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Students' Competence In Using Technologies On Flexible Learning In The New Normal

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ABSTRACT

This study determined the level of competence of Zamboanga Peninsula Polytechnic State University students in the use of technologies for flexible learning in the new normal in terms of; a) learning management system; (b) digital tool application and; (c) virtual meeting application. The study employed mixed methods of qualitative and quantitative approaches in determining the said competencies. One-hundred-twenty (120) respondents were chosen from Zamboanga Peninsula Polytechnic State University's three colleges. The results revealed that all components in the learning management system yielded the intermediate level of competencies; Google Classroom was rated advanced level, Canvas, Edmodo, and Moodle were intermediate. In digital tool application yielded the intermediate level of competencies in which Kahoot and Quizizz were rated as intermediate while Google Suites as advanced. While in Virtual Meeting Application yielded an advanced level of competencies; Zoom and Google Meet respectively were rated as the advanced level of competency. In addition also about determining the difference of the three level of competence among the respondence ated, it was found out that there is no significant difference in the level of competence in the use of technology applications such as Learning Management System (LMS), Digital Tool Application (DTA), and Virtual Meeting Application (VMA).

Keywords: Learning Management System, Digital Tool Application, Virtual Meetings, Mixed Method Analysis, Philippines.

INTRODUCTION

Background of the Study

The COVID-19 pandemic has significantly altered the process of facilitating learning for undergraduates. With the rapid changes in learning methods, students are being challenged to be adaptive and resilient. As a result, students become more responsive to online tasks rather than acquiring life-skill competencies.

The Philippine Commission on Higher Education (CHED) has encouraged Higher Education Institutions (HEIs) to begin implementing flexible learning modalities. CHED Memorandum Order No. 4, Series of 2020 –Guidelines on the Implementation of Flexible Learning. It is intended to protect Filipino students from becoming infected with the virus.

The new normal has taken into a paradigm shift from traditional face-to-face classroom instruction to Flexible Learning/ Distance Education. Zamboanga Peninsula Polytechnic State University is one of the many educational institutions that offer flexible learning, through online classes and modules.

As mentioned by Santiago Jr. (2021), during synchronous planned classes, Google Meet served as a meeting platform. Students' skills with online learning systems and meeting platforms were determined to be proficient. The study indicated the students' knowledge of online learning systems and meeting platforms was advanced. Similar findings were made in the study by (Duhaylungsod & Chavez, 2023) regarding the use of AI models to help students improve their innovative and creative endeavors. While AI models help students conceptualize their ideas and include new perspectives, there is concern that an excessive reliance on AI models will prevent students from being innovative and creative. Even though they are competent, some students believe there are still challenges or flaws, such as the fact that it is not supported by all programs and that accessing it is difficult due to the fact that not all applications are free to use.

Software applications like Learning Management System (LMS), Digital Tool Application (DTA), and Virtual Meeting Application (VMA) have a number of drawbacks that affect students' competency, such as not being able to navigate on a laptop device due to numerous problems with navigating the applications and being inaccessible to the majority due to limitations in the Zoom app in particular. However, because online applications are simple to use, most students use and are competent in them because they are a type of application that is useful in their lives and will make all of their work easier.

This study aimed to determine the level of technological competence of the Zamboanga Peninsula Polytechnic State University students in online learning. The results of these findings would be used to gain insights and to assist educational institutions in adopting the most suitable approaches to integrating technology applications into online learning.

Research Objectives

This study aimed to identify the competencies of the Zamboanga Peninsula Polytechnic State University students in using technologies for flexible learning in the new normal.

Specifically, it aimed to:

1. Determine the level of competence of the respondents in the use of technology application for flexible learning in terms of:
   1.1 Learning Management System.
      a. Google Classroom.
      b. Canvas.
      c. Edmodo.
      d. Moodle.
   1.2 Digital Tool Application.
      a. Kahoot.
      b. Quizizz.
      c. Google Suites.
   1.3 Virtual Meeting Application.
      a. Zoom.
      b. Google Meet.
   2. Evaluate the significant difference in the level of competence in the use of technology application for flexible learning in terms of:
      2.1 Learning Management System.
      2.2 Digital Tool Application.
      2.3 Virtual Meeting Application.

METHODOLOGY

Research Design

The study used a quantitative-qualitative research design. The descriptive research technique was appropriate for this study, which described the competency level of the students in utilizing technology applications in flexible learning. Quantitative research was used because numerical data from survey questionnaires were used. Qualitative research was used because data were gathered through structured student interviews.

Research Locale

The study was conducted among the College of Arts Humanities and Social Sciences, College of Teacher Education, and College of Information and Computing Science students in the Zamboanga Peninsula Polytechnic State University, Zamboanga City.

Respondents of the Study

The respondents of the study were the 120 students from the three (3) different colleges of Zamboanga Peninsula Polytechnique State University, such as, the College of Arts Humanities and Social Sciences; College of Teacher Education; and College of Information and Computing Science.

Sampling Technique

The study used the purposive sampling technique in the selection of participants. The researchers believed that through purposive sampling representative samples using sound judgment could be obtained. It also saved time and finances (Black K, 2010). As a result, this sampling technique used to collect information from participants who were actively participating in an online modality, resulting in better insights and more precise results about the competence of technology applications.

Research Instruments

The questionnaires were divided into 3 parts. Part I of the research instrument was intended to provide appropriate responses to research objective number 1, that is, “Determine the level of competency in using the technology applications of the respondents? This consisted of the competencies of the students navigating the technology applications such as the Learning Management System (LMS), Digital Tool Application (DTA), and Virtual Meeting Application (VMA) in flexible learning at Zamboanga Peninsula Polytechnique State University by indicating a checkmark (√) on the corresponding score. The rating of competency in using technology was adopted from the study of (Duhaylungsod, 2021), in which the scale is from 1 to 5; with 5 being the highest score, with a corresponding competency level and description as indicated: 5- Expert, students must have extensive knowledge or complete mastery of the applications. 4-Advanced, students with this level of competency can use and navigate a wide range of technological applications, showing mastery. 3-Intermediate, students understand the concept behind technology applications and can navigate them independently, but they still require expert assistance. 2-Novice, students were just starting to learn how to use the technological

applications and had little knowledge of them. 1-Fundamental Awareness (basic knowledge), students have a general understanding of the fundamental features of technology applications.

The results of the data gathered in Part II were evaluated for comparison in order to meet the objective of number two (2), which is to see if there is a significant difference in respondents' level of competence in using LMS, DTA, and VMA technology applications. Part III of the research instrument was intended to confirm or validate the quantitative findings of the result. Hence, the researchers also conducted the initial interview with the use of an interview guide.

Moreover, individual interview was also conducted with the participants in order to assess the qualitative findings of this study in order to support the quantitative data regarding the level of competence in the use of technologies in the new normal among the ZPPSU students. Hence, the structured interview questions were utilized during the data gathering.

Validity and Reliability of the Research instruments

The researcher-made survey questionnaire was validated by the experts such as the Research Specialist, Associate Dean, and SHS Principal, and after that, the suggestions were consolidated. It was decided to follow their comments and change the three (3) questions to five (5) questions in each application. Along with the questionnaire, the researchers also constructed interview questions for validation by the said experts. The suggestions were consolidated and used to construct the final version of the instruments.

Data Gathering Procedure

A formal letter was sent to the Deans of CAHSS, CTE, and CICS seeking permission to conduct a study on their students. The researcher issued a letter and sent it to the Registrar's Office for the master list of enrolment of the three colleges, and after that, the researcher used the non-probability purposive sampling technique in selecting the participants, specifically the selected CAHSS, CTE, and CICS students, and messaged them through Facebook Messenger to clarify if they used online modality as their mode of flexible learning and sent the permission letter to formally inform the participants that they are part of the data gathering in the study.

After they agreed, the researcher sent them the link to the Google Form survey questionnaire to fill out. Hence, the responses from the Google form survey questionnaire were tabulated. The data were then analyzed and interpreted using the most appropriate statistical procedure.

Furthermore, the researcher randomly selected 10 respondents for the interview to determine their insights based on every technological applications to support the answers that appeared in the result.

Statistical Treatment of Data

Weighted Mean. This measure was being used to determine students' competence to use technological applications such as the Learning Management System (LMS), Digital Tool Application (DTA), and Virtual Meeting Application (VMA).

ANOVA was used because the study looked at the significant differences in the use of different software technology applications like the LMS, DTA, and VMA.

Thematic Analysis was used to closely examine the data from the conducted interview in order to identify recurring themes, topics, ideas, and patterns of meaning. The process of analysis composed of the following phases; 1.) transcription of the verbatim; 2.) coding process; 3.) theme.

RESULTS AND DISCUSSION

Objective No. 1: Determine the level of competence of the respondents in the use of technology applications for flexible learning.

Table 1 Level of Competence in the use of Learning Management System (LMS) on
Google Classroom

Google Classroom	Mean	Description
A.1. I can submit my assignment and activities by clicking Add class comment and entering a comment.	**3.54**	**Advanced**
B.1. I can join the given subject, by clicking the plus icon and entering the class provided by my teacher.	**3.52**	**Advanced**
C.1. I can locate the selection that displays the teacher's name and a list of the students enrolled in the class, by clicking the "People" section.	**3.48**	**Advanced**
D.1. I can remove the document from my submission and make a new copy by opening it and then tapping the "Edit" button at the top.	**3.40**	**Advanced**
E.1. I can underline words, highlight text and leave notes by clicking the file that is already attached to the assignment then in the top right corner, tap Edit.	**3.23**	**Advanced**
General Mean	**3.434**	**Advanced**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 1 shows that the Google Classroom received an overall average of 3.434 and was classified as having an advanced level of competency. Hence, from the five statements on the questionnaire that have been responded to by 120 students, it can be seen that statements A.1 and B.1 have a strong response from the students since 3.54 and 3.52 respondents were rated as advanced. It implies that most of the students were competent in navigating the join and submit in Google Classroom since it is the most basic feature in the application. Another dominant aspect that had a solid response was statement C.1, with a mean of 3.48, and statement D.1, with a mean of 3.40, and E.1, with a mean score of 3.23 respectively described as advanced.

This result was supported by the evidence in qualitative finding based on the interview conducted as explained by **Respondent 1.**"Para sa akin ang Google Classroom lang talaga ang prefer ko as an online student. Bakit? Kasi ang google classroom ay isa sa pinakamadaling app na nagagamit o alam ko kung paano gamitin."("For me, I really preferred the Google Classroom being an online student. Why? It is because the Google Classroom is one of the easiest app to use.") Hence, with the same idea, **Respondent 2** also stated, "Pagdating po sa LMS, marunong po talaga gumamit ng Google Classroom" ("In terms of LMS, I am really good at using the Google Classroom."). Moreover, **Respondent 3** also stated," Ang masasabi ko lang po ay, marunong po ako gumamit ng LMS gaya ng Google Classroom since yun po ang kadalasan ginagamit ng instructors namin sa online class po."("I can say that I am good in using both applications in LMS that is Google Classroom since our instructors use those app in our online class.") Additionally, **Respondent 4** also said, "For me, magaling po ako gumamit ng Google Class since ito po yung ginagamit namin to submit our activities and assignments." ("For me, I am good at using the Google Classroom because it is the app that we use to submit our activities and assignment.") Of the same importance, **Respondent 5** also supported this finding,"Kasi ano oh sa Google Classroom kase usually ano oh, ginagamit na kasi namin siya since senior high school. That's why masasabi ko na magaling na ako gumamit dito so yung mga features dun familiar na talaga siya sa akin." ("It is because, we usually used the Google Classroom even when we were in the senior high school. That is why I am good at using this app because its feature is familiar to me.")

The above findings would imply that the students were advanced on the use of the Google Classroom because this online class application is the most popular and frequently used among students and teachers not only in the tertiary level but also in the lower level such as senior high school as stated by one of the respondents. Moreover, in terms of its feature, the Google Classroom is the easiest one to navigate. It has been a preference of students as they were exposed in using this feature in terms of submitting their assignments and quizzes set by the instructors.

Table 2 Level of Competence in the use of Learning Management System (LMS) on Canvas

Canvas	**MEAN**	**DESCRIPTION**
A.2. I can upload media files from an Android device to the student app as an assignment submission.	**3.31**	**Advanced**
B.2. I can submit a quiz in Canvas by clicking the Quizzes link in the Course Navigation. Open Quiz To open the quiz, click on the quiz title.	**3.31**	**Advanced**
C.2. I can use my webcam to take a photo for assignment submission, by clicking the Assignment icon and then selecting Use Webcam to upload a file.	**3.10**	**Intermediate**
D.2. I can view calendar events by day, week, month, or agenda list, by clicking the calendar link in the navigation bar.	**3.03**	**Intermediate**
E.2. I can create a Canvas account using a join code or secret URL, by accepting the institution's course invitation.	**2.82**	**Intermediate**
General Mean	**3.114**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 2 shows that the canvas application yielded an overall mean of 3.114, indicating intermediate level. It means students understand the concept behind technology applications and can navigate them independently, but they still require expert assistance to utilize the app. Statements A.2 and B.2 received the highest mean score of 3.31, while statement E.2 received the lowest mean of 2.82, which is also described as intermediate. It indicates that students understood the basic concepts of this technological application, such as how to upload media files, despite the fact that this app is not frequently used in their institution. Thus, statements C.2 and D.2 were categorized into intermediate level, which were 3.10 and 3.03, respectively.

However, according to the qualitative results, there were few students who stated that they considered themselves as not yet competent since this platform was rarely used in their online classes and they never used them. Thus, **Respondent 3** said," For the two applications I'm not good enough because I never used them; the canvas and moodle." Furthermore, **Respondent 10** also stated," The other application ayy hindi ako competent kasi hindi ko pa na discover ang app na yan like canvas." ("With other application, I am not yet competent because I have not yet discovered the app like Canvas.") This implies that despite the overall average result, there were students who were not yet exposed to the said online learning platform; especially the students who were not under computer-related courses.

Table 3 Level of Competence in the use of Learning Management System (LMS) on Edmodo

Edmodo	**Mean**	**Description**
A.3. I can submit an assignment by selecting the assessment on the right-hand side	**3.23**	**Advanced**
B.3. I can view/edit my profile by clicking the "Profile" link in the upper right corner of my home page.	**3.22**	**Advanced**
C.3. I can create an account by clicking the Sign-Up button in the upper right corner.	**3.07**	**Intermediate**
D.3. I can join a class with a URL by opening a new tab in my browser and typing in the Join URL.	**3.06**	**Intermediate**
E.3. I can post my entire class group by typing in the post box just above my feed in the center of the page.	**2.95**	**Intermediate**
Grand Mean	**2.63**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 3 shows that the Edmodo application yielded an intermediate competency level of 2.63. Hence, all five of the statements on the questionnaire were responded to by the 120 participants. As a result, students rated the same average in statements A.3 and B.3 with an equal mean of 3.23 and 3.22, indicating that they can navigate, view their profile on the app, and send their assignments. Thus, statements C.3, D.3, and E.3 received mean scores of 3.07, 3.06, and 2.95, respectively, indicating that they are intermediate.

Based on the interview, **Respondent 3** said," Ang masasabi ko lang

po ay marunong po ako gumamit ng dalawang apps na yan sa LMS, yung Google Classroon pati Edmodo since ginagamit po yan ng instructors namin sa online klasi po naming. So, marunong po ako magnavigate sa app na to." ("I can say that I am good in using both applications in LMS, that is Google Classroom and Edmodo since our instructors use those app in our online class. Basically I could navigate the app.") In addition, **Respondent 6** supported this finding and said," Hindi po lahat. Bale sa Google Classroom and Edmodo lang po yung applications na kaya kong gamitin. At sa tingin ko po magaling ako dahil madalas namin ito ginagamit sa lahat ng subject."(Not all. Only the Google Classroom and Edmodo which I could use. For me, I knew how to use it because this had been frequently used in most all of our subjects.") Moreover, **Respondent 10** also corroborated these statements. "Familiar po ako sa Edmodo, kasi nagamit namin siya sa isang subject lang yun. Tapos ginagamit namin siya sa pag may quizzes." (I am familiar with Edmodo because it was used in one of our cubjects and it was also used for the quizzes.") This implies that students had sample knowledge and understanding of the uses of Edmodo as one of their learning management system, although this application is not frequently used in most of the online classes according to the respondents.

Table 4 Level of Competence in the use of Learning Management System (LMS) on Moodle

Moodle	**Mean**	**Description**
A.4. I can send messages to other users via chat or by clicking the Send Message link on a user's profile page.	**2.94**	**Intermediate**
B.4. I can edit my profile by clicking on my name and selecting the "Edit Profile" from the course administration block.	**2.93**	**Intermediate**
C.4. I can upload a file from my computer by clicking Upload a file (at the left), then choosing. Choose File under Attachment	**2.86**	**Intermediate**
D.4. I can view their forum posts and blog by simply clicking on their Profile link.	**2.80**	**Intermediate**
E.4. I can enroll in Moodle courses by typing the course name into the Search courses box and clicking the "Go" button.	**2.77**	**Intermediate**
Grand Mean	**2.86**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 4 shows the overall mean score of 2.86, indicating an intermediate competency level. The survey's five statements were all

intermediate competencies, with mean scores of 2.77, 2.86, 2.93, 2.94, and 2.80 respectively. As a result, students using this app can navigate the app's basic concepts, such as enrolling, uploading files, and sending messages, even if they were not using this app in their institution because students nowadays are technologically savvy. However, despite the quantitative results, it was found that there were some students who were not yet competent in using this online management system. Thus, **Respondent 3** said, “The two applications I'm not good enough because I never used it the canvas and moodle.” (“I am not good enough in using the two applications because I never used the Canvas or Moodle”). In the same manner, **Respondent 10** also stated, “The other application ayy hindi ako competent. Kasi hindi ko pa na discover ang app na yan like Canvas and Moodle." (“For the other application, I am not yet competent because I have not discovered them yet such as Canvas and Moodle.”). This would imply that there are still few students who are not yet competent with the use of Moodle since this might not be the most frequent online learning management system used in most of their online classes particularly those non computer-related courses.

Table 5 Level of Competence in the use of Learning Management System (LMS)

Learning Management System	**Mean**	**Description**
Google Classroom	**3.434**	**Advanced**
Canvas	**3.114**	**Intermediate**
Edmodo	**2.63**	**Intermediate**
Moodle	**2.86**	**Intermediate**
Grand Mean	**3.009**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 5 shows that the respondents had advanced level of competence on Google Classroom with a mean score of 3.434. On the other hand, Edmodo and Canvas received a mean score of 2.63 and 3.114, respectively; while Moodle received a mean score of 2.86. The findings of this study revealed that the LMS competency level of the respondents had an aggregate mean of 3.009, described as intermediate. This implies that students understood the concept behind technology applications and can navigate them independently. But they still required expert assistance on how to navigate creating an account, upload, submit or modify webcams

because Canvas and moodle, in particular, were not frequently used as online learning tools. Furthermore, some respondents rated Google Classroom as advanced because of the simple tools and basic features provided by this application, indicating that they were competent in using them.

Table 6 Level of Competence in the use Digital Tool Application on Kahoot

Kahoot	**Mean**	**Description**
A.6. I can create an account by tapping Create at the bottom of the screen.	**2.91**	**Intermediate**
B.6. I know how to play Kahoot! By clicking a button on a Kahoots quiz and then pressing the “Play” button.	**2.88**	**Intermediate**
C.6. I can connect Kahoot to Google Slides by clicking the "Add slides" button then select the "Import slides" option in the pop-up window to import slides from a PowerPoint presentation.	**2.83**	**Intermediate**
D.6. I can include players from other locations by using screen-sharing tools such as Skype, Appear in, or Google Hangouts.	**2.83**	**Intermediate**
E.6. I can open the Kahoot option menu by clicking the "options" button and scrolling down to the "Preview" option.	**2.79**	**Intermediate**
Grand Mean	**2.848**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 6 shows that overall, the students yielded the intermediate competency level of the applications with a mean score of 2.848, indicating that students had good understanding of the concept in using the technology applications and can navigate them. But they still need further supervision and assistance to effectively and accurately utilize the said application. Hence, statements A.6 and B.6 received the highest mean scores of 2.91 and 2.88, respectively. As a result, the majority of students were starting to use this app by creating an account and how to use the Kahoot quiz. Thus, statements C.6, D.6, and E.6 had mean scores of 2.83, 2.83, and 2.79 respectively.

However, despite the average level of competency shown in the quantitative results, there were few students who stated that they were not really competent in using the said online learning application. As stated by **Respondent 3**, “The Kahoot and Quizziz, but in the two app I'm not really that good enough since we rarely used those app.” (For the these two apps, the Kahoot and Quizzes, I am not really good enough at using them because

we rearely use them."). Additionally, **Respondent 6** also said, "Sa kahoot parang in game. May time limit something like that." ("In Kahoot, it's like a game which has a time limit, something like that.") **Respondent 9** also stated, "Hindi ako marunong sa Kahoot at Quizziz. Kasi yung instructor namin hindi ni require gumamit ng app na ito." ("I am not good at Quizziz. This interesting finding implies that although majority of the students were familiar and were able to use this digital tool application, there were still few of them who were not yet exposed to the said tool. I revealed that they had limited knowledge of this technology used in online learning.

Table 7 Level of Competence in the use of Learning Management System (LMS) on Quizizz

Quizizz	**Mean**	**Description**
A.7. I can log in by clicking the login button on the top right of the 'Join Page' of my Quizizz account.	**3.20**	**Intermediate**
B.7. I can create a quiz by clicking the add question button and adding the next question.	**3.00**	**Intermediate**
C.7. I can send a quiz by going to the library and selecting the quiz that I want to share with my instructor.	**2.98**	**Intermediate**
D.7. I can always export the results of a game or quiz in the form of an excel sheet.	**2.93**	**Intermediate**
E.7. I can host and play Quizizz with my friends by clicking on the 'Challenge Friends' button.	**2.93**	**Intermediate**
Grand Mean	**3.008**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 7 shows that the overall average for this technology application is 3.008, indicating an intermediate level of competency. As a result, only statements A.7 and B.7 received the highest mean scores of 3.20 and 3.00, respectively. It implies that these two statements are the most basic features, hence, most students using this application can navigate the app by logging in and creating a quiz. Thus, the other statements on the question were also considered intermediate, with mean scores of 2.98, 2.93, and 2.93 respectively.

Interestingly to note, that despite the intemediate level of competence yielded in this component, the qualitative finding reveals that there were few students who were still familiarizing with the said digital tool application. It had similar explaination with the previous discussion on

the same statement on Kahoot. **Respondent 3**, “The Kahoot and Quizziz; but in the two app I'm not really that good enough since we rarely used those app.” (For the these two apps, the Kahoot and Quizzes, I am not really good enough at using them because we rearely use them.”). Additionally, **Respondent 6** also said, “Sa quizzes naman parang nakadalawa lang kami nagtake ng quiz dun. Kaya para sa akin sa Google form talaga ako magaling.” (In Quizziz, I think we just used it twice during the quizzes. That is why for me, I am better in using the Google form.”) In addition, **Respondent 9** stated, “Hindi ako marunong sa Kahoot at Quizziz. Kasi yung instructor namin hindi nirequire gumamit ng app na ito." (“I am not good at Quizziz This interesting finding implies that although majority of the students were familiar in using this digital tool application, there were still few of them who are not yet exposed to the said tool. Thus, they had limited knowledge of this technology in online learning.

Table 8 Level of Competence in the use of Digital Tool Application (DTA) on Google Suites

Google Suites (Google Form, Docs, Drive)	**Mean**	**Description**
A.8. I can set up my Google account, by accessing Google Drive and going to http://drive.google.com in web browser.	**3.43**	**Advanced**
B.8. I can connect my Google Suites account to Google Classroom, Google Meet, Edmodo, Zoom, and other services.	**3.38**	**Advanced**
C.8. I can share a file with collaborators by adding it to Goggle Drive in the upper left corner, click New > File upload.	**3.35**	**Advanced**
D.8. I can access all G Suite Apps by logging in to the Google Chrome browser.	**3.29**	**Advanced**
E.8. I can submit a cloud assignment by tapping the submit button.	**3.28**	**Advanced**
Grand Mean	**3.346**	**Advanced**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 8 shows the overall average of the applications with a mean of the means of 3.346, indicating an advanced level of competency. Each statement yielded an advanced competency level of 3.43, 3.38, 3.35, 3.29, and 3.28 respectively. It implies that the majority of students were familiar in the use of the Google Suite in general, including Google Forms, Google Drive, and Docs, through which they could submit assignments and collaborate on files in Google Drive.

This result was supported by the qualitative data mentineded by **Respondent 5,** who said, “Pagdating sa Google Form, oo, dahil sumasagot kami ng mga quizz dito at madaling masubaybayan ang aming mga score. At palaging ginagamit ng aming teachers ang application na ito. Kaya lagi namin itong ginagamit sa aming klase. Pati napakadali para sa akin na mag-navigate sa ganitong uri ng application.” (“When it comes to Google Form, yes, because we usually answer our quizzes in this tool and this is easier to monitor our score. It is also frequently used by our teachers. That is why we always use it in our online classes and it is the easiest for me to navigate this kind of application.”) Of the same importance, **Respondent 9** said, “Magaling ako sa Google suite tulad ng Google form. Marunong ako sa app na ito dahil madali lng ito gamitin.” (“I am good at using the Google Suites like Google form. I am competent with this app because it is easy to use.”) In the same manner, **Respondent 10** also supported this statement, “Google suites because it's easy to pass activities and not hassle."(In Google Suite, it is easy for me to submit my activities and it is also a hussle free application.”) Hence, this would imply that the frequently used of this digital tool application in most of the online classes made students become familiar and competent in using it. Particularly, it makes them easy in terms of submission of their activities and monitoring their scores.

Table 9 Level of Competence in the use of Digital Tool Application (DTA)

Digital Tool Application (DTA)	**Mean**	**Description**
Kahoot	**2.848**	**Intermediate**
Quizizz	**3.008**	**Intermediate**
Google Suite (Google Form, Drive Docs)	**3.346**	**Advanced**
Grand Mean	**3.067**	**Intermediate**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 9 shows the results of the respondents' digital tool applications with an overall mean score of 3.067. It revealed an intermediate level of competence. The respondents rated the following: Google Suite, with a mean score of 3.346, rated as advanced; and Quizizz, with a mean score of 3.008, rated as intermediate. While Kahoot! received a very low mean score of 2.848 which is also considered as intermediate level. The findings showed the respondents' DTA competency with a mean

score of 3.067, which is interpreted as intermediate. It revealed that the respondents can navigate the DTA applications, allowing them to successfully evaluate their tasks online, such as exams, quizzes, and sharing files. The Kahoot! Application was rated with the lowest mean score; although it is still considered under intermediate level. It implied that the application primarily focuses on gaming aspects in learning activities, and the majority of its users are teachers or educators.

Table 10 Level of Competence in the use of Virtual Meeting Application (VMA) on Zoom

Zoom	**Mean**	**Description**
A.10. Unmute my mic when speaking in the Audio settings and be able also to share audio clip of my presentation.	**3.54**	**Advanced**
B.10. Share my slide presentation of my report to the class when presenting by pressing the sharing button.	**3.50**	**Advanced**
C.10. Turn off my camera by clicking the “Stop Video” option on the call tool bar at bottom of the screen.	**3.47**	**Advanced**
D.10. Join the virtual meeting by clicking to the default screen and pressing the "Join a Meeting" button.	**3.42**	**Advanced**
E.10. Use virtual background by modifying in the Video setting of **ZOOM MENU** according to the motif of the lesson.	**3.32**	**Advanced**
Grand Mean	**3.45**	**Advanced**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 10 shows the overall mean score is 3.45. It indicated an advanced level of competency. Hence, the 120 respondents responded to the questionnaire's five statements. As a result, statements A.10 and B.10 received the advanced level, with mean scores of 3.54 and 3.50, respectively. This implies that the majority of students were competent in using a smartphone to navigate the app and could easily share a presentation when having a report and locate the button to unmute and join the class. Another strong response from respondents were statements C.10, D.10, and E.10 as advanced level, with mean scores of 3.47, 3.42, and 3.32, respectively.

This finding was supported by the qualitative data mentioned by **Respondent 2,** who said, “Yes po. I’m good in using both applications. Kasi familiar po sila sa akin and easy to use. Ito din po ginagamit namin always for online class.” (Yes, I am good at using both applications because they are familiar to me and were easy to use. We usually use this application in our online classes.”) In addition to this statement, **Respondent 3** also explained, “Marunong po ako gumamit ng Google Meet at Zoom since yung instructor po namin ay ginagamit po niya ang dalawang apps na ito sa online class po namin.” (“I am good enough in using both applications, Google meet and Zoom, since our teacher used these two apps for virtual meeting.”) Moreover, **Respondent 5** also stated,”Sa tingin ko po, marunong naman po ako gumamit ng Google Meet at Zoom. Kasi, noong simula pa lang ng online classes po namin, ginagamit na po ng instructors po namin ang dalawang apps na ito.” (“I think I am good naman, because basically nung pagkasimula pa ng online classes Google meet and Zoom ang ginagamit ng Instructor.”) In the same way, **Respondent 8** also said, "Zoom application sa laptop, dahil masasabi kong madali itong gamitin dahil mayroon itong simple features gaya na lamang ng mute button. Madali nating ma-mute ito sa paraang pagpindot ng microphone icon."(“Zoom application, especially with laptop. I can say that it is easy to use because it has simple features, like a mute button, so that we could easily mute by clicking the microphone icon.”) This simply implies that the Zoom application is one of the most common and frequenly used in the online classes. Its easy navigation of the feature helps students to have their virtual meeting efficiently; while, it can also accommodate large number of participants.

Table 11 Level of Competence in the use of Virtual Meeting Application (VMA) on Google Meet

Google Meet	**Mean**	**Description**
A.11. Share my slide presentation of my report to the class when presenting by pressing the sharing button.	**3.81**	**Advanced**
B.11. Join the virtual meeting by clicking to the default screen and pressing the "Join a Meeting" button.	**3.79**	**Advanced**
C.11. Turn on and off my video camera by clicking the camera icon, which will become red, and then selecting “Ask to Join” to join the meeting.	**3.79**	**Advanced**
D.11. Use the **GOOGLE MEET MENU** to select video/audio setting to modify the output video of my camera and input volume of my microphone.	**3.66**	**Advanced**

E.11. Use virtual background by modifying in the Video setting of **GOOGLE MEET MENU** according to the motif of the Lesson.	**3.56**	**Advanced**
Grand Mean	**3.722**	**Advanced**

Expert 4.21 – 5.00; Advanced 3.21 – 4.20; Intermediate 2.61 – 3.20; Novice (limited experience 1.81 – 2.60; Fundamental Awareness (basic knowledge) 1.00 – 1.80

Table 11 shows that the application's overall mean of the means is 3.722, indicating an advanced level of competency. It showed that most of the students were competent and had mastery in navigating the application. Based on the highest mean scores for statements A.11, B.11, and E.11, 3.79 for B.11 and C.11, and 3.81 for statement A.11, students use the most basic features of the application, such as joining and submitting assignments and sharing slide presentations. Thus, statements D.11 and E.11 had an overall mean scores of 3.56 and 3.66, respectively, indicating that they were completely advanced.

This finding was confirmed in the qualitative results of **Respondent 4,** who said, “Mas magaling po ako sa google meet since ito yung always na ginagamit namin sa online class, presenting our topics and discussions..saka no time limits siya.” (“I am more competent at using the Google Meet, since it is the most frequently used in our online classes, presenting topics and discussion and it has no time limit.”) Additionally, **Respondent 5** stated, “For me, kasi, ang Google meet is the type of application that we usually use in the class. Like what I’ve said, isa rin ito sa application na ginamit namin before even in senior high and until now. Oo magaling ako sa paggamit nito. Dahil mayroon itong easy features. Mayroon din itong magandang application ng feedback. Kaya naman maraming tao ang gumagamit nito.” (Like what I have said, the Google Meet is one of the application we usually used in the online classes. It was also an application that we used during our senior high school until now. I am good at using it because its feature is easy to navigate by which this application also has received lots of good feedbacks from the users.”) Moreover, **Respondent 6** explained, “Mas competent ako sa google meet. Kasi since first year to 3rd year, ito na talaga yung app na ginagamit ko sa aming online class. Ang nagustohan ko; siya kasi pwede kang mag accept ng marami not like sa zoom may oras talaga kung hanggang kailan pwede lang. Google meet kasi dito na din kami nag rereport by sharing screen and you can use it untill matapos na na ang oras ng klase niyo." (I am more competent at using the Google Meet because I used it since I was in third year when we had our online classes. Something that I like in this app is that it could spend a lot of time. Unlike Zoom which has a time limit. We

also used the Google Meet in presenting our reports by sharing screen and you still can use it until the class time is over.") Finally, **Respondent 10** also supported this finding,"Mas magaling ako or preferred po gamitin ang Google meet sa smartphone. Basically kasi madali siyang gamitin and e navigate ang mga basic features niya. Pati since eto na yung always na ginagamit ng mga instructor." (I am more competent or preferred the Google Meet in my smartphone because it is easy to use and navigate its basic features. And it is also the most frequent platform used by our teacher in online classes.) This implies that with the friendly feature of the Google Meet as well as its unlimited time were advantaged for virtual classes. Thus, the students mostly preferred this virtual meeting application. They were competent in using it during their online classes, especially in presenting their reports and joining the virtual discussion.

Table 12 Evaluate there significant difference in the level of competence in the use of technology applications for flexible learning.

Variable	Technology Application	Computed Mean	f-value	p-value	Remarks	Decision
Level of Competence in the use of technology by the Different Departments	Learning Management System (LMS)	2.54	0.827	0.440	Not Significant	Accept Null Hypothesis
	Digital Tool Application (DTA)	2.70				
	Virtual Meeting Application (VMA)	3.13				

Note: P-value is greater than alpha= 0.05; Null hypothesis is not rejected.
P-value is less than alpha= 0.05; Null hypothesis is rejected.

The One-Way ANOVA was used to determine the significant difference among variables. Since the P-value is greater than 0.05 level of significance, this means that there is no significant difference in the level of competence in the use of technology application for flexible learning as rated by the three (3) software applications, namely; the Learning Management Sytem (LMS), Digital Tool Application (DTA), and Virtual Meeting Application (VMA). This can be inferred, that the rating of the three technology applications were more or less the same. It signified further that the three Colleges of Zamboanga Peninsula Polytechnic State University had the same level of competence in the use of technology

application for flexible learning in terms of Learning Management System, Digital Tool Application, and Virtual Meeting Application.

Conclusion

Based on the above findings, the following conclusions were drawn;

1. The findings on the Learning Management System, Digital Tool Applications and Virtual Meeting Applications have the same level of competency
2. The respondents, including those from the CAHSS, CTE, and CICS departments, demonstrated average level competency in using technology applications such as Google Classroom, Edmodo, Google Suites (Google Form), Quizizz, Google Meet, and Zoom Meeting on smartphones and laptops. Despite their ability to navigate independently, they occasionally require expert assistance in order to use the more advanced features of these applications.
3. The results of the comparison between the Zoom and Google Meet apps on both devices indicate that both apps have the same level of competency. However, Google Meet receives the most responses in the expert and advanced categories.
4. The students were capable of navigating the basic features in the use of technologies for flexible learning in the new normal.

Recommendations

Based on the findings, the following recommendations are suggested:

1. Administrators are recommended to implement the training and seminars in the use of software applications such as LMS, DTA, and VMA in order to continuously improve online education.
2. Since the competency level of the students was average, teachers may continue incorporating such technology applications to improve their skills in online learning.
3. Launch training and workshops for LMS, DTA, and VMA technological applications for students to gain a deeper understanding of these applications.
4. A similar study must be conducted on a larger group of subjects to determine if the same findings will be established.

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