INVESTIGATING STUDENTS' RECEPTIVENESS TOWARDS MOOC AND ITS RELATIONSHIP WITH ANXIETY AND MOTIVATION AMONG STUDENTS AT TAYLOR'S UNIVERSITY

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Abstract: *The purpose of this study was to investigate Students' Receptiveness towards MOOC (Massive Open Online Course) and its relationship with Anxiety and Motivation among Malaysian students. 172 students undertaking TITAS (Tamadun Islam dan Tamadun Asia) via MOOC participated in this study. An online questionnaire included 5 items of receptiveness towards MOOC, 38 items of anxiety and 8 items of students' motivation with 4-point Likert scale and Cronbach's alpha of 0.879, 0.942 and 0.894 respectively was administered in the final week of the semester. Descriptive statistic showed that students were receptive to learning TITAS via MOOC. One-way between subject's ANOVA showed that there was significant difference among students' receptiveness towards learning TITAS via MOOC with regards to their current semester status in University where the second semester students exhibited the highest receptiveness towards MOOC. Pearson's Correlation coefficient indicated that there was a high negative correlation between students' anxiety and motivation as well as receptiveness towards learning TITAS via MOOC, and students' motivation and receptiveness towards learning TITAS in MOOC were positively correlated. The research findings provided positive impact to lecturers who plan to convert from traditional teaching pedagogy to MOOC mode as Malaysian students were receptive and open to the idea of learning via MOOC. Besides, it also provided important information to University Administrator on the appropriate semester to offer modules in MOOC. Results from this study indicated that the timing to offer MOOC would be in second semester of their studies because students experienced lower anxiety and higher motivation, probably due to the fact that they have adapted to the university environment.*

Keywords: *Anxiety, Motivation, Receptiveness, Massive Open Online Course (MOOC)*
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Introduction

Infusing Information Communication and Technology (ICT) into education has become a trend in teaching and learning, particularly in higher education institutions (HEI) and universities worldwide. A quantum leap in the development in the area of telecommunication and digital infrastructure, electronic hardware and devices has improved the internet access and connectivity in many developing countries. The affordability and availability of Internet connectivity (B. El-darwiche et al., 2015), alongside the rapid drop in the cost of electronic devices has become a catalyst which boast HEI to invest in online learning. As a result, Massive Open Online Course, known as MOOC has become increasingly popular in delivering courses with huge enrolment. R. F. McCloud (2016) reports that individuals from low socioeconomic positions that have familiarity and skills in using the Internet have higher capacity to use it for educational programs.

MOOC has been increasingly gaining its popularity in many developing countries which has well developed digital infrastructure in area of metropolitan and universities (Balaii, 2013). There is a growing interest in MOOCs in many public and private universities, particularly in the modules that involve large number of student enrolment in each semester. This move is initiated to overcome challenges such as human capital and physical resources, particularly on time tabling and space issue of the universities, which appear to be the advantages of MOOCs. Malaysia has become the first country in the world to implement MOOCs for university students to enrol to the compulsory courses in its Public Universities in 2014 and develop a national policy on credit recognition for the MOOCs in 2016. Since then, many public and private universities in Malaysia have started the MOOC initiatives in general studies modules on a partial implementation basis. Many public universities have claimed to start the piloted MOOC initiatives for the general studies modules which include Hubungan Etnik (Ethnic Relation) and TITAS since 2014. However, the initiative to offer MOOC delivery to the two modules in the public universities are conducted in a blended learning structure – where about 30% of the course is conducted in MOOCs while the remaining percentage is conducted in traditional mode by the course instructors (Norazah Nordin, et. al., 2015).

As one of the top private university in Malaysia, Taylor's University does not fall behind and has begun to develop modules in MOOC since 2013. Taylor's University has developed and launched its first two pilot MOOCs, 'Entrepreneurship' and 'Achieve Success with Emotional Intelligence' in March 2013. 2016 has marked a breakthrough for Taylor's University to replace its two compulsory general studies modules, namely Hubungan Ethnik (Ethnic Relations) and Tamadun Islam dan Tamadun Asia, TITAS (Islamic Civilization and Asia Civilization) from traditional face to face mode of delivery to MOOC with 100% online mode of delivery. It is reported that Taylor's University is the first University in Malaysia to offer 100% MOOC mode of delivery to its two general studies modules. These two modules have large enrolment, each module has more than 1200 students for each semester and all Malaysia students need to undertake and pass these two modules before they receive their degree.

Research Objectives

A few studies have been done to examine the effectiveness and factor affecting students' acceptance of MOOC implementation as well as developing the pedagogical framework of MOOC at Taylor's University (Ayub, E., 2016, Ayub, E., 2017), however, students receptiveness towards learning via MOOC platform among Taylor's students has yet to be determined quantitatively.

The objective of this research is twofold, firstly to investigate students' receptiveness towards learning general studies modules via MOOC and identify the most suitable semester for students to undertake these general studies modules via MOOC during their learning period in the university, secondly to determine the relationship of receptiveness towards MOOC environment, anxiety and motivation among students at Taylor's University. Specifically, the investigation aims to answer the following research questions:

1). To what extent are Taylor's University students receptive to learning TITAS in MOOC environment?

2). Are there differences in receptiveness towards learning TITAS in MOOC among students at Taylor's University with regards to their current semester status of study?

3). Is there any correlation among students' perception of anxiety, motivation and receptiveness towards learning TITAS via MOOC at Taylor's University?

Theoretical Framework

This research adapts and adopts the most well-known model, the Technology Acceptance Model (TAM) to study the receptiveness towards MOOCs using anxiety and motivation as the factors which determine the receptiveness.

Figure 1 shows the original TAM which models users' acceptance and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, and defined as shown:

Perceived Usefulness (PU) – This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".

Perceived Ease-Of-Use (PEOU) – Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989).
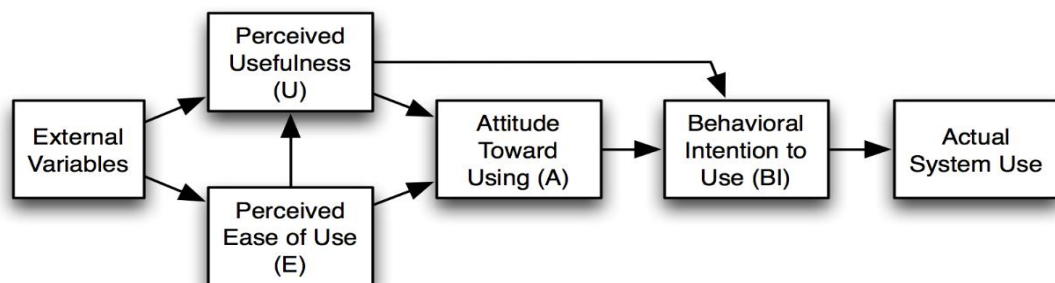

Figure 1: Original Model of TAM (Davis, et. al, 1989)

Figure 2: Shows the Research Model of This Study Adapted from the Original Research Model of TAM (Davis, Et. Al, 1989).
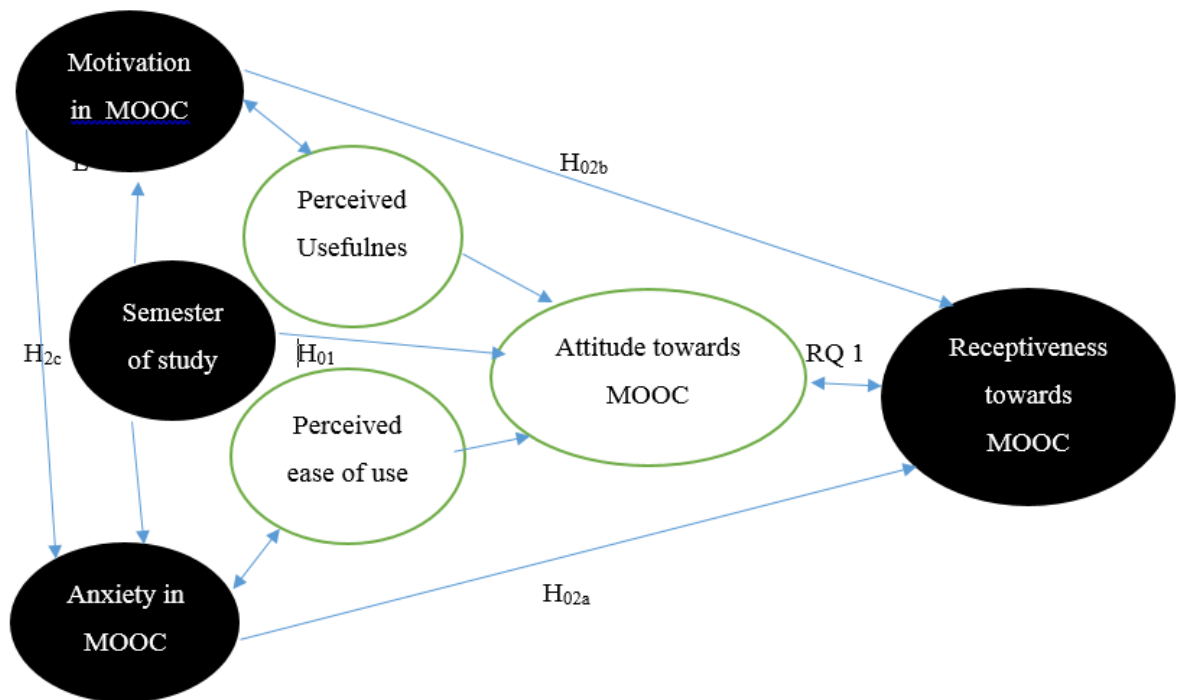

Figure 2: The Research Model Of Students' Receptiveness Towards MOOC

Definitions of Research Constructs
The constructs use in this research model are defined as shown:
Students' Receptiveness towards learning TITAS in MOOC
In this study, students' receptiveness refers to their positive attitude towards learning TITAS via MOOC mode. It refers to the degree that they are open to the new idea and the new pedagogy or approach of learning a course in the MOOC platform. The receptiveness construct included 5 items of students' receptiveness in taking TITAS in MOOC which is adapted from the Online English Writing Courses on students' receptiveness and learning perceptions (Karen Chung, 2016). It is also linked to their satisfaction in learning the module via MOOC mode. All the items are expressed in 4-point Likert scale with 1 representing strongly disagree, 2 representing Disagree, 3 representing Agree and 4 representing Strongly Agree to avoid fence sitting responses.

Students' Anxiety in MOOC
The anxiety of learning TITAS in MOOC platform is defined as an affective dimension of fear and worry in terms of misuse of information technology in MOOC platform. This may lead to miscommunication in their learning process to achieve the required learning outcome and excel in academic performance.

The anxiety constructs included attributes such as insecurity, anxiousness, nervousness, uncomfortableness, avoiding, apprehension, fear, intimidation, and confusion. It comprised of 38 items which covered domains such as anxiety in computer usage, Internet surfing, and information seeking on Taylor's MOODLE (TIMES) and Open Learning platform, as well as anxiety in learning on online and MOOC environment. All the items were expressed in 4-point

Likert scale with 1 representing strongly disagree, 2 representing Disagree, 3 representing Agree and 4 representing Strongly Agree to avoid fence sitting responses. The online questionnaire was developed to gather students' anxiety towards learning TITAS in MOOC, based on the anxiety constructs as defined in the literature (Norazah Nordin et. al. 2015; Beckers & Schmidt, 2001; Heinssen et al., 1987; Kay, 2008; Saadé & Kira, 2007).

Students' Motivation in MOOC

In this study, students' motivation in MOOC is considered as the important factor for students to achieve learning outcome in knowledge construction during online learning process. The receptiveness towards learning TITAS in MOOC perhaps related to students' motivation. The students' motivation was adapted from Johnson, Stewart, and Bachman (2013) in order to gather students' motivation orientation scale which consisted of 8-item survey where students responded using a 4-point Likert scale ranging from 1 (Not Motivated) to 4 (Very Motivated).

Research Hypotheses

Two research hypotheses are formulated based on the research objectives and the null hypotheses were tested to answer the research questions. The hypotheses and its respective subsidiary hypotheses are labelled in the theoretical framework adapted from TAM (Davis, 1989).

H_{01}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC among Taylor's University students with regards to their current semesters' status of study.

> H_{01a}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC between first semester and second semester students of Taylor's University.
> H_{01b}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC between first semester and third semester students of Taylor's University.
> H_{01c}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC between second semester and third semester students of Taylor's University.

H_{02}: There are no statistically significant correlation among students' anxiety, motivation and receptiveness towards learning TITAS in MOOC at Taylor's University.

> H_{02a}: There is no statistically significant correlation between students' anxiety and receptiveness towards learning TITAS in MOOC at Taylor's University.
> H_{02b}: There is no statistically significant correlation between students' motivation and receptiveness towards learning TITAS in MOOC at Taylor's University.
> H_{02c}: There is no statistically significant correlation between students' anxiety and motivation to learning TITAS in MOOC environment at Taylor's University.

The following sections present the past research carried out on MOOC in Malaysia, Asia and Western countries in the Literature Section, follows by the Methodology and Results. The result findings are discussed in the Discussion section. Conclusion and Suggestion for future research is presented in the last part of this paper.

Literature Review

There were many studies done on the receptiveness, students' motivation and anxiety on online learning. There was also some research done on the technology acceptance of MOOC in some

courses offered by Malaysian Public Universities. Karen Chung (2016) carried out a research on students' receptiveness and learning perception on online learning for English writing course. She found that students' in Taiwan University felt positively on their learning experience about taking online writing course in English as a Foreign Language (EFL) and favour the idea of taking another online writing course based on instructor competence, clarity and quality of learning material as well as timely feedback from instructors.

Peh, W.L., & Foo, S. (2001) carried out a research on Students' perceptions of online learning and found that the hard-working students of Singapore Temasek Polytechnic who frequently access the online learning platform appreciate the online learning course as compared to students who seldom access to the online learning platform. The main factor which contributed to a positive perception of online learning were familiarity and competency in using the online learning platform. Students who frequently access to the online courseware become familiar with the system and enabled them to navigate through the course materials with ease, and, in turn, enjoy a higher level of appreciation and satisfaction in using the online learning system. While those students who seldom use the system possessed anxiety and found it burdenful to use the system. Jones, M. Anita (2016) carried out a study of Satisfaction With Online Learning in Workplace Training which examined questions regarding managers' receptiveness to online learning in the workplace as expressed by satisfaction with online learning. Her results showed that four of five independent variables for age, lengths of service and position demonstrated a positive relationship to satisfaction with effectiveness of online learning in workplace training. As each of the four independent variables for age, lengths of service and position increased, receptiveness of online learning also increased. Rodriguez et al. (2008) conducted a survey study of 700 students regarding perceptions of online-learning quality which was analyzed with a structural equation model. It examined students with online-learning experience, comfort with technology, and motivation to learn technology skills which were related to satisfaction with online courses, that was related to perceived quality. The survey results showed that for students with hybrid-learning experience, comfort was related to motivation and perceived quality; motivation was related to satisfaction; and satisfaction was related to perceived quality. For students with no online-learning experiences, comfort was related to motivation to learn technology skills, but neither of these factors was related to perceived quality of online courses (Rodriguez et al., 2008).

Learners satisfaction and acceptance with learning in MOOC platform has been studied in Malaysia and world wide. Norazah Nordin, Helmi Norman and Mohamad Amin Embi.(2015) carried out a research on Technology acceptance of MOOCs in Malaysia and found that positive results were gained for the students in Malaysia. They accepted the use of MOOCs as a learning platform. Positive results were gained for the attitude factor where a large number of respondents perceived that MOOCs made learning more interesting and easier for them. Khalil (2013) carried out a research on "How satisfied are you with your MOOC" and found that a good proportion of students rated their satisfaction of interaction in MOOC learning platform as satisfied. However 35% of them were not satisfied of interaction in MOOCs due to lack of instructor interaction.

Bahaa G. Gameel (2017) carried out a study examined factors that influence learner satisfaction with MOOCs and found that learner-content interaction, learner-perceived usefulness, and teaching and learning aspects of the MOOC were among the factors that positively influencing learner satisfaction with the MOOC. By providing more engaging and interactive course content in MOOCs learning platform, learner-content interaction and overall satisfaction with the MOOC was increased. The study also suggested the importance for instructors to have

enough background about the MOOC learners to enure that the course meets their needs and relates what is learned to their existing knowledge and the real world.

Method

Study Design

The present study adopted the quantitative approach and correlational design to explore the relationship among the three variables, namely students' Receptiveness, Motivation and Anxiety towards MOOC.

Sample

This study recruited a convenient sample of students to investigate Students' Receptiveness towards MOOC (Massive Open Online Course) and its relationship with Anxiety and Motivation. 172 Taylor's undergraduate students from various schools and different current semester status who were enrolling to the Tamadun Islam and Tamadun Asia or TITAS (Islamic Civilization and Asia Civilization) participated in this survey. The sample comprised of 25 first semester students, 64 second semester students and 83 third semester students. The average age of first and second semester students was 20 years old and for those beyond third semester students was 21 years old.

Procedure

This study was carried out in the March 2018 Semester at Taylor's University, for a period of 14 weeks. The TITAS module was conducted via MOOC mode from March 2018 to July 2018 and only offered to Malaysian students who have completed 12 years of formal education and one to two years of Pre-tertiary education prior to their enrolment into the degree program at Taylor's University.

TITAS via MOOC at Taylor's University

The Tamadun Islam and Tamadun Asia or TITAS (Islamic Civilization and Asia Civilization) falls under the category of the general studies module and mandatory for all Malaysian students who are pursuing their bachelor's degree. TITAS is allocated in the U1 component under the *Mata Pelajaran Pengajian Umum, or known as MPU (*General studies modules). The Malaysian students must pass this module together with other general studies modules in order to graduate. This module recognizes the benefits of the ancient civilization, the advantages and disadvantages of the past and present to devise future strategy. Students will understand the background of the community, religious belief systems and cultural diversity in ancient civilizations after taking this module. While undertaking this module, students can better understand the differences in religion, culture and race between the Islamic, Malay, Chinese, Indian and Asian civilizations. Besides, this module enhances the students' sense of respect, morality and the human capital development as the citizens.

During the period of this study, lectures were conducted as a mean of direct communication between students and lecturers in the lecture hall in which the lecturer conveyed the basic information with regards to this module to the students. Students were required to attend this face to face briefing session; 2 hours in Week 1. The lecturer concern provided a thorough explanation of this module during this briefing session. Students were guided to register and use the Open Learning platform and Taylor's Moodle Platforms during this face-to-face session. Two times of YouTube Live sessions were conducted by the lecturer in 6th and 12th week of the semester to have live discussion with the students in case they have any issues to bring up regarding their assignments and projects. These live discussion sessions were recorded

and uploaded to the MOOC platform for students to review. Students were required to participate in online learning via MOOC platform in a weekly basis. They were responsible to complete the exercises, watched the videos and conducted self-study. The online learning via MOOC replaced the face-to-face lessons throughout the semester. The weekly activities (checkpoints) were treated as the attendance for this virtual classes. It was mandatory for students to complete 100% of attendance.

Data Collection

Online survey questionnaire was posted on the TITAS MOOC platform for students to response to the survey questions at the end of the semester. It was used to collect data aimed to investigate Students' Receptiveness towards MOOC and its relationship with Anxiety and Motivation among students at Taylor's University.

The online questionnaire included 5-item of receptiveness tool on learning TITAS in MOOC, 38-item of anxiety, and 8-item of students' motivation in MOOC environment. Reliability test was performed and reported that the Cronbach's alphas for the three variables, Students' Anxiety, Motivation and Receptiveness towards MOOC were 0.942, 0.894 and 0.879 respectively.

Data Analysis and Hypotheses Testing

The data collected from the online questionnaire which was tabulated in the google sheets were converted into CSV format. This data was analysed using the Statistical Package for the Social Sciences (IBM SPSS, version 20).

During Data analysis process, descriptive data on the student receptive level towards MOOC was computed and the null hypotheses and associated subsidiary null hypotheses were tested to either reject the null hypotheses in favour of alternative hypotheses or failed to reject the null hypotheses.

Results

RQ1: To What Extent are Taylor's University Students Receptive to Learning TITAS in MOOC Environment?

The MOOC Receptive Level was computed as the average of the 5 items of students' receptiveness in taking TITAS in MOOC which linked to their satisfaction in the MOOC environment. Each item was expressed in the 4-point Likert Scale, with 1 representing strongly disagree and 4 representing strongly agree. The average level of receptiveness for each category was computed as shown:

Interval = (4-1)/4 = 0.75
Strongly disagree = 1 to 1.75;
Disagree = 1.76 to 2.50;
Agree = 2.51 to 3.25;
Strongly agree = 3.26 to 4.00

Table 1 displays the Descriptive statistics of Students' Receptiveness towards learning TITAS in MOOC. The result suggested that 172 students had a mean receptive level of 2.90 (SD = 0.54) which lay at the higher end of the category of agreement and satisfaction with the MOOC Environment. Thus, to response to the first research question, RQ1, Taylor's University students were receptive to learning TITAS in MOOC environment.

Table 1: Descriptive Statistics of Students' Receptiveness Towards Learning TITAS in MOOC

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
MOOCReceptiveLevel	172	1.00	4.00	2.9047	.54093
Valid N (listwise)	172				

RQ2: Are There Difference in Receptiveness Towards Learning TITAS in MOOC Among Students at Taylor's University with Regards to Their Current Semester Status of Study?

To answer this research question, a hypothesis with the associated subsidiary hypotheses were formulated and the null hypotheses were tested.

Testing of H_{01}: There is No Statistically Significant Difference in Receptiveness Towards Learning TITAS in MOOC Among Taylor's University Students with Regards to Their Current Semesters' Status of Study

A one-way between subjects' ANOVA was conducted to compare the receptiveness towards learning TITAS in MOOC among 3 different groups of students according to their current semester status of study, first semester, second semester and third semester at Taylor's University. Table 2 displays the results obtained from One-way ANOVA and Post Hoc Comparison. There was a significant difference in receptiveness towards learning TITAS in MOOC with regards to their current semester status of studying at $p<.05$ level for the three groups of students [$F(2, 171) = 3.64$, $p < 0.05$].

Post Hoc comparison test indicated that the mean MOOC receptive-level for the group of second semester students (M=3.04, SD=0.46) was the highest among the three groups and significantly different than the other two groups at $p < 0.05$, i.e. group of first semester students (M=2.77, SD=0.47) and the group of third semester students (M=2.84, SD=0.59). However, the group of first semester students did not differ from group of students in third semester in terms of their receptiveness towards learning TITAS in MOOC.

Table 2: Results from One-Way ANOVA and Post Hoc Comparison Est for Receptiveness Towards Learning TITAS in MOOC with Regards to Their Current Semester Status of Study

Null Hypotheses, H_{01}	Results of one-way ANOVA (Post Hoc tests)	Alternative Hypotheses
H_{01}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC among Taylor's University students with regards to their current semesters status of study	$F(2, 171) = 3.64$, $p < 0.05$] Reject H_{02} in favor of H_1	H_1: There is a statistically significant difference in the means of receptiveness towards learning TITAS in MOOC exists between two or more groups of students of Taylor's University.

H_{01a}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC between first semester and second semester students of Taylor's University.	The means of receptiveness towards learning TITAS in MOOC for students in 1st semester (M=2.77, SD=0.47) 2nd semester (M=3.04, SD=0.46) $p < 0.05$. Reject H_{01a} in favor of H_{1a}	H_{1a}: There is a statistically significant difference in the means of receptiveness towards learning TITAS in MOOC between first and second semester students of Taylor's University
H_{01b}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC between first semester and third semester students of Taylor's University.	The means of receptiveness towards learning TITAS in MOOC for students in 1st semester (M=2.77, SD=0.47) 3rd semester (M=2.84, SD=0.59). $P > 0.05$ Fail to reject H_{01b}	
H_{01c}: There is no statistically significant difference in receptiveness towards learning TITAS in MOOC between second semester and third semester students of Taylor's University.	The means of receptiveness towards learning TITAS in MOOC for students in 2nd semester (M=3.04, SD=0.46) 3rd semester (M=2.84, SD=0.59). $P < 0.05$ Reject H_{01c} in favor of H_{1c}	H_{1c}: There is a statistically significant difference in the means in receptiveness towards learning TITAS in MOOC between second and third semester students of Taylor's University.

RQ3: Are There Any Correlation Among Students' Perception of Anxiety, Motivation and Receptiveness Towards Learning TITAS Via MOOC at Taylor's University?

To answer this research question, a hypothesis with the associated subsidiary hypotheses were formulated and the null hypotheses were tested.

Testing of H_{02}: There Are No Statistically Significant Correlation Among Students' Anxiety, Motivation and Receptiveness Towards Learning TITAS in MOOC at Taylor's University.

Pearson Product Moment Correlation Coefficient were computed among the 3 dependent variables, namely students' anxiety, motivation and receptiveness towards learning TITAS in MOOC. Table 3 displays the results of rejecting all the subsidiary null hypotheses. This had indicated that the second null hypothesis was rejected in favor of the alternative hypothesis, this indicated that all the three variables were correlated.

Table 3: Results of Testing H_{02} with Pearson's Correlation Coefficient

Null Hypotheses, H_0	Results (Pearson's correlation analysis)	Alternative Hypotheses
H_{02a}: There is no statistically significant correlation between students' anxiety and	R (172) = -0.411, p<0.05, two-tailed Reject H_{02a} in favour of H_{2a}	H_{2a}: There is a statistically significant, negatively correlation between students' anxiety and receptiveness

receptiveness towards learning TITAS in MOOC at Taylor's University.		towards learning TITAS in MOOC at Taylor's University.
H_{02b}: There is no statistically significant correlation between students' motivation and receptiveness towards learning TITAS in MOOC at Taylor's University.	R (172) = 0.470, p<0.05, two-tailed Reject H_{02b} in favour of H_{2b}	H_{2b}: There is a statistically significant, positively correlation between students' motivation and receptiveness towards learning TITAS in MOOC at Taylor's University.
H_{02c}: There is no statistically significant correlation between students' anxiety and motivation to learning TITAS in MOOC environment at Taylor's University.	R (172) = -0.225, p<0.05, two-tailed Reject H_{02c} in favour of H_{2c}	H_{2c}: There is a statistically significant, negatively correlation between students' anxiety and motivation to learning TITAS in MOOC at Taylor's University.

Discussion

The online questionnaire was developed to determine the students' receptiveness towards learning TITAS in MOOC on a 4 point Likert scale, from Strongly Disagree (1) to Strong Agree (4) to avoid fence sitter responses. In general, it was believed that students had more negative than positive attitude towards study TITAS in MOOC mode. This was due to the existence of different types of anxiety, and the relatively infancy stages of MOOC development at the university in which the students in this study were enrolled. The responses had indicated that students were relatively receptive to learning TITAS in MOOC. Descriptive statistics provided evidence that the students were receptive to learning TITAS in MOOC, with the means of receptiveness equal to 2.90, which lay at the higher end of the category of agreement and satisfaction with the MOOC environment.

This study also looked into the difference in receptive level among students' from various current semester status of study. Basically, this module was offered to students from various program or faculty without restriction to their current semester status of study. However, in this class of TITAS under the supervision of the same lecturer, students were constituted from 1st, 2nd and 3rd semester only. Thus the receptive level to learning TITAS in MOOC from these 3 groups of students according to their current semester status of study were compared. From the results of one-way between groups ANOVA, it showed that there existed a difference in receptiveness towards learning TITAS in MOOC between 2 or more groups of students. Results suggested that receptive level of students from second semester was significantly higher than those students from the first semester and third semester, with first semester students exhibited the lowest level of receptiveness and second semester students showed the highest level of receptiveness. Put together, these results suggest that first semester students are not ready to learn a module in MOOC due to their lack of adaptability in the university learning environment. An interesting result was obtained for third semester to exhibit lower receptiveness towards learning TITAS in MOOC as compared to the second semester students. It was predicted that the longer they were studying in the university, the higher was their receptiveness towards MOOC because they should have adapted to the university environment

and overcome the technological anxiety. The explanation that can offer to this unexpected result is due to the higher expectation of quality of subject content and MOOC learning environment from the context of experienced MOOC users. Most of the third semester students have experience in MOOC environment as they have taken another general studies module in MOOC. This is consistent with the research done by Kristina A. Artino (2011), whereby experienced online learners have more negative attitude with online course due to exposure and expectation to the quality of online course.

The strength of association among the 3 variables under study, namely, Students' Receptiveness towards learning TITAS in MOOC, Anxiety and Motivation at Taylor's University were determined using Pearson's Correlation coefficient in SPSS. The results from Pearson's suggested that all the subsidiary null hypotheses were rejected in favour of their respective alternative subsidiary hypotheses. It followed that the third null hypothesis was rejected in favour of its alternative hypothesis. It was clear that with lower level of anxiety of their computer skills, internet or cyber skills, MOOC platforms and online learning, students were more likely to appreciate or increase level of motivation in MOOC and hence exhibited higher receptive level to learning TITAS in MOOC. This was evidenced from the results which showed that students' perception of anxiety had inverse relationship with both motivation and receptiveness towards learning TITAS in MOOC while students' motivation and receptiveness towards learning TITAS in MOOC indicated positive relationship.

Conclusion and Suggestion for Future Study
This research aimed to investigate students' receptiveness towards MOOC and its relationship with anxiety and motivation among students at Taylor's University. The respondents constituted of one particular class of Taylor's University students who were undertaking the general studies module in MOOC platform. Research results indicated that the anxiety level of students learning TITAS in MOOC was relatively low while the Motivation level and receptive level were moderately high, which was evidenced by the significant inverse relationship between anxiety level versus motivation level and receptive level to learning TITAS in MOOC. Besides, the motivation level and receptive level also indicated a moderately positive relationship. The receptive level of students lay at the higher end of the category of agreement and satisfaction with the MOOC environment, which suggested that Taylor's students are receptive and in favour of learning this module in MOOC. However, taking a closer view of the receptive level for students from different current semester status had indicated that the second semester students exhibited the highest receptive level while fresh students (first semester) exhibited the lowest receptive level. This result suggests that the best timing to offer MOOCs is after the students have adapted to the university environment, which is after the first semester. However, results also indicated that third semester students exhibited lower receptiveness towards learning TITAS in MOOC as compared to second semester students. This result was unexpected, and it was mainly due to the high expectation of quality of subject content and MOOC learning environment from the context of experienced MOOC users. Most of the third semester students have experience in MOOC as they have taken another general studies module in MOOC at Taylor's University. Thus, it suggests that the lecturers need to keep improving the quality of MOOC contents as well as interaction with the students.

To improve the rigorous and robustness of this type of study, further research can be conducted to look into several issues such as the relationship between learners' loyalty, satisfaction and acceptance to MOOC, the appropriate current semester status for students to study modules offer in MOOC in a larger scale research.

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