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# The Understanding and Usage of Computer Among UniMAP's First Year Diploma Engineering Students

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**Abstract**—Computer usage is vital especially in the new era of digital revolution. Users as young as kindergartens have been exposed to computers. Nevertheless, in primary and secondary schools, they are also utilising the computer systems and imparting knowledge and computer skills to their students. In UniMAP, the first year diploma students are all engineering students and can be considered as school leavers. Presumably, they might have some knowledge on computers regardless of courses they are taking. For 2010/2011 Academic Session, a survey that was done on all first semester diploma students by using a survey form as a tool for the purpose of this study. The result is shown from the feedbacks collected, which reflect their knowledge on computer. As engineers, they will not be able to escape from using computer to perform tasks such as analysis, generate results and others. This is not just during their study in higher institution, but also after their have graduated and labelled them as engineers. Hence, computer wisdom is important in both professional and non-professional fields.

*Keywords:* computer; technology; ICT; interactive multimedia; IT tools.

## I. INTRODUCTION

The advent of computer technologies have revolutionised our life in many ways. It is no longer the monopoly of the elite class, but also has reached the masses. For the haves, they may possess their own personal computers, but for the have-nots there are various ways that they can feel the touch of the computer systems such as internet and e-mails at designated places. For some, this is the time to make lucrative business of hiring them according to hours.

The impact from this explosion of new scientific knowledge in the form of computer technologies have altered the way we learn; the way we think; the way we communicate and many other behavioural traits that are completely different from the earlier generations [1]. Thus, computer literacy is fast growing among our young citizens.

Even children as early as Primary schools have been exposed to computer systems, whereby the education authorities and Parent-Teacher Associations (PTAs) have provided them with computer laboratories under the schools' computer clubs. Computer literacy now has reached an unprecedented height and has gone far

beyond the boundaries of urban areas into the rural areas. In short, it will become our way of life and for those who are still computer illiterate, will feel themselves out of place in this changing world. Such is the influence and significance of computer systems for the present generation and the next *ad infinitum* [1].

At university, computer systems are overwhelmingly essential that they cannot do without. No institutions can afford to lag behind with the development and progress of computer technologies. They have no choice but to persistently keeping themselves with state-of-the-art computer systems and high-tech gadgets [2]. In fact, very soon it can be predicted that the current mode of lecturing will become things of the past and ultimately be replaced by Interactive Multimedia (IM) [3], which would be the new approach of delivering lectures.

This research is meant to study on UniMAP's first year first semester diploma engineering students for 2010/2011 academic session of their understanding and usage of computer *per se*.

## II. CONCEPTUAL FRAMEWORK

Students are given an assignment after a couple weeks of commencing their study for the first semester on Information and Communication Technology (ICT). Three semesters have passed and yet most students failed to achieve the objectives of the assignment given to them for each of the semesters.

The researchers then decided to study on the knowledge of these students on ICT. All of the students are engineering students of different field namely Computer Engineering, Electric System Engineering and Microelectronic Engineering. They are all the current first year diploma students for 2010/2011 Academic Session.

ICT are vital in all field and it also played a part in engineering field. For example, if students ought to perform problem solving task, they would require writing a programme using one of the programming languages such as C-programming language [4]. Thus, hardware and software tools or even devices used are elements of ICT.

### III. METHODOLOGY

An approach that was taken for this study was by distributing questionnaires to 137 students. Students had been asked on various perceptive on ICT and all of the questions are generally on basic knowledge.

All of the students had been given a set of questionnaire and this would provide an opportunity for the researchers to discover their knowledge on ICT. This was done in order to extract the inside of the students understand of some basic knowledge of ICT.

Observation was done on each of the questions and analysing students' usage and understanding on computers by using SPSS system.

### IV. RESULTS

Having done the analysis, surprisingly the result showed that 41% of students did not even know what ICT stands for, let alone know what it is. This was beyond the researchers' expectation, as the current generation of students have been exposed to internet, Facebook, Twitter, Yahoo, Google and others [5], and by presuming that they know about the ICT tools. Hence, slightly above fifty percent of those have knowledge on ICT.

From the total of 41%, some of the students got it wrong and some was not sure on the question of what an ICT stands for. Whilst others got it right. 12 % actually attempted the question but got it wrong, whereas 29 % was not sure of the answers.

The result in Table 1 shows the number of students who managed to answer all questions on ICT, the ones answered incorrectly and who does know what ICT stands for and what it is. Thus, the researchers have discovered the students' knowledge on ICT.

Table 1: Computer Understanding and Usage Analysis Result

Total No. of Students	% Know	% Got It Wrong	% Do Not Know
137	59	12	29

### V. CONCLUSIONS

The conceptualisation of this study was to discover the first year first semester UniMAP diploma students' basic knowledge on computer and ICT. As stated earlier, the main objective of this study was to research on students' fundamental knowledge on understanding and their usage of computer.

From the result that the researchers have analysed, almost half of the students are lack in ICT knowledge, which they should have been at least be equipped with some basic erudition on computer knowledge.

Surely a profound study has to be conducted as this is an initial stage to the research.

The Education Minister Tan Sri Muhyiddin Yassin mentioned in The Star newspaper stating that the education policy in our country has taken a new leap forward and it is set to embrace Information and Communications Technology (ICT) as the main tool for teaching. This policy aims to use ICT as a vehicle to encourage creativity, collaborative learning, critical thinking and problem solving skills [6].

Thus, computer wisdom is important in both professional and non-professional fields, and either in teaching or learning area [7]. The present diploma students are embarking on a journey towards their future career as engineers and computers are essential especially in the current era of computer evolution.

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### REFERENCES

- [1] Syed Zulkarnain Syed Idrus, *Database Encryption for a Web-based Claims System*, Master's Thesis, Universiti Malaysia Perlis, Malaysia, 2008.
- [2] Beekman, G. & Beekman, B., *Tomorrow's Technology and You*, Prentice Hall, New Jersey, 2009.
- [3] Syed Zulkarnain Syed Idrus, Lecture 6: The Use of Technology in Communication [PowerPoint slides], Kangar, Perlis, Malaysia: Universiti Malaysia Perlis.
- [4] Evans, A., Martin, K. & Poatsy, M. A., *Technology in Action: Complete*, 6<sup>th</sup> ed., Prentice Hall, New Jersey, 2010.
- [5] Coyle, D. M., *Computers Are Your Future: Complete*, 10<sup>th</sup> ed., Prentice Hall, New Jersey, 2009.
- [6] Lim, A. ICT now a teaching tool. *The Star*, p. N4, 2010, October 13.
- [7] Shelly, G. B. & Vermaat, M. E., *Discovering Computers 2011: Living in a Digital World*. Cengage Learning: Boston, USA, 2010.