EDITORIAL BOARD

FOREWORD

First, I would like to express my utmost appreciation to the editorial team of ESTEEM Academic Journal, Volume 12, Number 2 of Universiti Teknologi MARA (UiTM) Pulau Pinang for their support, commitment and expertise in making this issue published on time.

In this issue, we have received overwhelming support from authors of various UiTM branches and likewise from other local and international universities. Eight articles from the field of social sciences were successfully published after undergoing through screening and reviewing processes. It is our hope that robust reviews and feedback communicated to the authors can enhance and promote academic research and writing quality. It is also our editorial board's aim to make such publication a platform for these budding researchers and academicians.

On behalf of the editorial board, I would like to express our gratitude to our Rector, Associate Professor Dr. Mohd. Fozi bin Ali and the Deputy Rector of Research, Industry, Community and Alumni Network, Dr. Nor Aziyah binti Bakhari for their unfailing support, advice, and stewardship. Our greatest appreciation also goes to the expert panels of internal and external reviewers for their assiduous efforts in evaluating and editing the manuscripts voluntarily as well as fostering academic collegiality. This publication would not have been possible without the support from the researchers and lecturers who have submitted their articles. We would like to thank them for their trust in us in publishing and disseminating their research works. Congratulations to those authors who have had their articles published in this issue! Finally, we would also like to thank all those who have directly or indirectly helped in making this issue possible. We look forward to your continued support in the future. To all readers, we hope that you will find this issue useful and gain profound knowledge from the studies done.

Associate Professor Dr. Song Saw Imm
Chief Editor
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CONTENTS OF JOURNAL

PRELIMINARY PERCEPTION OF TEACHING AND LEARNING USING TELEGRAM SOCIAL MEDIA TOOL

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ABSTRACT

The purpose of this study was to investigate the perception of students' using 'Telegram' as a support tool for teaching and learning. The population of this study was 66 students who were studying Bachelor of Electrical and Electronic Engineering at Universiti Teknologi MARA, Pulau Pinang. The students were exposed to the Telegram application as a supporting tool in their teaching and learning during Mac – September 2015 academic semester. At the end of the semester, an online survey consisting of a true-false question, several agreement-level questions and open-ended questions were developed using google form that was distributed to students via the Telegram application to collect their feedbacks. The student feedbacks were analysed to obtain results on their perception. The results indicated that the Telegram tool does support student learning process in term of easily sharing information and interaction with lecturers and their classmates. The obtained results could be used to motivate lecturers to employ the Telegram tool for supporting teaching and learning process.

Keywords: teaching and learning; education; social media tool; telegram; online survey; connectivism.

1. INTRODUCTION

As an engineering campus, Universiti Teknologi MARA Pulau Pinang (UiTMPP) are secured with good Information Communication Technology (ICT) infrastructures. Some of the strategic locations in UiTMPP such as the hostels, the student centres, the library and the main buildings are equipped with WiFi zones that are free of charge to students and staff. With the free WiFi, the students can use their smartphones and laptops to access to the internet. At some locations, whereby the free WiFi are unavailable, the students may use their own internet data. They can connect to internet and then use various types of Social Media Tools (SMTs) for interaction with friends and lecturers as well as for downloading course materials for their learning purposes.

This paper presents the implementation of Telegram application to support teaching and learning process at UiTMPP. For the case study, a few groups of undergraduate students and

lecturers are selected. The groups have been using the Telegram application for discussion, virtual notification, sharing notes and posting useful educational hyperlinks. To investigate the effectiveness of the Telegram application as a supportive tool, an online survey was conducted to the groups at the end of their semester. The groups were required to answer all questionnaires. The feedbacks of the groups were analysed to obtain their perception on the use of the Telegram application for supporting their learning process.

2. LITERATURE REVIEW

The emergence of internet-based SMTs in 1980s has a significant impact on students' life. Students, undergraduate and postgraduate, use various types of SMTs such as Facebook, Twitter and Instagram to interact and communicate with their classmates, friends and families. The trend of using SMTs among students is increasing that can be observed in many higher education institutions around the world (Bughin & Chui, 2010; Mrva-Montoya, 2012). To maximize student learning process, the use of the SMTs should not be limited to outside classrooms but rather to integrate into the classrooms.

Integrating the SMTs into classrooms becoming important part of teaching and learning process particularly in today technological and networked world whereby knowledge is openly accessible. Siemens (2004) proposed a new theory for teaching and learning process known as connectivism. This theory suggests that teaching and learning process uses technology and networked world to acquire knowledge. The process for acquiring knowledge occurs within the networked groups and communities and no longer bounded by the presence of lecturers or academic institutions. The roles of lecturers are basically to help the students to find the right networked communities of knowledge and to assist with connecting to the knowledge through SMTs.

Many lecturers have been exploring and using a number of SMTs to benefit them and their students. Prasad and Prasad (2012) reported that many top universities have been using several types of SMTs as an alternative space for their students. Besides, other universities around the world have been also using various SMTs. Al-Said (2015) reported on the use of Edmodo, a free social learning platform for students and educators, at Taibah University, Kingdom of Saudi Arabia. Thongmak (2013) reported a case study regarding factors that influencing students for adopting the Edmodo in Thailand.

The effectiveness of various SMTs for supporting teaching and learning process is the main topic for some researchers. Arnold and Paulus (2010) showed that the use of the SMTs can increase interaction between all those involved in the teaching and learning process. Besides, the use of the SMTs can increase understanding of course material. Brady, Holcomb and Smith (2010) reported on the use of Ning, non-commercial educational-based SMT, on distance learning at North Carolina State University. The result shows that majority of students agree that the Ning benefits in their courses.

Several publications focused on a popular and among widely used SMTs in the world, which is a Facebook, as an enhancement tool for teaching and learning process. Naidu (2003) reported that the Facebook can be used to support course management activities, engage and motivate students through interactivity and collaboration. Irwin et al. (2012) studied on the students' perceptions of using Facebook as an interactive learning resource at university. Their findings show that the Facebook has the potential to promote collaborative and

cooperative learning. Comparing between traditional and current technology, Roblyer et al. (2010) reported that students are more likely to use Facebook and similar technologies as compared to traditional technology such as email.

However, Lin et al., (2013) stated that the Facebook or other SMTs that used to support teaching and learning may distract students. This is because the primary design of the Facebook is as a social media networking tool. Nkhoma et al. (2015) studied on the Facebook as a tool for learning purposes. Their recent result shows that the use of Facebook has negative affects on grade point average. Therefore, suitable social media need to be selected such that the media provides less distraction to students. Ideally, social media with simple design, easy to use, free of advertisement is preferred.

In today's generation, one of the growing popularity SMT is a Telegram application. The application was developed by Pavel and Nikolai Durov at Berlin, Germany. Although the Telegram is developed as a social media, the advantages of the Telegram as compared to some SMTs are that it is a free application for a lifetime, free of advertising, unlimited size of media and easy to use. The Telegram application can be used not only to send/receive texts, images, audio and video but also documents in different number of formats such as word (docx), excel (xlsx) and portable document format (pdf). It should be noted that these types of documents are the main format that lecturers at universities used to prepare notes, tutorials and assignments for sharing with their students. Besides, the Telegram has the ability to create a discussion group or forum with a default maximum number of 200 students. The maximum number, however, can be upgraded to 5000 students.

It is well known that most students own smartphone rather than desktop/laptop computer. The Telegram, in turn, has both the smartphone and laptop versions. The laptop version can be also used for desktop computer. Communicating and interacting among students can be performed using smartphone or desktop or both since any information that has been send are automatically synchronized between the devices. The students might prefer to use smartphone while lecturers at universities prefer to use desktop since they keep their course materials in their desktop. Besides, the lecturers are required to interact with a great number of students whereby using desktop version provides a more convenient way. Such great advantages make the Telegram is one of the good tools for supporting teaching and learning process at universities.

3. METHODOLOGY

The objective of this study is to gather information on students' perceptions towards the used of Telegram as a supportive tool in their learning process. This study was conducted at Faculty of Electrical and Electronic Engineering, UiTMPP. A total of 66 students registered Electronic Circuit Analysis (ELE512) course volunteered and three lecturers participated in this study. These are full-time undergraduate students studying their Bachelor of Electrical and Electronic Engineering programme at UiTMPP. The study was conducted in Mac – September in 2015.

At the beginning of the semester, students and lecturers were asked to install the Telegram application in their smartphone. For students and lecturers who owned laptop, they can also install desktop version of the Telegram. The Telegram application has an advantage to synchronize any posted information between smartphones and desktop devices. Therefore,

any update information can be send or read in real-time using smartphone, desktop or both. To set up discussion groups, lecturers created several groups based on the ELE512 classes. Next, lecturers appointed and added student representative into their respective discussion group. Adding other students to join the discussion group is an easy task since the student representative or the lecturers could add or invite other students to join the group. Similarly, students who had already joined the group could add or invite other students to join the group. In this way, members of the discussion group were formed immediately.

During the semester, the students and lecturers were asked to use the Telegram to communicate and share information that related to the ELE512 course. Notes, assignments and short videos are shared among students and lecturers as simple as drag and drop with some added comments, descriptions or instructions. Figure 1 shows a sample of conversation in Telegram for one of the created group (e.g. Class C).

Figure 1: A sample of conversation in Telegram application.

At the end of the semester, the students were asked to complete an online survey on their perceptions using Telegram as a tool for enhancement during their learning process. The online survey consists of 10 questions developed and published using google form. Appendix A shows the design questionnaires. The questionnaires can be divided into three types which

are true-false, Likert scale agreement levels and open-ended. The first question is a true-false question. This question asking past experience of students for using Telegram is used as a tool for teaching and learning. Second until eight questions (Q2-Q8), asked the students to rate their level of agreements. These questions were based on 5-point Likert scale ranging from Strongly Disagree to Strongly Agree. Next, the last two questions (Q9 and Q10) are the open-ended questions. These open-ended questions asked the opinion of student on the benefits and drawbacks of using Telegram. Students responses were analysed to obtain their experience, level of agreement and opinion.

4. FINDINGS AND DISCUSSION

The first survey question is the student experience using Telegram application as an educational tool. Figure 2 shows the result of the survey. Simple summation and then percentage were used for calculation. It is found that 56% of the students have not used the Telegram tool for educational purpose in the past.
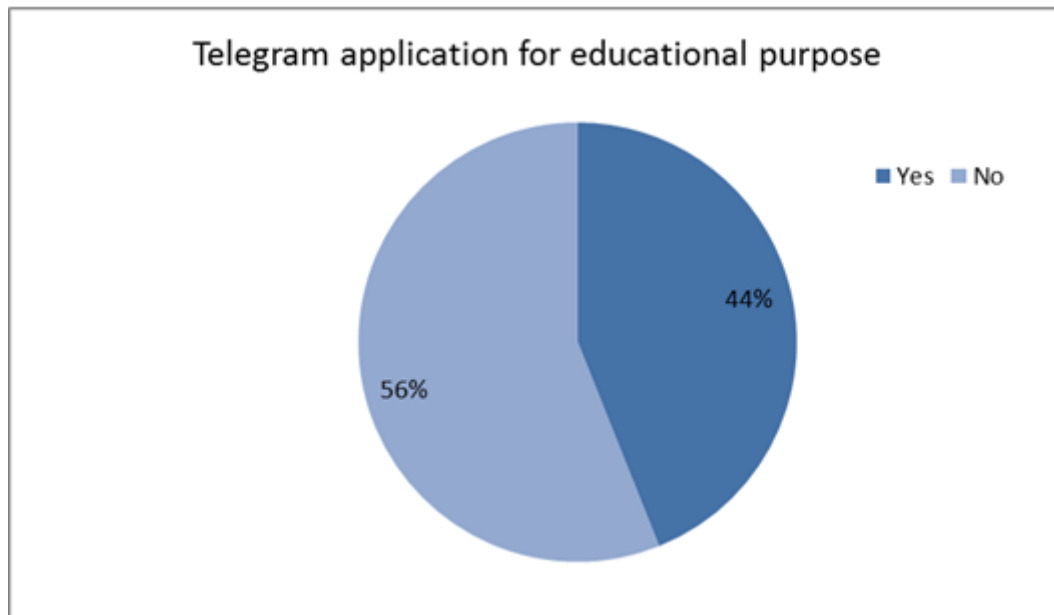

Figure 2: Student experience on Telegram as educational tool.

The second till eight survey questions (Q2 – Q8) are the agreement-level questions. The design questions are shown in Appendix A. The answers to these questions are either Strongly Disagree, Disagree, Moderate, Agree or Strongly Agree. Figure 3 shows the results for these agreement-level questions.
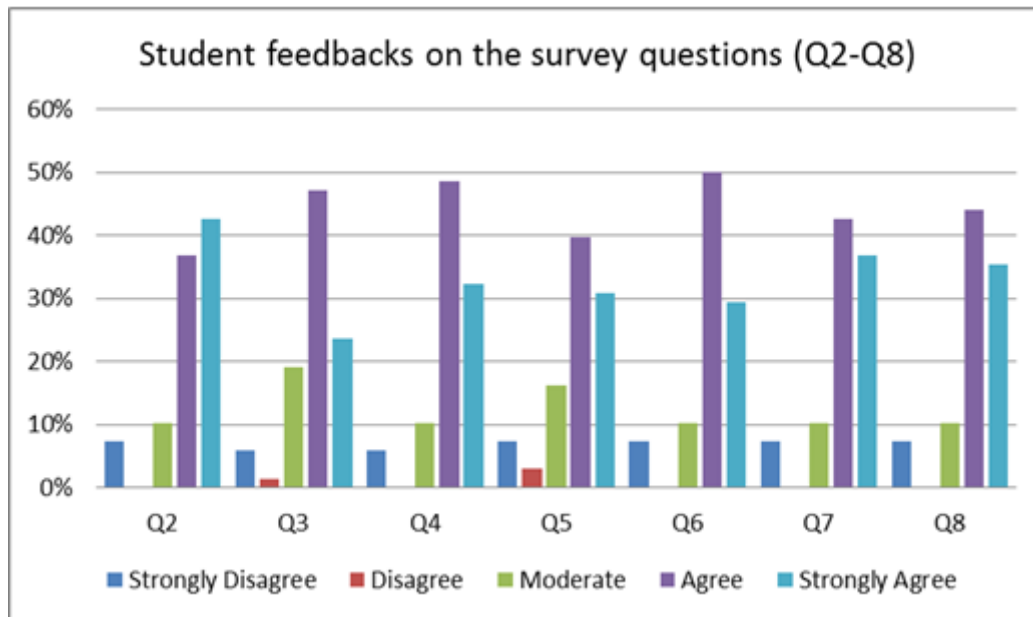
Figure 3: Student responses to survey questions (Q2 – Q8).

The results show most students agree with the capability of Telegram application and benefit their learning process. The students' feedbacks were 'Telegram made easy for sharing educational notes, videos and provides feedback' (82%), and 'Telegram has improved my learning process' (72%). For the contents of the course notes, it is found that most students agree that the qualities of notes posted by lecturers are sufficient (84%).

The results also show that most students agree using Telegram application can increase their interaction. 'Telegram allows me to interact with colleagues who I would not otherwise be able to communicate with in traditional learning process' (73%), and 'Telegram allows me to interact with lecturers more effectively' (82%). Most students agreed that the Telegram application should be continued for this course and extended to other courses. 'Telegram should be continued for this course in next semester' (82%), and 'Telegram should be used for other courses in next semester' (82%).

The last two surveys are the open-ended questions. The questions asked were:

Q9 - In your opinion, what are the main benefits of using Telegram for teaching and learning?

Q10 - In your opinion, what are the main drawbacks of using Telegram for teaching and learning?

The analysis on the Q9 shows that their response can be categorized into three common themes: Improve outside Class Learning, Easy to Share Notes and Enhance Communication between the lecturers and students. Some of the given responses were: "*We can communicate although not face to face*"; "*Lect can share file(notes) on the spot for student, the process to print the notes given become easier since telegram can be used in dekstop or laptop.*" and "*It makes me easy to keep updating with my course*". Figure 4 shows the result of analysis on Q9. It indicates that the main benefit of Telegram is an easy tool for sharing information.
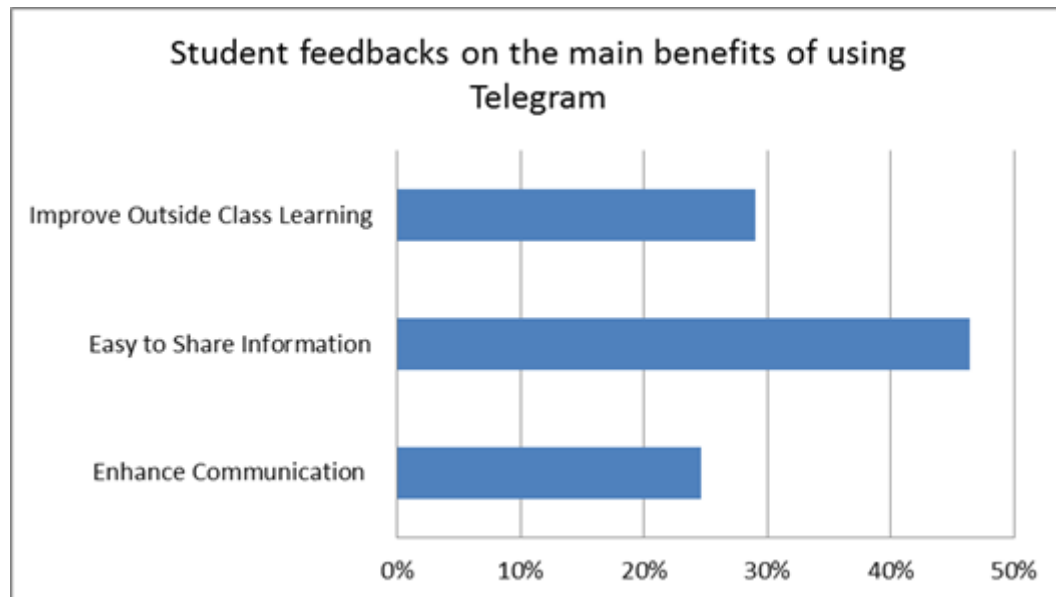
Figure 4: Student responses to a survey question Q9.

Next, the analysis on the Q10 shows that their response can be categorized into five common themes: Discussion Topic, Distraction, Internet Issues, Non-Telegram User and Reduced Face to Face Communication. Some of the given responses were: "*Cannot have a detail discussion for certain problem in this subject.*"; "*If no internet wifi, student cannot use or open this application.*" ; "*It need to internet data for open this application*" and "*Less direct communication between lecturer and students*". Figure 5 shows the result of analysis on Q10. It indicates that the main drawback of using Telegram is an internet issue. The common internet issue, feedback by the students, is on the free wifi coverage.
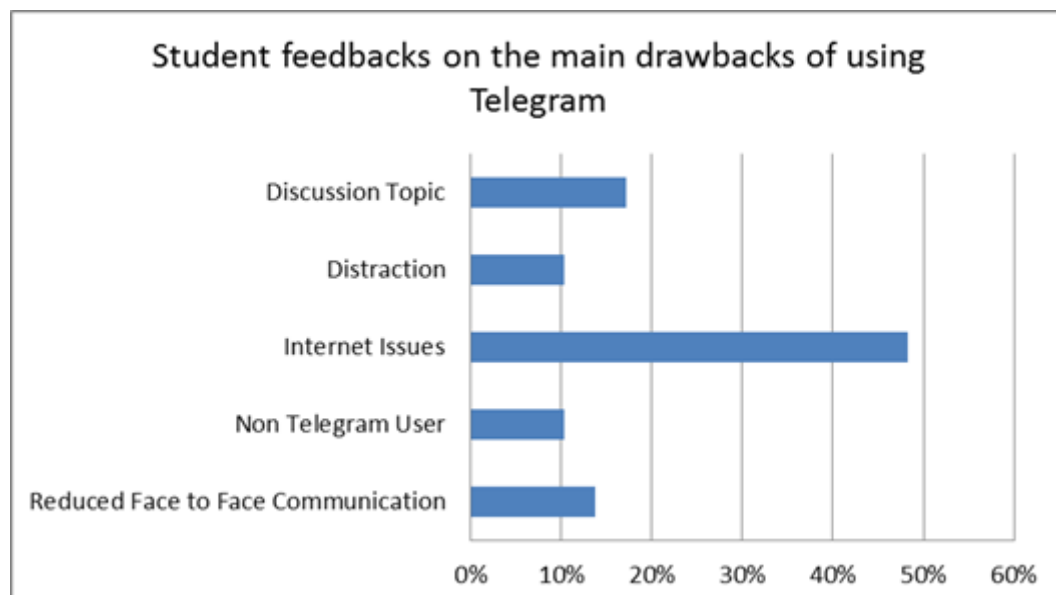

Figure 5: Student responses to a survey question Q10.

5. CONCLUSION

This paper presents the perception of students on the use of Telegram as a supportive tool for teaching and learning process. There were 66 students participating in this survey. The students were using Telegram as a tool for supporting their teaching and learning process for Electronic Circuit Analysis course during semester Mac – September in 2015. At the end of the semester, the students were required to answer 10 online survey questions. Most of the students participated in this study have no experience of using Telegram for educational purpose. The analysis results show that most of these students agree that the use of Telegram tool can support the learning process and increase the interaction between students and lecturers. Furthermore, the students agree that the use of Telegram tool should be extended to next semester as well as to other courses. The results on the open-ended questions showed that the Telegram is an easy tool for sharing information, teaching and learning process. The findings indicated the Telegram is a useful tool that can be used to support students' learning process.

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APPENDIX A

1. Have you used Telegram application for educational purpose in the past?

   a) Yes

   b) No

2. Telegram made easy for sharing educational notes, videos and provides feedback.

3. Telegram has improved my learning process.

4. The qualities of notes, assignments, etc. are sufficient.

5. Telegram allows me to interact with colleagues who I would not otherwise be able to communicate with in traditional learning process.

6. Telegram allows me to interact with lecturers more effectively.

7. Telegram should be continued for this course in next semester.

8. Telegram should be used for other courses in next semester.

9. In your opinion, what are the main benefits of using Telegram for teaching and learning?

10. In your opinion, what are the main drawbacks of using Telegram for teaching and learning?

   * Questions (2) to (8) are agreement-level questions ranging from Strongly Disagree to Strongly Agree. Questions (9) and (10) are open-ended questions.