority of the student respondents are within 18 to 20 years old. This may be taken to mean that the students are in the appropriate grade level for their age.

In terms of sex, two hundred (200) or about 50% of the student respondents are male and the remaining two-hundred (200) or about 50% of the student respondents are male. This means that the student respondents are equally divided among males and females in terms of sex. This illustrates that there are equal opportunities for male students and female students to become a part of the study.

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In terms of course, twenty-seven (27) or about 6.8% of the student respondents are undertaking accounting, seventeen (17) or about 4.3% of the student respondents are undertaking architecture, ten (10) or about 5% of the student respondents are undertaking business administration, twenty (20) or about 5% of the student respondents are undertaking communication, twenty (20) or about 5% of the student respondents are undertaking computer engineering, nineteen (19) or about 4.8% of the student respondents are undertaking computer science, twenty (20) or about 5% of the student respondents are undertaking criminology, twenty-eight (28) or about 7% of the student respondents are undertaking custom administration, twenty-seven (27) or about 6.8% of the student respondents are undertaking electronics and communication engineering, twenty-one (21) or about 5.3% of the student respondents are undertaking entrepreneurship, twenty-one (21) or about 5.3% of the student respondents are undertaking hospitality management, twenty-six (26) or about 6.5% of the student respondents are undertaking industrial engineering, thirteen (13) or about 3.3% of the student respondents are undertaking information technology, twenty-eight (28) or about 7% of the student respondents are undertaking management accounting, twenty-one (21) or about 5.3% of the student respondents are undertaking office administration, twenty-one (21) or about 5.3% of the student respondents are undertaking real estate management, twenty-six (26) or about 6.5% of the student respondents are undertaking science in psychology, fourteen (14) or about 3.5% of the student respondents are undertaking secondary education, and twenty-one (21) or about 5.3% of the student respondents are undertaking tourism management. This means that majority of the student respondents are undertaking degree in management accounting. This may be taken to mean that the students are undertaking.

Assessment of Student Respondents on the Competencies of the Teachers

Table 3.2 to 3.5 show the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application.

Table 3.2
Assessment of Student-Respondents on the Competencies of the Teachers in terms of Subject Matter Knowledge

	Mean	Qualitative Description	Interpretation
1. My teacher explains clearly the content of the subject.	2.26	Disagree	Lowly Manifested
2. My teacher knows how theories or principles of the subject have been developed.	2.25	Disagree	Lowly Manifested
3. My teacher selects the appropriate content for students.	2.26	Disagree	Lowly Manifested
4. My teacher knows the answers to questions that we ask about the subject.	2.29	Disagree	Lowly Manifested
5. My teacher knows the whole structure and direction of this subject matter.	2.28	Disagree	Lowly Manifested
6. My teacher makes me clearly understand the objectives of this course.	2.28	Disagree	Lowly Manifested
Composite Mean	**2.27**	**Disagree**	**Lowly Manifested**

Legend: 3.51-4.00 Strongly Agree/ Very Highly Manifested; 2.51-3.50 Agree/ Highly Manifested; 1.51-2.50 Disagree/ Lowly Manifested; 1.00-1.50 Strongly Disagree / Not Manifested

Taking into consideration the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application, the highest mean of 2.29, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of subject matter knowledge being lowly manifested, was found for item 4 which states that the teachers knows the answers to questions that we ask about the subject. This is a clear way of telling the students that the teacher knows what he or

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she are talking about and that he or she has the mastery of the subject matter. This is an important aspect of teaching because the students need to know if you can be relied upon in giving credible and truthful information.

On the other hand, the lowest mean of 2.25, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of subject matter knowledge being lowly manifested, was found for item 2 which states that the teachers knows how theories or principles of the subject have been developed. An understanding of learning theories helps teachers connect to all different kinds of students. Teachers can focus on different learning styles to reach different students, creating teaching that focuses directly on student needs and aptitudes.

The overall mean of 2.27 shows that the students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of subject matter knowledge are lowly manifested. Effective teaching requires teachers to possess detailed subject matter knowledge intertwined with knowledge of pedagogy, curriculum, student behavior, learning objectives and outcomes.

Teachers have responsibilities to gather information to determine what subject content to teach, develop curriculum, determine the strategies and methods for teaching, impart knowledge, evaluate teaching and learning and finally provide feedback. Teachers can only teach "what" they know in the ways they know "how" to teach. Thus, the significance of having high quality teachers in the teaching-learning relationship cannot be over-emphasized.

Agoro and Akinsola (2013) and Ladipo (2013), for instance, suggested that poor teacher quality is one of the significant factors responsible for the consistently poor performance of secondary school students in public examinations in the country. Teacher quality is generally believed to be basically dependent on the nature of the training that teachers receive and there is no doubt that teachers differ in their depth of knowledge of the "what" to teach and the "how" to teach basically because of disparities in their own pre-service training. High rates of failure will be unexpected when the teachers and their teaching are very positive, and the results obtained contradict their input. It is unwanted when the effort by the teacher is not strong enough to bring about the expected success. Though the study of secondary school students in Kenya by Waseka, Simatwa and Okwach (2016) showed the expected result that teachers with the Bachelor of Education qualification significantly influenced their students' performance, it also revealed the unexpected outcome with the discovery that teachers with the Master of Education or Diploma qualifications did not significantly influence the performance of their students.

Table 3.3
Assessment of Student-Respondents on the Competencies of the Teachers in terms of Instructional Representation and Strategies

	Mean	Qualitative Description	Interpretation
1. My teacher uses appropriate examples to explain concepts related to subject matter.	2.28	Disagree	Lowly Manifested
2. My teacher uses familiar analogies to explain concepts of subject matter	2.22	Disagree	Lowly Manifested
3. My teacher's teaching methods keep me interested in this subject.	2.21	Disagree	Lowly Manifested
4. My teacher uses demonstrations to help explaining the main concept.	2.24	Disagree	Lowly Manifested
5. My teacher uses a variety of teaching approaches to transform subject matter into comprehensible knowledge.	2.25	Disagree	Lowly Manifested
6. My teacher creates a classroom circumstance to promote my interest for learning	2.21	Disagree	Lowly Manifested
Composite Mean	**2.23**	**Disagree**	**Lowly Manifested**

Legend: 3.51-4.00 Strongly Agree/ Very Highly Manifested; 2.51-3.50 Agree/ Highly Manifested; 1.51-2.50 Disagree/ Lowly Manifested; 1.00-1.50 Strongly Disagree / Not Manifested

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Taking into consideration the assessment of the student respondents on the competency of the teachers in terms of instructional representation and strategies, the highest mean of 2.28, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of instructional representation and strategies being lowly manifested, was found for item 1 which states that the teacher uses appropriate examples to explain concepts related to subject matter. Examples are used deductively when they are given as 'exercises'. These examples are usually given after teaching a particular procedure. The initial purpose is to assist retention by repetition of procedure and then eventually for students to develop fluency with it. Examples are also used to help the students understand unfamiliar or difficult concepts, and they tend to be easier to remember.

On the other hand, the lowest mean of 2.21, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of instructional representation and strategies being lowly manifested, was found for items 3 and 6 which respectively states that the teacher's teaching methods keep the students interested in the subject and that teacher creates a classroom circumstance to promote my interest for learning. Interest is a powerful motivational process that energizes learning, guides academic and career trajectories, and is essential to academic success. Interest is both a psychological state of attention and affect toward a particular object or topic, and an enduring predisposition to reengage over time. Understanding the students' interests will help teachers to provide them with quality learning opportunities. By giving them the opportunity to explore areas they are interested in – for example, the environment – they will be more likely to engage with the learning process.

The overall mean of 2.23 shows that the students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of instructional representation and strategies are lowly manifested. Educators who use instructional strategies allow students to make meaningful connections between concepts learned in class and real-life situations. They offer an opportunity for students to demonstrate their knowledge and course correct on their own when needed.

Instructional strategies are decisions about organizing people, materials and ideas to provide learning (Nwachukon, 2005). Weston and Cranton (1986) in Onweh and Akpan (2014) viewed instructional strategies as both the teaching method and the materials used in the process of teaching. Instructional strategies determine the approach a teacher may take to achieve learning objectives. Some of these instructional strategies include demonstration, discussion, inquiry and lecture among others. According to Saskatchewan Education (2002), Instructional skills are the most specific category of teaching behaviours. They are necessary for procedural purposes and for structuring appropriate learning experiences for students. These include such techniques as questioning, discussion, directing giving, explaining and demonstrating. Hence, students learn by doing, making writing designing, creating and solving (Davis, 1993, in Onweh & Akpan 2014).

Skills in the selection and utilization of appropriate instructional strategies are required by the teacher for effective teaching. There is no one best approach to instruction. Teaching effectively demands that the teacher possess some basic ability to organize, co-ordinate and utilize personal qualities, objectives and competency in lesson preparation, presentation and evaluation. Besides, he must be able to motivate the learners, make students active participants in learning, and use appropriate strategies and facilities to enhance effectiveness in instructions. Some researchers recommended eclectic methods (combination of strategies). Teachers are also expected to implement a variety of instructional strategies in order to meet the objectives of the program as well as to address individual student interest and needs (Saskatchewan Education, 2009)

Table 3.4
Assessment of Student-Respondents on the Competencies of the Teachers in terms of Knowledge of Students' Understanding

	Mean	Qualitative Description	Interpretation
1. My teacher realizes students' prior knowledge before class.	2.28	Disagree	Lowly Manifested
2. My teacher knows students' learning difficulties of subject before class.	2.27	Disagree	Lowly Manifested
3. My teacher's questions evaluate my understanding of a topic.	2.32	Disagree	Lowly Manifested
4. My teacher's assessment methods evaluate my understanding of the subject.	2.30	Disagree	Lowly Manifested

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5. My teacher uses different approaches (questions, discussion, etc.) to find out whether I understand.	2.37	Disagree	Lowly Manifested
6. My teacher's assignments facilitate my understanding of the subject.	2.29	Disagree	Lowly Manifested
Composite Mean	**2.30**	**Disagree**	**Lowly Manifested**

Legend: 3.51-4.00 Strongly Agree/ Very Highly Manifested; 2.51-3.50 Agree/ Highly Manifested; 1.51-2.50 Disagree/ Lowly Manifested; 1.00-1.50 Strongly Disagree / Not Manifested

Taking into consideration the assessment of the student respondents on the competency of the teachers in terms of knowledge of students' understanding, the highest mean of 2.30, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of knowledge of students' understanding being lowly manifested, was found for item 4 which states that the teacher's assessment methods evaluate my understanding of the subject. Often assessment is focused on improving students' learning, but there is also an opportunity to showcase what a department or program is doing as well. It could be used to help improve the learning opportunities for students. Well-crafted assessments will help teachers gauge the levels of student understanding, help the teacher to correct any student misunderstandings, and provide instruction needed to move thinking and learning along.

On the other hand, the lowest mean of 2.27, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of knowledge of students' understanding being lowly manifested, was found for item 2 which states that the teacher knows students' learning difficulties of subject before class. This shows that the students are clamoring for teachers to use diagnostic assessments. Diagnostic assessments are intended to help teachers identify what students know and can do in different domains to support their students' learning. These kinds of assessments may help teachers determine what students understand in order to build on the students' strengths and address their specific needs.

The overall mean of 2.30 shows that the students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of knowledge of students' understanding are lowly manifested. Assessment is an integral part of instruction, as it determines whether the goals of education are being met. Assessment affects decisions about grades, placement, advancement, instructional needs, and curriculum. Student assessment enables instructors to measure the effectiveness of their teaching by linking student performance to specific learning objectives. As a result, teachers are able to institutionalize effective teaching choices and revise ineffective ones in their pedagogy.

According to Kemsker, Gerlinde and Monitzer (2020), teaching and learning processes should be continuously developed due to changes in educational requirements as well as social and technological changes. The researchers aim is to clarify the effects of digital transformation on educational institutions and to outline the challenges that arise and need to be addressed in this context. Wherein challenges facing higher education institutions, as a result of digital transformation will be discussed and strategies for the further development of higher education regarding digital transformation. In addition, this study focuses on the self- assessment of the digital competencies of students is outline and the results will be presented for further development in technology-supported teaching and learning processes at higher education institutions. The implementation of technology-supported teaching and learning settings and the rethinking of present teaching content is seen as both a challenge and an opportunity for preparing students as well as lecturers for digital transformation. With regard to the current COVID-19 situation, this is a challenge that must be met sooner rather than later.

Table 3.5
Assessment of Student-Respondents on the Competencies of the Teachers in terms of Technology Integration and Application

	Mean	Qualitative Description	Interpretation
1. My teacher knows how to use multimedia and web technologies (e.g. power point, animation, teaching website, blog, and distance learning etc.) for teaching.	2.26	Disagree	Lowly Manifested

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2. My teacher is able to choose multimedia and web technologies which enhance his/her teaching for specific course unit.	2.27	Disagree	Lowly Manifested
3. My teacher is able to use technology to enhance our understanding and learning of lessons.	2.31	Disagree	Lowly Manifested
4. My teacher is able to use technology to enrich the teaching content and materials.	2.33	Disagree	Lowly Manifested
5. My teacher is able to integrate content, technology, and teaching methods in his/her teaching.	2.27	Disagree	Lowly Manifested
6. My teacher is able to choose diverse technologies and teaching methods for a specific course unit.	2.26	Disagree	Lowly Manifested
Composite Mean	**2.28**	**Disagree**	**Lowly Manifested**

Legend: 3.51-4.00 Strongly Agree/ Very Highly Manifested; 2.51-3.50 Agree/ Highly Manifested; 1.51-2.50 Disagree/ Lowly Manifested; 1.00-1.50 Strongly Disagree / Not Manifested

Taking into consideration the assessment of the student respondents on the competency of the teachers in terms of technology integration and application, the highest mean of 2.33, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of technology integration and application being lowly manifested, was found for item 4 which states that the teacher is able to use technology to enrich the teaching content and materials. By integrating technology into existing curricula, as opposed to using it solely as a crisis-management tool, teachers can harness online learning as a powerful educational tool. The effective use of digital learning tools in classrooms can increase student engagement, help teachers improve their lesson plans, and facilitate personalized learning. It also helps students build essential 21st-century skills.

On the other hand, the lowest mean of 2.26, with the qualitative description of the students disagreeing and is interpreted as the competencies of the teachers in terms of technology integration and application being lowly manifested, was found for items 1 and 6 which states that the teacher knows how to use multimedia and web technologies (e.g. power point, animation, teaching website, blog, and distance learning etc.) for teaching and that the teacher is able to choose diverse technologies and teaching methods for a specific course unit. Utilizing different types of technology in the classroom, including a virtual classroom, creates learners who are actively engaged with learning objectives. The implementation of technology also creates pathways for differentiated instruction to meet the unique needs of students as individual learners within a broader classroom climate.

The overall mean of 2.27 shows that the students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of technology integration and application are lowly manifested. Integration of technology in education simply refers to the use of technology to enhance the student learning experience. Utilizing different types of technology in the classroom, including a virtual classroom, creates learners who are actively engaged with learning objectives. The implementation of technology also creates pathways for differentiated instruction to meet the unique needs of students as individual learners within a broader classroom climate.

Being an essential part of the present time, Information and communication technology (ICT) significantly influences all domains of human life (Gnambs, 2021). Similarly, ICT has also transformed the education sector and turned instructional practices into more interactive and productive (Lin et al., 2017), as it offers various tools which are used in traditional as well as online teaching spaces and assists in building a proactive classroom environment (Jogezai et al., 2021). Technology-incorporated instructional practices not only enhance the quality of teaching (Akram et al., 2021a) but also enable students to develop their skills, boost their motivation, and enhance their knowledge and information efficiently (Chen et al., 2018). During the COVID-19 global crisis, when the entire world's activities across all domains of human lives got restricted, ICT played a supporting role in sustaining teaching-learning activities on the one hand (Thaheem et al., 2021). While on the other hand, ICT-integrated teaching and learning provided a flexible approach and better access to learning opportunities as a substitute for face-to-face instruction (Akram et al., 2021b). However, teachers faced difficulties in making the best use of ICT in their instructional practices due to inadequate technological competencies, yet the transitory phase improved their digital

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skills. Furthermore, the utilization of ICT in education for enhancing instructional practices' effectiveness has been considered crucial for the last few decades worldwide (U.S. Department of Education, 2017). Several studies also highlighted the significance of ICT-integrated instructional approaches in meeting the educational needs of the learners by increasing their thoughtfulness and keeping students motivated, which is viewed as a significant predictor of students' educational growth (Xu et al., 2021). Liu et al. (2022) also identified that technology-integrated learning increases the cognitive understanding and learning achievements of students.

Self-assessment of the Student Respondents on their Level of Academic Motivation

Table 3.6 shows the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, satisfaction.

Table 3.6
Self-assessment of Student-Respondents on their Academic Motivation

	Mean	Qualitative Description	Interpretation
1. There was something interesting at the beginning of this online course that got my attention.	2.28	Disagree	Lowly Manifested
2. These materials are eye-catching.	2.34	Disagree	Lowly Manifested
3. The quality of the writing helped to hold my attention.	2.29	Disagree	Lowly Manifested
4. The way the information is arranged on the pages helped keep my attention.	2.40	Disagree	Lowly Manifested
5. This course has things that stimulated my curiosity.	2.39	Disagree	Lowly Manifested
6. The variety of reading passages, exercise, illustrations, etc., helped keep my attention on the course.	2.37	Disagree	Lowly Manifested
7. It is clear to me how the content of this material is related to things I already know.	2.35	Disagree	Lowly Manifested
8. There were stories, pictures, or examples that showed me how this material could be important to some people.	2.48	Disagree	Lowly Manifested
9. The content of this material is relevant to my interests.	2.41	Disagree	Lowly Manifested
10. There are explanations or examples of how people use the knowledge in this course.	2.30	Disagree	Lowly Manifested
11. The content and style of writing in this course convey the impression that its content is worth knowing.	2.49	Disagree	Lowly Manifested
12. The content of this course will be useful to me.	2.31	Disagree	Lowly Manifested
13. When first looked at this course, I had the impression that It would be easy for me.	2.30	Disagree	Lowly Manifested
14. After reading the introductory information, I felt confident that I know what I was supposed to learn from this course.	2.33	Disagree	Lowly Manifested
15. As I worked on this course, I was confident that I could learn the content.	2.33	Disagree	Lowly Manifested
16. After working on this course for a while, I was confident that I would be able to pass	2.24	Disagree	Lowly Manifested

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a test on it.			
17. I could really understand the material used in this course.	2.29	Disagree	Lowly Manifested
18. The good organization of the content helped me to be confident that I would learn this material.	2.35	Disagree	Lowly Manifested
19. Completing the exercises in this course gave me a satisfying feeling of accomplishment.	2.34	Disagree	Lowly Manifested
20. I enjoyed this course so much that I would like to know more about this topic.	2.35	Disagree	Lowly Manifested
21. I really enjoyed studying this course.	2.25	Disagree	Lowly Manifested
22. The wording of feedback after the exercises, or of other comments in this course, helped me feel rewarded for my effort.	2.28	Disagree	Lowly Manifested
23. I felt good to successfully complete this course.	2.35	Disagree	Lowly Manifested
24. It was a pleasure to work on such a well-designed course.	2.31	Disagree	Lowly Manifested
Composite Mean	**2.34**	**Disagree**	**Lowly Manifested**

Legend: 3.51-4.00 Strongly Agree/ Very Highly Manifested; 2.51-3.50 Agree/ Highly Manifested; 1.51-2.50 Disagree/ Lowly Manifested; 1.00-1.50 Strongly Disagree / Not Manifested

The self-assessment of the student respondents on their level of academic motivation revealed that the highest mean of 2.48, with the qualitative description of the students disagreeing and is interpreted as the academic motivation of the students being lowly manifested, was found for item 8 which states that the students observe the teachers using stories, pictures, or examples that showed the students how this material could be important to some people. Learning materials can significantly increase learners' achievement by supporting learning. For example, an educational video may provide a learner with new insights and an appealing worksheet may provide the learner with new opportunities to practice a new skill gained in class. Studies have shown that students taught with instructional materials performed significantly better than those taught without instructional materials and also that the use of instructional materials generally improved students' understanding of concepts and led to high academic achievements.

On the other hand, the lowest mean of 2.24, the qualitative description of the students disagreeing and is interpreted as the academic motivation of the students being lowly manifested, was found for item 16 which states that the students, after working on the course for a while, were confident that they would be able to pass a test on it. Students use and develop competencies when they encounter unfamiliar or challenging situations. Competencies help students draw and build upon what they know, how they think and what they can do. This indicates that the students gauge their knowledge and understanding of the lesson and would usually know if they know enough to pass the exam to be given to them.

The overall mean of 2.34 shows that the students disagree with the general statements about their motivation on learning and shows that the academic motivation of the students are being lowly manifested. This is a problematic finding since if students aren't motivated, it is difficult, if not impossible, to improve their academic achievement, no matter how good the teacher, curriculum or school is. Moreover, unmotivated students can disengage other students from academics, which can affect the environment of an entire classroom or school. Students may feel unmotivated or disinterested due to a number of different reasons. Students are demotivated by the structure and allocation of rewards. Students do not perceive the classroom climate as supportive. Students have other priorities that compete for their time and attention. Individual students may suffer from physical, mental, or other personal problems that affect motivation.

Students' competence satisfaction plays a crucial role for motivation, achievement, and individual growth (Ryan & Deci, 2017; Vansteenkiste et al., 2020; Vasconcellos et al., 2020). Therefore, in the literature, researchers

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have linked several teaching practices to students' competence satisfaction (e.g., perceptions of structure and autonomy support) that can be addressed to support students' competence satisfaction in different educational settings (e.g., school, extracurricular learning; Jang et al., 2010; Guay et al., 2017; Eckes et al., 2018; Aelterman et al., 2019; Ryan and Deci, 2020; Vasconcellos et al., 2020). However, in the context of self-determination theory (SDT), studies investigating the factors that contribute to students' competence satisfaction have, in part, provided controversial findings. For instance, structure has been beneficial for students' competence satisfaction when provided in an autonomy-supportive way (Eckes et al., 2018). Autonomy support has, however, partly been negatively correlated with individuals' competence satisfaction (Steingut et al., 2017; Vasconcellos et al., 2020). Moreover, little is known about students' views on why their competence satisfaction evolves in class. One reason is that students' need satisfaction has rarely been studied qualitatively (Hassandra et al., 2003). However, qualitative studies are an important step in order to understand the development and the manifestation of subjective experiences in social contexts through specific perspectives (Ryan & Deci, 2020; Vansteenkiste et al., 2020).

Learning motivation promotes the achievement of students' learning outcomes of students. This is also true of international students (Bailey and Phillips, 2015; Chue and Nie, 2016). The study by Deci and Ryan (1985) on self-determination theory identified that individuals tend to pursue achievement of their basic psychological needs of competency, self-determination and belonging. This theory holds that when students are intrinsically motivated, their behavior is the consequence of their interest in the activity itself as well as their personal beliefs (Deci and Ryan, 2000). Both aspects have been researched and have been found to significantly and positively predict learning performance (Zhu & Leung, 2011). Motivation can be divided into intrinsic and extrinsic motivation (Deci and Ryan, 2000), and further subdivided according to the degree of individual autonomy in behavior. Intrinsic motivation is divided into intrinsic motivation for knowledge, achievement and stimulation. Whereas, extrinsic motivation includes identified regulation, introjected regulation, and external regulation. External regulation focuses on external conditions, while introjected regulation and identified regulation internalize the activity outcomes. These two latter regulations contain more self-determination aspects (Chirkov et al., 2007). A learning requirement could (theoretically and positively) affect the students' sense of self-regulation and identification by making students internalize the extrinsic motivators that push them to learn.

Significant Differences in the Competencies of the Teachers

Table 3.7 to 3.9 show the significant differences in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application when the respondent's demographic profiles are taken as test factors.

Table 3.7
Differences in the Assessment of Student-Respondents on the Competencies of the Teachers According to Age

	Group	Mean	SD	F-value	Sig	Decision on Ho	Interpretation
Age	18-20 years old	2.28	.20	.22	.79	Accepted	Not Significant
	21-23 years old	2.27	.20				
	24 years old and above	2.27	.20				
	Total	2.27	.20				

In terms of age, a computed F-value of 0.22 and a significance value of 0.79 were identified. Since the significance value is greater than 0.05 level of significance, the null hypothesis is accepted which means that there is no significant difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and

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technology integration and application when their age is taken as a test factor. This means that there is no difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application despite the difference in the age of the students. This may be taken to mean that the older and younger students have similar assessment of the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application. Thus, the factor age does not affect the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application.

Table 3.8
Differences in the Assessment of Student-Respondents on the Competencies of the Teachers According to Sex

	Group	Mean	SD	F-value	Sig	Decision on Ho	Interpretation
Sex	Male	2.26	.19	1.31	.73	Accepted	Not Significant
	Female	2.28	.21				
	Total	2.27	.20				

In terms of sex, a computed F-value of 1.31 and a significance value of 0.79 were identified. Since the significance value is greater than 0.05 level of significance, the null hypothesis is accepted which means that there is no significant difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application when the respondents are grouped according to sex. This means that there is no difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application although there is a difference in the sex of the students. This may be taken to mean that the male and female students have similar assessment of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application. Thus, the factor sex does not affect the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application.

Table 3.9
Differences in the Assessment of Student-Respondents on their Competencies of the Teachers According to Course

	Group	Mean	SD	F-value	Sig	Decision on Ho	Interpretation
Course	Accounting	2.26	.20	.44	.97	Accepted	Not Significant
	Architecture	2.31	.21				
	Business Administration	2.21	.19				
	Communication	2.27	.19				
	Computer Engineering	2.21	.16				

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Computer Science	2.28	.17					
Criminology	2.30	.18					
Custom Administration	2.25	.15					
Electronics and Communication Engineering	2.31	.19					
Entrepreneurship	2.27	.25					
Hospitality Management	2.28	.19					
Industrial Engineering	2.27	.24					
Information Technology	2.27	.16					
Management Accounting	2.30	.20					
Office Administration	2.29	.26					
Real Estate Management	2.31	.22					
Science in Psychology	2.22	.22					
Secondary Education	2.25	.19					
Tourism Management	2.28	.19					
Total	2.27	.20					

In terms of course, a computed F-value of 0.44 and a significance value of 0.97 were identified. Since the significance value is greater than 0.05 level of significance, the null hypothesis is accepted which means that there is no significant difference in the assessment of the student respondents on the competency of the teachers in terms of

subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application when their course is taken as a test factor. This means that there is no difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application although there is a difference in the courses taken by the students. This may be taken to mean that the students from different courses have the same assessment of the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application. Thus, the factor course does not affect the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application.

Significant Differences in the Self-assessment of the Student Respondents on their Level of Academic Motivation

Table 3.10 to 3.12 show the significant differences in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction when the respondent's demographic profiles are taken as test factors.

Table 3.10
Differences in the Self-assessment of the Student Respondents on their Level of Academic Motivation of the Teachers According to Age

	Group	Mean	SD	F-value	Sig	Decision on Ho	Interpretation
Age	18-20 years old	2.34	.23	.20	.81	Accepted	Not Significant
	21-23 years old	2.33	.24				
	24 years old and above	2.34	.24				
	Total	2.34	.23				

In terms of age, a computed F-value of 0.20 and a significance value of 0.81 were identified. Since the significance value is greater than 0.05 level of significance, the null hypothesis is accepted which means that there is no significant difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction when their age is taken as a test factor. This means that there is no difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction despite the difference in the age of the students. This may be taken to mean that the older and younger students have similar self-assessment on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction. Thus, the factor age does not affect the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction.

Table 3.11
Differences in the Self-assessment of the Student Respondents on their Level of Academic Motivation According to Sex

	Group	Mean	SD	F-value	Sig	Decision on Ho	Interpretation
Sex	Male	2.35	.24	.37	.85	Accepted	Not Significant
	Female	2.33	.23				

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Total	2.34	.24				

In terms of sex, a computed F-value of 0.37 and a significance value of 0.85 were identified. Since the significance value is greater than 0.05 level of significance, the null hypothesis is accepted which means that there is no significant difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction when the respondents are grouped according to sex. This means that there is no difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction although there is a difference in the sex of the students. This may be taken to mean that the male and female students have similar self-assessment of their level of academic motivation in terms of attention, relevance, confidence, and satisfaction. Thus, the factor sex does not affect the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction.

Table 3.12
Differences in the Self-assessment of the Student Respondents on their Level of Academic Motivation According to Course

	Group	Mean	SD	F-value	Sig	Decision on Ho	Interpretation
Course	Accounting	2.39	.21	.144	.10	Accepted	Not Significant
	Architecture	2.27	.26				
	Business Administration	2.43	.28				
	Communication	2.38	.23				
	Computer Engineering	2.31	.27				
	Computer Science	2.32	.18				
	Criminology	2.34	.22				
	Custom Administration	2.36	.25				
	Electronics and Communication Engineering	2.31	.26				
	Entrepreneurship	2.26	.30				
	Hospitality Management	2.24	.17				
	Industrial Engineeri	2.45	.29				

ng						
Information Technology	2.33	.17				
Management Accounting	2.27	.19				
Office Administration	2.30	.21				
Real Estate Management	2.45	.26				
Science in Psychology	2.33	.21				
Secondary Education	2.29	.16				
Tourism Management	2.37	.18				
Total	2.34	.23				

In terms of course, a computed F-value of 0.14 and a significance value of 0.10 were identified. Since the significance value is greater than 0.05 level of significance, the null hypothesis is accepted which means that there is no significant difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction when their course is taken as a test factor. This means that there is no difference in the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction although there is a difference in the student's course. This may be taken to mean that the students in the different courses have the same self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction. Thus, the factor course does not affect the self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction.

Significant Differences in the Assessment of Student-Respondents on the Competencies of the Teachers and the Self-assessment of the Student Respondents on their Level of Academic Motivation

Table 3.13 show the difference in the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and the self-assessment of the student respondents on their level of academic motivation in terms of: attention, relevance, confidence, satisfaction.

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Table 3.13
Difference on Assessment of the Student-Respondents on the Competencies of the Teachers and the Self-assessment of the Student Respondents on their Level of Academic Motivation

Variable	Profile	Mean	SD	R-value	Sig	Decision on Ho	Interpretation
Assessment	Competencies of the Teachers	2.27	.20	.03	.48	Accepted	Not Significant
	Level of Academic Motivation	.234	.23				

Comparing the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and their self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction, a computed R-value of .03 and a significance value of 0.48 were identified. The R-value indicates a weak correlation between the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and their self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction. This means that the two variables do have a relationship, but the relationship is very weak and that an increase in one may have a weak effect on the other variable. The correlation co-efficient also indicates that the relationship between the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and their self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction is positive. This may mean that as the other variable increases, the same is observed in the other. This illustrates that the higher the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application is, the higher their self-assessment of their level of academic motivation in terms of: attention, relevance, confidence, and satisfaction will also be. Hence, the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and their self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction were found to have a weak positive correlation.

Conclusion

1. The demographic profile of the student respondents showed that majority of the student respondents are within 18 to 20 years old, are equally divided among males and females in terms of sex and are undertaking degree in management accounting. This may be taken to mean that the students are undertaking.
2. The students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of subject matter knowledge are lowly manifested. Effective teaching requires teachers to possess detailed subject matter knowledge intertwined with knowledge of pedagogy, curriculum, student behavior, learning objectives and outcomes.
3. The students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of instructional representation and strategies are lowly manifested. Educators who use instructional strategies allow students to make meaningful connections between concepts learned in class and real-life situations. They offer an opportunity for students to demonstrate their knowledge and course correct on their own when needed.
4. The students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of knowledge of students' understanding are lowly manifested. Assessment is an integral part of instruction, as it determines whether the goals of education are being met. Assessment affects decisions about

grades, placement, advancement, instructional needs, and curriculum. Student assessment enables instructors to measure the effectiveness of their teaching by linking student performance to specific learning objectives. As a result, teachers are able to institutionalize effective teaching choices and revise ineffective ones in their pedagogy.

5. The students disagree about the competencies of the teachers and shows that the competencies of the teachers in terms of technology integration and application are lowly manifested. Integration of technology in education simply refers to the use of technology to enhance the student's learning experience. Utilizing different types of technology in the classroom, including a virtual classroom, creates learners who are actively engaged with learning objectives. The implementation of technology also creates pathways for differentiated instruction to meet the unique needs of students as individual learners within a broader classroom climate.

6. The students disagree about the general statements about their motivation on learning and shows that the academic motivation of the students is being lowly manifested. This is a problematic finding since if students aren't motivated, it is difficult, if not impossible, to improve their academic achievement, no matter how good the teacher, curriculum or school is. Moreover, unmotivated students can disengage other students from academics, which can affect the environment of an entire classroom or school. Students may feel unmotivated or disinterested due to a number of different reasons. Students are demotivated by the structure and allocation of rewards. Students do not perceive the classroom climate as supportive. Students have other priorities that compete for their time and attention. Individual students may suffer from physical, mental, or other personal problems that affect motivation.

7. The factors age, sex, and course do not affect the assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application.

8. The factors age, sex, and course do not affect the self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction.

9. The assessment of the student respondents on the competency of the teachers in terms of subject matter knowledge, instructional representation and strategies, knowledge of students' understanding, and technology integration and application and their self-assessment of the student respondents on their level of academic motivation in terms of attention, relevance, confidence, and satisfaction were found to have a weak positive correlation.

Recommendations

1. The teachers can use project-based learning which consists of problems that the students may encounter in the future.

2. The teacher can explore the use of cooperative learning in conjunction with project-based learning so the students who are struggling can be assisted by another student who are in the same demographic as them.

3. The school should invest in providing the teachers with diverse learning materials that will try and cater to different students' skills, abilities, etc.

4. The teacher can also experiment with the use of flipped classroom to give the students more time in learning the content and focus on processing the contents acquired.

5. The school should make use of a learning management system that has capabilities to cater to the multi-intelligences of the students.

6. Teachers should maintain positive relationships with the students while also ensuring healthy association among them by encouraging them to participate in group activities and other extracurricular activities that would promote communication and collaborative working environment.

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