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THE LEVEL OF KNOWLEDGE AND SKILLS IN THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AMONG HOSPITALITY DEPARTMENT LECTURERS IN SELECTED VOCATIONAL COLLEGES IN SABAH AND SARAWAK.

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Abstract : Along with the current modernization and technology is developing rapidly in all corners making technology an essential medium in human life. In discussing this aspect, the development of technology has brought changes to various sectors, especially in the world of education. Technology makes the world of education experience a change in the learning paradigm, such as the learning process can be done through an online application system, learning methods used in the concept of applications using the internet and various other facilities. Technology also makes the learning process easier and more flexible. Nevertheless, it still annoys the parties involved in monitoring the student's movement and level of understanding. This study was conducted in several Vocational Colleges in Sabah and Sarawak. They involve 117 lecturers at Tawau, Keningau, Bintulu, Sibu and Matang Vocational Colleges. The sample selection is made by selecting lecturers in the snowball method. The study's findings show lecturers' knowledge level about ICT with a mean of 4.12 (SP=0.41). Skills in Information and Communication Technology (ICT) also got a high score with a mean of 3.80 (SP=0.52). In the correlation findings of this study, there is a significant relationship between the level of knowledge and the skill of using ICT in learning. In this regard, teachers, especially in this discussion with Vocational College lecturers and parents, play a significant role in monitoring the children so that the learning concept of this technology can be used in the best way and provide continuous facilities like learning in the classroom. It should be noted that the level of student understanding depends on each individual. Therefore, in assessing the successful use of this strategy in educational institutions, efforts to help teachers improve their competence in online learning can be made through the training and mentoring process.

IndexTerms **- ICT, Technology, Online Teaching and Learning, Learning Methods, Uses Of Teaching Application, Vocational College Lecturers**

INTRODUCTION

The last few years can be seen even more clearly when the current learning system changes slowly and follows other developed countries that use technology more than traditional teaching (chalk and talk). As seen in recent years, it can be quickly understood that the internet is changing the way we work and also the way we learn. According to Andrea & Catalin (2015), technology-based learning is becoming increasingly popular among all generations, including lecturers, students and parents. According to Raja & Nagasubramani (2018), today's students are more fond of using technology and how their learning will have a better impact if they use it. With technology and modern equipment, learning and student interactivity increases by applying educational technology in teaching and learning sessions. Globally, the product and education market is growing rapidly. The report of the Canadian Council on Learning states that e-learning is "the development of knowledge and skills through the use of Information and Computer Technology (ICT), especially to support interaction for learning (Abrami et al., 2008). This definition focuses on the idea of "interaction" as a key feature of e-learning and almost recognizes the central role played by pedagogy in effective learning.

Vocational Colleges were created through the educational transformation introduced during the transformational shift that took place through the Malaysian Education Development Plan (2013-2025). The essence of this change is to produce balanced people in terms of academics and the skills they are engaged in.

The use of ICT that is usually used in the teaching and learning of educators today is to make lectures related to theory, make formative assessments and conduct online quizzes for students. Likewise, the teaching method at Vocational College (VC) will change with time. With teaching methods, dance will increase students' interest in learning skills and subjects at VC. In line

with the study, integrating ICT components in the learning system creates a learning environment that can attract students' interest and stimulate computational thinking. (Kim & Park, 2018). Educational applications (apps) have been widely used in higher education in recent years, such as Quizizz, Padlet, Nearpod, Kahoot, Google Classroom and many more applications are used. Kahoot is a very interesting program where students can learn topics and concepts very interestingly. In addition, lecturers can give students assessments or quizzes, making learning more interactive and useful for teachers and students, even sharing knowledge with friends. Google Classroom is the largest application developed by Google Education to facilitate students and lecturers in teaching and learning online. The app allows students to participate in interactive class activities using mobile devices to enhance the learning experience. Although introducing technology to the classroom is a trend in higher education, at the secondary level (secondary school), it must be introduced widely to accept technology in education slowly (Watty, Mckay & Ngo, 2016).

Any pedagogy used in the classroom will ensure students' learning development. Big changes in the learning process by using technology can develop students' thinking and imagination, which is the main thing needed to develop students' cognitive. Nowadays, students live on the internet. Today's educators should be more technically and psychologically prepared to use technology in teaching. Educators need to revive and use the way of teaching and learning by using technology. According to John Haycraft (1997), learning a language usually has the practical goal of enabling students to communicate in that language. Therefore, every minute of the class will be directed to bring and teach students the language skills they need. The following is an example that can be used in learning technology that is increasingly used by today's education system. Students need to get used to technology so that they can master and focus more by using it than the traditional education system. Likewise, with the approach to lecturers or educators, they need to be more skilled in using new teaching and learning tools. An application based on Information and Communication Technology (ICT) able to attract interest and provide an active, fun atmosphere and encourage students to be active in learning

NEED OF THE STUDY.

Lecturer's Knowledge of ICT

In this context, with the help of technology, teaching and learning become more diverse, creating fun and sensitivity to the learning topic. Technology development provides ample opportunities for teachers to interest students in designing or creating fun methods for learning and teaching activities. Digital media is one of the important tools capable of improving methods that stimulate learning and teaching activities where it provides students with interactive learning opportunities with elements of educational conceptual games.

The application of ICT in higher education has changed the traditional paradigm related to the teaching and learning process, placing them as one of the main tools for imparting knowledge, and creating interaction between teachers and students, among other things, expanding education coverage. In this context, it is recognized that their integration into educational programs, especially virtual learning, is aimed at a curriculum that also implies a research process. Considering the previous idea, the literature shows that students' perception is different regarding their implementation, which produces different attitudes, levels of knowledge and usability represented in their use. Next, the technology applied to the classroom enables self-learning. Students can explore other teaching resources, including software, videos, and reading (Van & MM, 2017). In addition, according to the study of Bretch, H.D, Ogilby & SM (2008), the use of multimedia content allows the integration of some concepts that the teacher has explained to improve the development of both disciplines and across competencies.

Teachers need to have technological knowledge before conducting online teaching smoothly. In order to implement curriculum changes adapted to this era of globalization, educators need specific skills (Othman & Awang, 2018). According to Ungku Khairul et al. (2020), increasing the knowledge and skills of an educator can make the teaching and learning process more effective and attract students to follow it. The results of a previous study (Calder & Murphy, 2017) stated that students' responses in interviews and blogs acknowledged the potential of the iPad to manipulate objects on the screen dynamically. Students learn to act directly with objects and refer to tapping or drawing on the screen. Screencast features introduce multiple modes and representations as students work simultaneously with dynamic visual recordings (drawing, manipulating digital tools and writing symbols and words) and speech to create dynamic aural-visual representations. Hopscotch and tickle coding applications connect the numerical and symbolic representation in coding with the physical movement of the sphere and the creation of geometric shapes. Although the encoding process mediates the movement, students describe the connection between it and learning.

Furthermore, students refer to collaborative work with their peers. They show how ideas can be shared and worked on together. Students also mention how non-digital and digital technologies are used together.

Lecturer's Skills in ICT

The skills of lecturers in using applications in schools are very necessary for the era of technology that is gaining more and more attention for students. Lecturers need to join in following current trends. According to Albrahim (2020), the competence and talent of online teaching should be determined to help improve experts for online instructors. These abilities and competencies are classified into six categories: (a) pedagogical skills, (b) content skills, (c) planning skills, (d) technological skills, (e) management and institutional skills, and (f) social and conversational skills.

In developing quality human capital in line with the government's wishes, teachers are an important asset in leading this technological change. Teachers should be able to master the skills of using information and communication technology to facilitate the teaching and learning process at school. It can have a good effect on teachers and also on aspects of school management and administration. Therefore, to help teachers apply technology, activities such as courses and workshops related to information and communication technology are actively conducted to improve teachers' skills, especially in information technology. The negative nature of a few residents who use traditional teaching and learning methods to implement information and communication technology systems is a challenge for them. The internal nature wants to avoid trying to adapt to the technological revolution in education (Rabaya & Norazah, 2014). For example, the country is now in a situation where learning and teaching are done in a virtual environment. Teachers should deliver lessons to students online. For skilled teachers who use technology in the classroom, this will make it easier for students to launch their teaching process. On the other hand, for teachers who are less skilled in using information and communication technology it will be difficult for them to adapt to a situation like this. Therefore, the positive

attitude of teachers in using information and communication technology needs to be improved so that the teaching process runs smoothly.

RESEARCH METHODOLOGY

3.1Population and Sample

A *population* is a group of individuals, objects, items or entities with similar characteristics or attributes. The definition given means that the population is a group of people who need to be respondents to some of the factors of the sampling method stated. The researcher will conduct this study in two states, namely Sabah and Sarawak. The case with the selection of two states involves the Hospitality Department, which has three programs: Cosmetology, Culinary Arts and Bakery and Pastry. These two states are selected to increase the population capacity to facilitate the acquisition by using a large population. The sample to be used is to take the entire population. The total population is 117 people. The researcher will take a sample of 90 percent (%) of the existing population to strengthen the researcher's data further. The total sampling taken was 105 lecturers. Sampling is selected using the snowball method. The snowball method is done when the researcher undergoes training or even a course involving Vocational College lecturers throughout Malaysia; the researcher will use the opportunity to obtain data for the study. Accordingly, the programs involved in this study are Culinary Arts, Bakery and Pastry and Cosmetology.

3.2 Data and Sources of Data

After the questionnaire was distributed and answered, it was collected again to analyze the data in the form of knowledge. All data will be collected through a questionnaire, which needs to be checked first to ensure that the respondents answer the questionnaire according to the procedures set before the data analysis process is carried out. Data has been obtained, analyzed and processed to obtain conclusions and solutions to the problems to be studied. Data and information were obtained and analyzed by computer using Statistical Package For Social Science Version 26.0 For Windows (SPSS). Using SPSS programming software in static data analysis can produce accurate calculations (Mohd Majid, 2005).

Table 3.2 : Interpretation of Mean Score

Mean Score	Interpretation Mean Sore
1.00-2.33	Low
2.34-3.67	Medium
3.68-5.00	High

Source : Pallant (2011)

Table 3.3 : Interpretation of Correlation (r)

Coefficient Value	Relationship Degree
.10-.29	Poor relationship
.30-.49	Moderate Relationship
.50-1.0	Strong Ties

Source : Cohen (1988)

Descriptive analysis is an analysis that can display the distribution of data. In this study, the forms of analysis used are frequency, percentage, ANOVA and Pearson Correlation.

IV. RESULTS AND DISCUSSION

4.1 Results of Descriptive Statics of Study Variables

	Instrument	Data Analysis
1.	Respondent demographics.	Frequency and percentage
2.	Use of Teaching Applications	Frequency and percentage
3.	Level of ICT Knowledge in Teaching	Mean Percentage
4.	ICT Use Skills in Teaching	Mean Percentage
5.	Determine the difference between the Knowledge Level of ICT and the Programme at Vocational College	Anova
6.	Determine the difference between ICT Use Skills and Programs at Vocational College	Anova
7.	Determine the relationship between the level of knowledge and ICT skills	Pearson Correlation

Table 4.2 : Level of ICT Knowledge in the Teaching and Learning Process

No	Items	Mean	SD	Level
C1	I know basic programs like Words, Powerpoint, Excel and so on.	4.82	0.39	High
C2	I know network information search tools like Google, Yahoo!, Bing and others.	4.75	0.43	High
C3	I know the communication system. For example email, forum, Chat, Video Conference (Zoom or Google Meet)	4.73	0.52	High

C4	I know various applications for digital libraries and databases	3.96	0.85	High
C5	I know YouTube Slideshare, Picasa, Flickr, Blogger, Wikispaces and others.	3.77	0.74	High
C6	I understand spaces for social interaction such as Facebook, Instagram, Pinterest and others.	4.41	0.77	High
C7	I know applications for image, audio, video editing such as Photoshop, Pixelmator, Audacity, Power Sound Editor, Window Movie Maker, iMovie and so on.	3.78	0.99	High
C8	I know virtual teaching and learning platforms such as Google Classroom, Kahoot, Quizizz, Hot Potatoes, JClic and so on.	4.30	0.74	High
C9	I know applications for data analysis such as SPSS, Mystat, Nud and so on.	3.44	0.81	Moderate
C10	I am aware of educational network resources such as Google Translate, courses, podcasts, repositories of learning objects.	4.05	0.75	High
C11	I am aware of virtual materials for teaching and learning such as e-portfolios, educational websites, Wikis, Video Games and so on.	3.30	0.88	Moderate
	Total	**4.12**	**0.41**	High

Table 4.2 shows the data analysis regarding the mean and standard deviation of the level of ICT knowledge in teaching shows that the overall interpretation is as high as (M=4.12, SD=0.41). The mean value of each item is at a moderate to the high level, between the range of 3.30 to 4.83. The highest mean range (M=4.82, SD=0.39) is on the first item; I know basic programs like Word, Powerpoint, Excel, etc. Data explains that all lecturers at the Vocational College use Microsoft software to make teaching and learning successfully by developing notes, quizzes and so on for students. Next, the second highest is with the mean reaching (M=4.75, SD=0.43) on the item; I know network information search tools like Google, Yahoo!, Bing and others. This shows that most lecturers and teachers use search engines to find information to implement student teaching and learning. On the other hand, the lowest mean value is the last item, C11, which is "I know virtual materials for teaching and learning such as e-portfolio, educational websites, Wiki, Video Games and so on." (M= 3.30, SD= 0.88). The researcher analyzed the item; the lecturer did not know the application or recognize it.

Table 4.3 : ICT Use Skills in teaching

No	Items	Mean	SD	Level
C1	I used basic programs like Words, Powerpoint, Excel and so on.	4.80	0.40	High
C2	I used network information search tools like Google, Yahoo!, Bing and others.	4.60	0.53	High
C3	I used the communication system. For example email, forum, Chat, Video Conference (Zoom or Google Meet)	4.69	0.56	High
C4	I used various applications for digital libraries and databases	3.24	1.27	Moderate
C5	I used YouTube Slideshare, Picasa, Flickr, Blogger, Wikispaces and others.	3.60	1.01	Moderate
C6	I used spaces for social interaction such as Facebook, Instagram, Pinterest and others.	4.24	0.88	High
C7	I used applications for image, audio, video editing such as Photoshop, Pixelmator, Audacity, Power Sound Editor, Window Movie Maker, iMovie and so on.	3.19	1.38	Moderate
C8	I used virtual teaching and learning platforms such as Google Classroom, Kahoot, Quizizz, Hot Potatoes, JClic and so on.	3.72	1.34	High
C9	I used applications for data analysis such as SPSS, Mystat, Nud and so on.	2.61	1.27	Moderate
C10	I am aware of educational network resources such as Google Translate, courses, podcasts, repositories of learning objects.	4.16	0.80	High
C11	I am aware of virtual materials for teaching and learning such as e-portfolios, educational websites, Wikis, Video Games and so on.	2.99	1.40	Moderate
	Total	**3.80**	**0.52**	High

Table 4.2 above shows the data analysis regarding the mean and standard deviation of ICT Use Skills in teaching, showing that the overall interpretation is as high as (M=3.80, SP=0.52). Item D1, I use basic programs such as Word, Power point, Excel and so on, is the item with the highest mean of 4.80 with a standard deviation of 0.40. The researcher analysed that the lecturer used the application frequently and was skilled in using the application. Item "I use a communication system. For example, email, forum, Chat, Video Conference (Zoom or Google Meet)" is the second highest mean value (M=4.69, S=0.56) which shows that lecturers use it a lot as the application when running teaching and learning virtually and even it makes work easier. Lecturer's work by giving virtual assignments to students. On the other hand, for item D9, the lowest mean value is that I use applications for data analysis such as SPSS, Mystat, Nud and so on (M= 2.61, S= 1.27). In this item, it is possible that most lecturers do not use this application because it involves an application that will generate statistics.

Table 4.3 : Pearson Correlation Analysis of Level of Knowledge on ICT Use Skills in Teaching and Learning

		ICT Use Skills	ICT Knowledge Level
ICT Use Skills	Pearson Correlation	1	.685**
	Sig. (2 tailed)		.000
	N	105	105
ICT Knowledge Level	Pearson Correlation	.685**	1
	Sig. (2 tailed)	.000	
	N	105	105

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

Relationship between the level of knowledge and the skill of using ICT in teaching and learning.
Table 4.3 shows the relationship between ICT Knowledge Level and ICT Use Skills in Teaching and Learning. Findings show a significant relationship between ICT Knowledge Level and ICT Use Skills. A positive relationship exists for aspects of Knowledge Level (r=.685) and Use Skills (r=.685) with positive strength (Cohen & Manion, 1994).

Discussion

From the findings studied in this study, overall, the ICT knowledge and skills of selected vocational college lecturers in the states of Sabah and Sarawak are at a high level for some of the applications used. Proven in the findings of the study conducted by the researcher, who found that the use of applications such as Microsoft Word, Microsoft Excel, Google Classroom, Youtube, and Video Conferences (Zoom and Google Meet) are applications that are often used in teaching and learning both virtually and physically. However, some applications that do not get attention and get a low amount of frequency, such as Padlet, Nearpod, Web2.0 and Classkick. This may happen because lecturers need to recognize the application and be introduced to them through popular learning applications.

In addition, through the findings conducted by this researcher, it was found that the level of ICT knowledge against ICT use skills in teaching and learning shows a significant relationship between the variables. This can be proven by finding the mean score for the level of knowledge and skill of use, showing both variables at a high rate. The study's findings based on the study's objectives, as stated in Chapter 1, show the mean results that scored high on several items answered by the respondents in this study. The study shows that lecturers are more knowledgeable in using applications that are frequently and constantly used in the teaching and learning process that is done both physically and virtually. This happens with the lecturer's high knowledge of applications such as Word, Powerpoint and Excel applications for making notes, slides, entering marks and so on. The level of knowledge and skills of lecturers in using information search is also high. This is so because lecturers search a lot regarding theoretical and practical teaching that will be shown to Vocational College students. Lecturers need to add knowledge related to the skills to be taught to students. In addition, lecturers also need to increase their knowledge in obtaining external courses to improve their respective skills.

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