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Mastery of Information Technology among Malay Language Students

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Astract

Information and communication technology skills are some of the most important components that are emphasized by employers today. This rapid technological development makes the curriculum in institutions of higher learning to apply technological elements in teaching and learning. Students are not left behind in the field of language to enable them to compete in the career market after completing their studies. To that end, a survey using a questionnaire was conducted to identify the level of information and communication technology skills among students in the field of language. A total of 30 samples from 9(30.0%) men and 21(70.0%) were female students in the fifth semester to the final semester of the Bachelor of Arts (Malay Language and Linguistics). In total, 11(36.7%) students are moderately skilled and 19(63.3%) are highly skilled in information and communication technology skills. Most of the students surveyed also spend more than seven hours surfing the Internet which is usually browsed through their respective smartphones. Usually, these students surf the Internet to access email, for entertainment and curiosity.

Keywords: Language Learners, Technological Skills, Career Opportunities, Higher Education, Malay Language

Introduction

The explosion of globalization demands Malaysia, a country heading towards a developed country to compete in various fields. This competition is included in the world of education to produce world-class education. If we look at the rate of development of national road and penetration, it is noticeable that the development occurred drastically, from 24.8% in 2009 to 55.6% in 2011 (Mohamed et al., 2012). This is because information and communication technology comes the fastest growing technology after the computer and communication revolution (Omar et al., 2006). The importance of the field of information and communication technology is further evidenced by the launch of the ASEAN Communication and Information Technology Master Plan 2015 on 14 January 2014 and the establishment of the Multimedia Super Corridor which is one of the strategic steps to achieve developing country status by 2020 (Alias, 2004). To get through the current globalization, the digital age is considered very important and a priority of developing countries (Mohamed et al., 2012). The rapid development of technology has prompted employers around the world to place information

technology skills as one of the conditions and criteria of employees required by a company (Jusoh, 2018).

This need has become an important agenda of the country and is the responsibility of higher education to produce a highly competitive workforce and meet the needs of the market (Madar et al., 2008). The same goes for local institutions of higher learning as most of them have e-learning policies that mandate the use of e-learning among lecturers and students (Emi, 2010). Regardless of the field of study, knowledge of information technology is incorporated into teaching and learning activities. This is proved by the existence of the Language in Multimedia courses to be taken by students, like the Bachelor of Arts Malay Language and Linguistics, Faculty of Modern Language and Communication, Universiti Putra Malaysia. The importance of this technology is reflected when the 2017 curriculum review has changed the name of this course to Multimedia in Language.

The need for this technological development also hit Malaysia when the development rate of road and coverage in the country increased drastically in a short time. The Ministry of Communications and Multimedia Malaysia and the cyber law act in Malaysia have also been created as a result of the rapid development of this technology. Apart from that, the former Prime Minister also launched the ASEAN Communication and Information Technology Master Plan 2015 on 14 January 2014 which proves that the country is not left behind in pursuing the rapid development of information and communication technology. This is because the Internet is a global media that is powerful and has the potential to control the whole world (Pitchan et al., 2017).

The Internet plays an important role in the world of communication and information and is used as a medium to convey and obtain information (Pitchan et al., 2017). This is detailed by Mustafa and Hamzah (2011) who said that users usually use the Internet for various purposes such as finding friends, having fun, and getting support or help from the online community from time to time. This situation makes society more literate to information technology regardless of the generation they were born in. This can be observed as not only every group of people owns a smartphone but also has its internet network offered by telecommunication companies. Therefore, it is not impossible when employers place these information technology skills as a prerequisite for employee selection. This is because computer skills are among the generic skills that are important and need to be mastered by students in preparation to enter the world of work (Mohd et al., 2001). Davis (1997) reported that 83.3% of employers have high expectations of graduates in computer skills and it is one of the factors seen for hiring. Among the computer literacy skills are the ability to use certain software applications for obvious tasks such as word processing, email, and the internet (Ismail, 2010). The development of science and technology also has a positive influence on learning (Auzar, 2012). This opinion is supported by Aladdin et al. (2004) who said that the use of computers has been proven to have considerable and dynamic potential in language teaching and learning. This is because multimedia application software helps the teaching process of teachers to be more flexible and effective (Mahamod & Mohamad, 2011).

However, the analysis of the gap of marketability characteristics according to the priorities conducted by Ismail (2012) especially for the needs of information and communication technology skills, found that the actual performance of graduates is still below the expected performance of employers. This should not have happened because these graduates were born in an era of rapid technological development. According to Agus et al. (2016) individuals born in the early 2000s, are known as Generation Z or Generation Net. However, Suthagar et al. (2011) argued that this generation was born after 1985. This generation is said to be born during

the rapid development of technology makes them sensitive to information and communication technology (Agus et al., 2016). The Net Generation or Millennium Generation is said to have the skills and know how to use various types of digital technology (Kiam-Sam & Adul, 2014). However, information technology skills and knowledge still need to be given attention (Suthagar et al., 2011). This opinion is supported by Oliners (2005) who states that although this generation can use a variety of technology applications without manual instruction, understanding the technology or quality of its resources may be difficult. Therefore, this survey was conducted to identify to which extent students' skills are categorized in this Net Generation in information and communication technology especially skills in using basic computer software.

Methods

This survey study was conducted on students who took the M3410 Multimedia in Language course in the first semester of 2017/2018 at the Faculty of Modern Languages and Communication, Universiti Putra Malaysia. This course is compulsory for Bachelor of Arts Malay Language and Linguistics students in the second year of their studies. A total of 30 samples answered this questionnaire, namely 9(30%) were male students and 21(70%) were female students. Looking at the distribution of the nation, the majority of study participants are Malays, which is 25 people (83.3%). Participants in this study met the characteristics of the Net Generation as they were born between the year 1992 to 1995, which is after 1985. This survey was conducted to achieve the following objective:

1. To identify the level of information and communication technology skills among students in the field of language

This questionnaire was distributed in the first week of the lecture to enable lecturers to get an initial overview of information technology mastery among students. The next step is to help the lecturer formulate a teaching and learning plan appropriate to the student's mastery. A total of 118 items were built which were divided into five parts, namely measuring the mastery of information technology, word processing software (Word), presentation software (PowerPoint), electronic spreadsheets (Excel), and mastery of skills using the Internet. Data were obtained through questionnaires using ordinal scales of semantic differences and analyzed using IBM SPSS 22 (Statistical Package for the Social Science) software. This constructed item as a whole obtained a high reliability value when the Cronbach Alpha coefficient value, $\alpha = 0.987$ was recorded. Whereas, the Cronbach Alpha coefficient for each part or construct between, $\alpha = 0.933$ to $\alpha = 0.976$ indicates that this constructed item has high reliability. According to Guilford (1956), $\alpha = 0.7$ is most satisfactory and Pallant (2001) suggests that the alpha index value, $\alpha = 0.7$ and above is good for items ten and above.

Results

Discussion of the findings of this study is made based on three levels of mastery, namely unskilled with a mean score value between 1.00 to 4.00, moderately skilled with a mean score between 4.01 to 7.00, and skilled with a mean score between 7.01 to 10.00. Based on Table 1, students were found to be very skilled in information technology skills ($M = 7.34$; $SP = 1.28$). However, they were found to be moderately skilled in basic computer skills ($M = 6.57$; $SP = 1.32$) and electronic spreadsheets (Excel) ($M = 5.97$; $SP = 2.11$) which are the basic software that they often use throughout their higher education. There is 1(3.3%) who is not proficient in basic

computer software and presentation software (PowerPoint) and a total of 7(23.3%) students are not proficient in electronic spreadsheet software (Excel). On the other hand, students were found to be proficient in using the Internet when they recorded the highest mean value, which is 8.03 with a standard deviation value of 1.24.

Tale 1. Level of Information Technology Skills

Software Skills	Mastery Level			Mean	SD
	Unskilled	Moderately Skilled	Skilled		
Computer basics	1(3.3%)	18(60.0%)	11(36.7%)	6.57	1.32
Word Processing	0	5(16.7%)	25(83.3%)	7.89	1.30
PowerPoint	1(3.3%)	9(30.0%)	20(66.7%)	7.66	1.60
Excel	7(23.3%)	14(46.7%)	9(30.0%)	5.97	2.11
Internet	0	7(23.3%)	23(76.7%)	8.03	1.24
Total	0	11(36.7%)	19(63.3%)	7.34	1.28

Although students were found to have mastered these information technology skills, the overall mean value is 11(36.7%) out of 30 students for moderately proficient. This figure is quite large and should not happen among Net Generation students and students in institutions of higher learning because not only they were born in the rapidly evolving technology era but are provided with various technological facilities in higher education under current demands.

No.	Items	Mastery Level			Mean	SD
		Unskilled	Moderately Skilled	Skilled		

1.	Word	0	4(13.3%)	26(86.7%)	8.47	1.28
2.	Flash	18(60.0%)	10(33.3%)	2(6.7%)	3.60	2.24
3.	Paint	4(13.3%)	12(40.0%)	14(46.7%)	6.67	2.09
4.	Excel	5(16.7%)	18(60.0%)	7(23.3%)	5.93	1.84
5.	Email	1(3.3%)	3(10.0%)	26(86.7%)	8.73	1.46
6.	Graphics	9(30.0%)	16(53.3%)	5(16.7%)	5.53	2.26
7.	Internet	1(3.3%)	5(16.7%)	24(80.0%)	8.57	1.55
8.	Antivirus	7(23.3%)	13(43.3%)	10(33.3%)	6.40	1.90
9.	Calculator	4(13.3%)	12(40.0%)	14(46.7%)	7.33	2.22
10.	Photoshop	17(56.7%)	10(33.3%)	3(10.0%)	4.00	2.23
11.	File Format	11(36.7%)	14(46.7%)	5(16.7%)	5.03	2.51
12.	PowerPoint	2(6.7%)	6(20.0%)	22(73.3%)	8.07	1.70
13.	Hardware	9(30.0%)	13(43.3%)	8(26.7%)	5.90	2.32
14.	Print Screen	4(13.3%)	6(20.0%)	20(66.7%)	7.83	2.07
15.	Sticky Notes	3(10.0%)	8(26.7%)	19(63.3%)	7.73	2.23
16.	Snipping Tool	6(20.0%)	10(33.3%)	14(46.7%)	6.53	2.80
17.	Windows/Office	1(3.3%)	10(33.3%)	19(63.3%)	7.40	2.01
18.	Backup Program	8(26.7%)	14(46.7%)	8(26.7%)	5.60	2.37
19.	Restore Program	7(23.3%)	14(46.7%)	9(30.0%)	5.83	2.38
20.	Hardware Function	8(26.7%)	12(40.0%)	10(33.3%)	5.87	2.54
21.	Upload document	1(3.3%)	7(23.3%)	22(73.3%)	8.07	1.57
22.	Download document	2(6.7%)	6(20.0%)	22(73.3%)	8.13	1.66
23.	Fax & scanner machine	4(13.3%)	12(40.0%)	14(46.7%)	6.73	2.13
24.	Data analyzing using IM SPSS	17(56.7%)	12(40.0%)	1(3.3%)	3.80	2.23
Total		1(3.3%)	18(60.0%)	11(36.7%)	6.57	1.32

A total of 24 items was constructed to measure the level of basic computer skills among the students of Malay language and linguistics at the Faculty of Modern Language and Communication, Universiti Putra Malaysia. Out of 24 items, students were found to be unskilled in 3(12.5%) items, namely Flash ($M = 3.60$; $SP = 2.24$), Photoshop ($M = 4.00$; $SP = 2.23$), and IM SPSS ($M = 3.80$; $SP = 2.23$). Students were found to be moderately proficient in 11(45.8%) items as they obtain a mean value between 5.03 to 6.73 and proficient in 10 items (41.7%) as they obtain a mean value between 7.33 to 8.73. Students were found to be proficient in using email when they recorded the highest mean value, which is 8.73 with a standard deviation value of 1.46.

Overall, the students who were the sample of this study were moderately proficient in mastering basic computer skills. This matter needs to be emphasized because as students in institutions of higher learning and in a research university, the students should master these basic skills. Although courses related to information and multimedia technology as well as the absorption of technological elements throughout the study have been available, they were found to have not mastered them properly. This should be taken seriously as only one out of 24 items in this section has no unskilled students. On the other hand, at least one of 18 people is not proficient in the remaining 23 items.

TABLE 3. Level Word Processing Skills

No.	Items	Mastery Level
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		Unskilled	Moderate ly Skilled	Skilled	Mean	SD
1.	Picture	0	8(26.7%)	22(73.3%)	8.27	1.34
2.	Shapes	0	11(36.7%)	19(63.3%)	8.20	1.47
3.	ullets	0	7(23.3%)	23(76.7%)	8.33	1.24
4.	Symol	1(3.3%)	7(23.3%)	22(73.3%)	8.17	1.39
5.	Margins	2(6.7%)	6(20.0%)	22(73.3%)	7.93	1.91
6.	Equation	4(13.3%)	15(50.0%)	11(36.7%)	6.63	2.19
7.	Text ox	0	7(23.3%)	23(76.7%)	8.43	1.48
8.	Font Size	0	2(6.7%)	28(93.3%)	8.90	1.16
9.	Find Word	1(3.3%)	8(26.7%)	21(70.0%)	8.03	1.73
10.	Orientation	3(10.0%)	10(33.3%)	17(56.7%)	7.23	2.28
11.	Page Color	4(13.3%)	8(26.7%)	18(60.0%)	7.50	2.18
12.	Watermark	4(13.3%)	13(43.3%)	13(43.3%)	6.90	2.06
13.	Paper Size	1(3.3%)	8(26.7%)	21(70.0%)	7.83	1.62
14.	Numering	1(3.3%)	6(20.0%)	23(76.7%)	8.33	1.42
15.	Draw Tale	1(3.3%)	4(13.3%)	25(83.3%)	8.40	1.38
16.	Page reak	2(6.7%)	8(26.7%)	20(66.7%)	7.83	1.86
17.	Merge Cells	1(3.3%)	8(26.7%)	21(70.0%)	7.70	1.97
18.	Word Count	2(6.7%)	7(23.3%)	21(70.0%)	7.80	1.71
19.	Insert Tale	1(3.3%)	4(13.3%)	25(83.3%)	8.50	1.41
20.	Delete Tale	0	4(13.3%)	26(86.7%)	8.70	1.12
21.	Page orders	2(6.7%)	7(23.3%)	21(70.0%)	7.90	1.81
22.	Page Numer	0	3(10.0%)	27(90.0%)	8.70	1.12
23.	Text Direction	2(6.7%)	13(43.3%)	15(50.0%)	7.30	2.07
24.	Replace Word	2(6.7%)	9(30.0%)	19(63.3%)	7.93	1.66
25.	Track Changes	7(23.3%)	11(36.7%)	12(40.0%)	6.27	2.57
26.	Change the font	1(3.3%)	5(16.7%)	24(80.0%)	8.33	1.67
27.	Paragraph Marks	5(16.7%)	10(33.3%)	15(50.0%)	6.77	2.67
28.	Header & Footer	1(3.3%)	6(20.0%)	23(76.7%)	8.10	1.63
29.	Insert Row	1(3.3%)	6(20.0%)	23(76.7%)	8.37	1.35
30.	Text Highlight Color	0	7(23.3%)	23(76.7%)	8.33	1.37
31.	Insert Columns	1(3.3%)	5(16.7%)	24(80.0%)	8.50	1.38
32.	oarders & Shading	3(10.0%)	8(26.7%)	19(63.3%)	7.60	2.01
33.	Set Proofing Language	6(20.0%)	12(40.0%)	12(40.0%)	6.67	2.26
Total		0	5(16.7%)	25(83.3%)	7.89	1.30

Tale 3 shows the level of mastery of skills in using word processing software among students. Students were found to e proficient in using this software when 28(84.8%) items they mastered and 5(15.2%) items were moderately proficient. However, if we look at all 33 items, 25(75.8%) items recorded etween 1(3.3%) to 7(23.3%) students who are not proficient in these skills, especially in Track Changes (M = 6.27; SP = 2.57). On the other hand, only 8 items (Picture, Shape, ullets, Text Size, Font Size, Delete Tale, Page Numer and Text Highlight Color) did not have the numer of unskilled students and students were found to e the most skilled in Font Size (M = 8.90; SP = 1.16).

TALE 4. Level of PowerPoint Software Skills

No.	Items	Mastery Level			Mean	SD
		Unskilled	Moderately Skilled	Skilled		
1.	Crop	1(3.3%)	4(13.3%)	25(83.3%)	8.60	1.48
2.	Rotate	1(3.3%)	5(16.7%)	24(80.0%)	8.50	1.50
3.	Hyperlink	4(13.3%)	13(43.3%)	13(43.3%)	6.87	2.30
4.	Print Slide	0	4(13.3%)	26(86.7%)	8.90	1.09
5.	Animation	4(13.3%)	11(36.7%)	15(50.0%)	7.03	2.36
6.	Insert Video	2(6.7%)	10(33.3%)	18(60.0%)	7.67	1.97
7.	Insert Audio	2(6.7%)	11(36.7%)	17(56.7%)	7.70	1.86
8.	Picture Style	1(3.3%)	10(33.3%)	19(63.3%)	7.93	1.70
9.	Insert Picture	0	7(23.3%)	23(76.7%)	8.47	1.36
10.	Insert Clip Art	0	8(26.7%)	22(73.3%)	8.30	1.29
11.	Group Objects	5(16.7%)	12(40.0%)	13(43.3%)	6.77	2.54
12.	Picture Effects	2(6.7%)	9(30.0%)	19(63.3%)	7.63	2.09
13.	Artistic Effects	4(13.3%)	13(43.3%)	13(43.3%)	6.87	2.39
14.	Change Picture	1(3.3%)	9(30.0%)	20(66.7%)	8.00	1.58
15.	Change Theme	0	9(30.0%)	21(70.0%)	8.13	1.48
16.	Slide Orientation	3(10.0%)	8(26.7%)	19(63.3%)	7.73	2.20
17.	Arrange Objects	5(16.7%)	11(36.7%)	14(46.7%)	6.97	2.61
18.	Rehearse Timing	5(16.7%)	11(36.7%)	14(46.7%)	6.90	2.45
19.	Background Style	1(3.3%)	10(33.3%)	19(63.3%)	7.63	1.90
20.	Compress Picture	5(16.7%)	10(33.3%)	15(50.0%)	7.07	2.45
21.	Set Up Slide Show	2(6.7%)	8(26.7%)	20(66.7%)	7.73	2.21
22.	Insert Photo Album	2(6.7%)	10(33.3%)	18(60.0%)	7.73	1.96
23.	Remove background	1(3.3%)	9(30.0%)	20(66.7%)	7.87	1.96
24.	Change Picture order	3(10.0%)	8(26.7%)	19(63.3%)	7.67	2.15
25.	Picture Correction Option	4(13.3%)	11(36.7%)	15(50.0%)	6.90	2.16
Total		1(3.3%)	9(30.0%)	20(66.7%)	7.66	1.60

To measure the level of mastery of presentation software or PowerPoint skills, a total of 25 items have been developed. Out of 25 items, 6(24.0%) items were moderately skilled and the rest were proficient. Overall, students were found to be proficient in using this presentation software ($M = 7.66$; $SP = 1.60$). However, if we look at each item, we found that only four items (Print Slide, Insert Picture, Insert Clip Art and Change Theme) have no unskilled students. In contrast, 19(76.0%) items found that at least 1(3.3%) to 5(16.7%) did not master the skill.

TALE 5. Level of Excel Skills

No.	Items	Mastery Level			Mean	SD
		Unskilled	Moderately Skilled	Skilled		
1.	Sort	11(36.7%)	12(40.0%)	7(23.3%)	5.40	2.37
2.	Decimal	12(40.0%)	11(36.7%)	7(23.3%)	5.17	2.34
3.	AutoSum	12(40.0%)	11(36.7%)	7(23.3%)	5.17	2.31

4.	Wrap Text	8(26.7%)	15(50.0%)	7(23.3%)	5.57	2.31
5.	Print Sheet	5(16.7%)	13(43.3%)	12(40.0%)	6.70	2.35
6.	Insert Cells	5(16.7%)	13(43.3%)	12(40.0%)	6.57	2.30
7.	Sort & Filter	8(26.7%)	13(43.3%)	9(30.0%)	5.87	2.47
8.	Insert Sheet	7(23.3%)	12(40.0%)	11(36.7%)	6.20	2.38
9.	Change Font	7(23.3%)	9(30.0%)	14(46.7%)	6.53	2.70
10.	Insert Function	9(30.0%)	12(40.0%)	9(30.0%)	5.80	2.55
11.	Merge & Center	10(33.3%)	9(30.0%)	11(36.7%)	5.70	2.69
12.	Insert Worksheet	10(33.3%)	12(40.0%)	8(26.7%)	5.47	2.60
13.	Insert Sheet Rows	6(20.0%)	12(40.0%)	12(40.0%)	6.23	2.47
14.	Change Font Size	5(16.7%)	8(26.7%)	17(56.7%)	6.97	2.57
15.	Insert Sheet Column	6(20.0%)	10(33.3%)	14(46.7%)	6.57	2.62
16.	Change Format Cell	10(33.3%)	9(30.0%)	11(36.7%)	5.60	2.79
Total		7(23.3%)	14(46.7%)	9(30.0%)	5.97	2.11

A total of 16 items was constructed to measure the level of proficiency using spreadsheet software (Excel) among students. Overall, students were found to be moderately skilled when 5(15.7%) to 12(40.0%) students did not master this skill. The mean score recorded for all items ranged from 5.17 to 6.97 with an overall mean score of 5.97. This situation illustrates that the students are not using this software as much during the study. The lowest mean scores recorded for this skill were for Decimal and AutoSum items. Meanwhile, the highest mean score is for the Change Font Size item.

TALE 6. Level of Proficiency in Using the Internet

No.	Items	Mastery Level			Mean	SD
		Unskilled	Moderately Skilled	Skilled		
1.	e-SMP	0	2(6.7%)	28(93.3%)	9.20	0.89
2.	YouTue	0	3(10.0%)	27(90.0%)	9.10	1.06
3.	Putralast	0	4(13.3%)	26(86.7%)	8.87	1.38
4.	Google Maps	0	8(26.7%)	22(73.3%)	8.37	1.67
5.	Google Scholar	2(6.7%)	5(16.7%)	23(76.7%)	8.20	1.63
6.	Watch video	1(3.3%)	6(20.0%)	23(76.7%)	8.67	1.47
7.	Internet Explorer	2(6.7%)	5(16.7%)	23(76.7%)	8.50	1.63

8.	Google Translate	1(3.3%)	5(16.7%)	23(76.7%)	8.73	1.55
9.	Find information	0	3(10.0%)	27(90.0%)	8.87	1.25
10.	Online software	1(3.3%)	11(36.7%)	18(60.0%)	7.93	1.72
11.	Generating log	11(36.7%)	7(23.3%)	12(40.0%)	5.83	2.82
12.	Uploading material	3(10.0%)	7(23.3%)	20(66.7%)	8.07	1.84
13.	Downloading material	1(3.3%)	7(23.3%)	22(73.3%)	8.30	1.56
14.	buy & sell online	1(3.3%)	10(33.3%)	19(63.3%)	7.87	1.87
15.	Using email	1(3.3%)	5(16.7%)	24(80.0%)	8.60	1.63
16.	Online games	8(26.7%)	8(26.7%)	14(46.7%)	6.37	2.75
17.	Generating website	9(30.0%)	13(43.3%)	8(26.7%)	5.60	2.77
18.	Read newspaper online	0	12(40.0%)	18(60.0%)	7.77	1.59
19.	Attach documents using email	0	8(26.7%)	22(73.3%)	8.37	1.61
20.	Sending emails using Google Drive	4(13.3%)	9(30.0%)	17(56.7%)	7.30	2.28
Total		0	7(23.3%)	23(76.7%)	8.03	1.24

A total of 20 items were constructed to measure the level of mastery of Internet skills among students. Overall, students were found to be proficient in using the Internet when they recorded a mean score of 8.03 with a standard deviation of 1.24 and no students were unskilled in using these skills. However, looking at each item, there are three items (producing logs and websites as well as online games) that recorded a moderate mean score, when a total of 8(26.7%) to 11(36.7%) students were unskilled in this section. Meanwhile, students are most skilled in using e-SMP ($M = 9.20$; $SP = 0.89$) and YouTube ($M = 9.10$; $SP = 1.06$). This is because e-SMP is a system that must be used by students throughout the study, which is for course registration and checking the results from time to time throughout the lecture.

Conclusion

Overall, it can be concluded that most of the students studied were proficient in using word processing software (Word) when 83.3% of the students mastered it. This is followed by Internet usage skills with 76.7%, presentation software (PowerPoint) of 66.7%, basic computer software of 36.7%, and electronic spreadsheets (Excel) has of 30.0% of students mastering it. Based on these findings, it can be concluded that students master the Word processing software because they often used it to complete assignments throughout their studies. On the other hand, the second highest component, which is the internet software may be due to the Wi-Fi facilities provided by the university or faculty to make it easier for students to find information. Besides that, students or samples involved in this study also spend a lot of time surfing the Internet. Half of the students surveyed spending more than seven hours a week. The findings show that these students spend at least two to three hours a week surfing the Internet. All students were found surfing the Internet for email purposes. Internet facilities are also used for entertainment, curiosity, chat, file transfer, social networking, getting help and information, completing tasks and downloading software. Commonly, they used personal laptops and smartphones respectively.

Some students surf the Internet through smartphone applications only and some students use personal computer desktops. This is supported by the opinion of Siew et al. (2016) who said that although students are aware of the importance of technology in learning, students are more likely to use information technology and communication for social purposes rather

than academics. Based on a study conducted by Gaarre et al. (2013), the use of mobile phones or smartphones in most cases is less preferred than computer laptops due to the small screen size. However, for this study, students were found to be frequently using both to surf the Internet.

The students were also found to own more than one computer. This proves that the students in this generation know the importance of technology and it can be said that computer ownership is a basic need for them. All students involved in this study own a computer either a personal laptop or a personal desktop. When asked about the source of their knowledge of computers, students were found to acquire the source of computer skills through more than one source. For example, through self-awareness and efforts, friends, the mass media and some attend courses to increase their knowledge (Jusoh et al., 2018). These students have high expectations that multimedia applications will be implemented in their classrooms (Sahrir & Alias, 2011). Therefore, this survey can help the lecturers' design teaching and learning activities, also knowing the level of information and communication technology skills among students. In return, it can produce students who can compete in the job market that requires current graduates to possess these generic skills.

Contribution to Knowledge

This study was conducted based on the ASSURE model, which is to conduct an analysis of students' knowledge of information technology before the lecture. Multimedia in Language is implemented for a period of 14 weeks. This analysis of student knowledge is important to conduct to acquire students' existing knowledge and formulate the next learning process. This is because if the lecturer repeats the teaching that has been mastered by the students, it is likely that the teaching and learning sessions will be boring and students did not gain new knowledge. By analyzing existing knowledge in the field of technology to students, lecturers can not only know the extent of students' existing knowledge, but can also design more enjoyable teaching and learning activities. This analysis of technological knowledge is important to be carried out, especially among the Net generation who are well aware that the generation born in the age of technology is growing rapidly. Therefore, of course this generation is no stranger to technological skills. However, the extent to which their technological knowledge needs to be identified to ensure that this technological knowledge is aligned for their social and learning needs. Based on the findings, the sample studied, namely the Bachelor of Arts Malay Language and Linguistics, who was born around 1992 to 1995, the Net generation has fulfilled the information and communication technology skills. Based on the analysis, student is found to dominate basic computer skills such as word processing software and the Internet. However, they were found to be less proficient in presentation software (PowerPoint), basic computer software and electronic spreadsheets (Excel). Therefore, based on this analysis, the lecturer will focus on learning three skills that have not been mastered by students. For example, to achieve their learning outcomes create a language project using multimedia software, students are exposed to the PowerPoint function in producing animation. For that, students need to explore and utilize PowerPoint software to produce multimedia projects in groups.

Implication of the Findings

This study of students' knowledge analysis of technological knowledge not only helps course lecturers to design teaching and learning methods that are appropriate to the needs of students, but also provides an initial overview of technological knowledge among Net generation students. Although they were born in the age of technology is growing rapidly and

spending a lot of time with technology, but the knowledge and skills possessed by these students can still be categorized as low. This is because most of the courses conducted apply technological elements either in terms of lecture delivery or the need for students to produce assignments and present the results of their assignments.

Based on the findings of this study, there is still a lot of room for improvement to improve the knowledge and skills of these students. This is because of the need and intense competition in the world of work. The need for technological skills is among the skills demanded by current employers. Therefore, to enable Malay language students to be able to compete with students in other areas, changes in teaching and learning activities are needed.

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