THE EFFECT OF MOTIVATIONAL MESSAGES ON STUDENTS' PARTICIPATION IN ONLINE TUTORIAL: LESSON FROM UNIVERSITAS TERBUKA

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Abstract

This study aims to explain the effect of motivational messages on students' participation in online tutorial at Indonesia Open University. This study uses an online survey to collect data pertinent to students' supports and barriers to participate actively in the online tutorials. In relation to the theoretical basis, this study uses ARCS model created by John Keller (1999). The model consists of four main areas: Attention (A); Relevance (R); Confidence (C); and Satisfaction (S). The results of the study reveal that the motivational messages intervention was an effective tool to motivate students to participate in online tutorial. In regarding to ARCS design, the most frequent factor motivating for online learning was the relevance of learning materials to students' needs and the promptness of tutors' feedback. Meanwhile, the most factor impeding students' participation was lack of time due to heavy workloads.

1. INTRODUCTION

Online tutorial is one of learning support services provided by Universitas Terbuka Indonesia. Online tutorial is aimed to facilitate students' interaction with other tutors, other students, and learning materials. Online tutorial runs for eight weeks in every semester and consists of eight learning materials and three assignments. Furthermore, online tutorial also facilitates students to get Open Educational Resources (OER) from variant learning resources (Yuliana and Wardini, 2013).

However, the frequency of students' participation in online tutorial was approximately low. According to Yuliana and Wardini's research findings (2013), most of UT students had low access in online tutorilas, only less than 1.7 hours per week. The low rate of students' participation is becoming serious problem due to related to institutional and student performances. Several studies on online learning indicated that student persistence in online learning lower than face to face university (Carr 2000; Diaz and Cartnal 2006; Simpson 2003).

Student persistence in online tutorial remains a big challenge for Universitas Terbuka Indonesia. Prior empirical studies on student persistence have noted that Universitas Terbuka having a low rate of completion and a low level of achievement (Belawati, 1998; Kadarko, 2003; Ratnaningsih et.al., 2008). Currently, Universitas Terbuka has enrolled about 292,554 students, spread out in different parts of the country and some overseas locations. Over 90% of these students are working adults (Universitas Terbuka, 2017). Moreover, since its foundation in 1984, Universitas Terbuka has enrolled over 1.4 million students and has produced more than 700,000 alumni, working in various professional fields (Puspitasari & El Anshori, 2016). This data revealed that Universitas Terbuka has high enrolment, but low completion rates.

Therefore, one of attempt to increase students' participation is to elevate student's motivation to participating actively in online tutorial. Motivation strategies is needed to maintain student's motivation to learn and then will influence them to persist. Based on this consideration, this paper will explore barriers to actively participate in online tutorial and the effects of motivational intervention on student's participation in online learning.

2. LITERATURE REVIEW

2.1 Characteristic of Online Learner

Most distance learners are adult learners and they are perceived as "dynamic individual" whose characteristics often change in response to both educational and life experiences (Moore & Kearsley, 2012). Schutze (1986) pointed out four categories of adult learners: (1) those who enter or re-enter higher education to pursue mainstream studies leading to a full first degree or diploma; (2) those who re-enter to update their professional knowledge, or seek to acquire additional qualifications; (3) those without previous experience in higher education, who enrol for professional purposes, especially in courses of short duration; and (4) those with or without previous experiences in higher education, who enrol for courses with the explicit purpose of personal fulfilment.

Furthermore, the profiles of adult learners are mostly characterised by autonomy, persistence, independence, self-direction and flexibility (Garrison, 2003; Keegan, 1996). In terms of age characteristics, most distance learners were adults beyond the traditional age of undergraduate level or typically above 25 years of age, most of whom were employed and with household responsibilities (Granger & Benke, 1998; Moore & Kearsley, 2012). Thompson (1998) revealed that the majority of adult learners has the following characteristics: older than the typical undergraduate, probably female, more likely to be employed full time, married, self-motivated and self-disciplined, often with instrumental rather than developmental educational goals. Moreover, the major difference between distance learners and traditional classroom learners is motivation. In the majority of studies, distance learners were found to be highly motivated (Simonson, Smaldino, Albright, & Zvacek, 2000).

2.2 Student Persistence in Open University Contexts

There are few studies on student persistence conducted in the Open Universities as a single-mode institution that can be found in the peer-reviewed journals within the last 15 years. Most of the empirical studies on student persistence in distance education settings are conducted in dual-mode institutions in which carry out dual mode of learning: face-to-face learning and online or web-based learning.

However, 12 empirical studies of student persistence in the Open University contexts had been found in the peer-reviewed journals (Belawati 1998; Lee and Choi, 2012; Shin & Kim,1999; Vergidis and Panagiotakopoulos, 2002; Kemp, 2002; Tait, 2004; Castles, 2004; Pierrakeas et al, 2004; Fozdar, Kumar, and Kannan, 2006; Ibrahim, Rwegasira, & Taher, 2007; Perry et al. 2008; Choi et al. 2013). From these 12 studies, 38 factors had been identified as having statistically significant predictors of persistence or as the most influential factors according the authors of qualitative studies. The 38 factors were then refined and classified into nine categories: (a) student demography; (b) previous education; (c) skills; (d) psychological attributes; (e) learning services; (f) student support; (g) interaction; (h) work environment; (i) supporting environment. The nine categories were grouped into 3 main groups: (1) individual factors (a,b,c,d); (2) institutional factors (e,f,g); and (3) external factors (h,i).

Individual factors occupied 39% of all the factors considered (15 out of 38). Individual factors were the most frequently stated factors and encompassed four sub-factors: student demography (20%, 3 factors), previous education (20%, 3 factors), skills (33%, 5 factors), and psychological attributes (27%, 4 factors). Meanwhile, institutional factors occupied 37% of all the identified factors (14 out of 38). The institutional factors can be divided into three sub-factors: learning services (50%, 7 factors), student supports (43%, 6 factors), and interaction (7%, 1 factor). Finally, external factors contained 24% of the whole number of factors (9 out of 38). There were two sub-factors in this category: work environment (44%, 4 factors) and supporting environment (56%, 5 factors).

2.2 Keller'ARCS Model

The ARCS model was developed by John Keller to examine motivation primarily in face-toface learning environments. Keller's motivation design (1979, 1983) involves a traditional ISD model to do the following: 1) analyse the motivational problem (is the problem with the instruction or with the student's attention, relevance, confidence, satisfaction?); 2) design motivational strategies (write motivational

objectives, brainstorm strategies, select strategies); 3) implement strategies; and 4) evaluate consequences. However, Keller preferred to use the acronym ARCS (Attention, Relevance, Confidence, and Satisfaction) in order to make the model meaningful, consistent and easy to communicate.

The ARCS Model is a method for improving the motivational appeal of instructional materials. It has three distinct features. Firts, to establish the connection with motivational theory. Second, to enhance the appeal of instruction, sets of strategies are included. Third, the ARCS Model uses a systematic design process. According to Keller (1987), the ARCS Model is a problem-solving, empirical approach to applying motivation to instructional design. Motivation is not only the learner's responsibility but it is also the tutor or designer's responsibility.

The ARCS Model has three elements in each factor (Attention, Relevance, Confidence, Satisfaction) (Kelelr, 1987). First, *Attention* includes a) perceptual arousal: use of strategies to gain initial interest; b) inquiry arousal: use of problem solving, questioning, a sense of mystery and progressive disclosure to increase interest; c) variability: use of variety (lecture with visuals, group activity, or game) for a change of pace. Second, *Relevance*, which is the concept of linking the content to the learner's needs and wants, encompasses: a) goal orientation, which may mean outcome of learning such as obtaining a job, reward, etc., or may imply the means of learning; b) motive matching involves the learner's choices about strategies of learning, such as by group interaction, competition, or individual work; c) familiarity or connect to what one already believes and understands, such as realistic graphics, people's names, personal learning experiences. Third, *Confidence*, which provides a sense of self worth and success ability in challenging tasks, involeves strategies to: a) provide learning requirements in the form of clear objectives; b) provide success opportunities early and often enough to establish the learner's belief in his or her ability to achieve; c) provide personal control over the learning with choices of content, objectives and activities. This relates success to one's choices and effort. Fourth, Satisfaction includes strategies to: a) increase the natural consequences for use of the content, simulations, projects, real-life activity; b) provide positive consequences – both intrinsic and extrinsic rewards; c) assure equity of rewards so that they match achivements.

3. METHODOLOGY

This study employed an online survey. The quantitative data were collected by using a web-survey by sending online questionnaire to all undergraduate students of Universitas Terbuka. The total number of 6,095 students were invited by email to participate in the web-survey. Out of 6,095 invited students, only 108 respondents completed the questionnaire.

4. RESULTS

This section will explain two research questions: 1) what are the main obstacles to actively participate in online tutorial? 2) what is the effect of motivational messages to increase student participation in online tutorial?

4.1 Demography

This study used online survey and semi structured interview to explain the research questions. The data were collected from 109 students of four Faculties at Universitas Terbuka: Faculty of Law, Social and Political Sciences, Faculty of Economics and Business, Faculty of Education and Teacher Trainings, and Faculty of Natural Sciences. The respondents were registered at various regional centers, specifically, about 39 respondents were registered at the Regional center of Serang, 34 respondents were registered at the Regional Center of Jakarta, 14 respondents were registered at the Regional Center of Bogor, and the remain 22 respondents were registered at other Regional Centers.

Table 1. Number of Respondents Based On Regional Center

Regional Center	Number of Respondents	Percentage
Serang	39	36%
Jakarta	34	31%

Bogor	14	13%
Others	22	20%

Meanwhile, based on course programme, most of respondents studied at management Course Programme (17,6%), Law Course Programme (13,9%), Science of Communication (12%), English Translation Programme (8,3%), Science of Public Administration (8,3%), Sociology (7,4%), and other Programmes.

Tabel 2. Course Programme of Respondents

Course Programme	Frequency	%
Management	19	17,6
Law	15	13,9
Science of communication	13	12,0
Accounting	12	11,1
Public Administration	9	8,3
English for Translation	9	8,3
Sociology	8	7,4
Food Technology and Science	6	5,6
Nursery Course Programme	4	3,7
Biology	3	2,8
Business Administration	2	1,9
Mathematics	2	1,9
Indonesian Language	1	0,9
Science of Governance	1	0,9
Library Programme	1	0,9
Communication for Fishery Programme	1	0,9
Education for English Teaching	1	0,9
Statistics	1	0,9
	108	100

4.2 Media Proferences

Data of media preferences showed respondents' preferences regarding use of social media. The results of data indicated that most of respondents (51.8%) did not always aware to development of information technologies. Meanwhile, percentage of respondents who always aware to development of information technologies was sligthly lower than a group of respondents who did not.

When the respondents were asked "Do they alway change their mobile phones when a newest type is coming?", the results indicated that most of students (61, 6%) did not always change the mobile phone, 33,9% of respondents answered "maybe" and only 4.5% of respondents indicated to change their mobile phones.

In terms of use of social networking applications, the results indicated that most of respondents used WhatsAPP (93,8%) and Facebook (58,9%). Furthermore, most of respondents agreed that Social Networking App has an impact to motivate their learning at Universitas Terbuka. 17,9% of respondents were unsure about it's impact, and only 1,8% of respondents felt that Social Networking App did not impact on their learning motivation.

4.3 Readiness and Barriers to Participate in Online Tutorial

Preparation of students before participating in online tutorial is a necessary activity in order to succeed in online tutorials. The results of study highlighted that most of respondents prepared to particicpate online tutorial by reading modules and other relevant learning materials.

The respondents were also asked about longevity in participating online tutorials in every week. Most of all respondents (46,4%) indicated that they participated for an hour in every day. 25% of all respondents participated for 2 hours per day. Meanhile, only 16,1% of all respondents only participated at weekend.

In terms of barriers for actively participating in online tutorials, most of respondents said that lack of time due to heavy workload (42,9%) was the dominant barrier to actively participate. The second barrier was lack of prompt response from the tutors (37,5%). 27,7% of all respondents felt that learning materials were not up to date. 12,5% of all respondents said that they were not be able to access online tutorial website. 10,7% of all respondents did not participate online tutorials due to no internet access. Lastly, 8,9% of all respondents did not participate in online tutorials because they did not know the schedule of online tutorial.

However, the most frequent factor motivating to participate in online learning was the relevance of learning materials to students' needs (67%), the promptness of tutors' feedback (26%), and other factors (availability of time, internet access).

4.4 Motivational Messages by Using Keller's ARCS

The design of motivational messages was developed based on Keller's ARCS (Attention, Relevance, Confidence, and Satisfaction). The implementation of Keller's ARCS in UT's online tutorial can be seen in the following table.

Table 3. Design of Motivational Intervention

No	Activities	Motivational Intervention
1	Preparation of Online Tutorial	Attention, Confidence
2	Week/Session 1	Attention, Relevance, Confidence
3	Week/Session 2	Attention, Relevance, Confidence, Satisfaction
4	Week/Session 3	Attention, Relevance, Confidence, Satisfaction
5	Week/Session 4	Attention, Relevance, Confidence, Satisfaction
6	Week/Session 5	Attention, Relevance, Confidence, Satisfaction
7	Week/Session 6	Attention, Relevance, Confidence, Satisfaction
8	Week/Session 7	Attention, Relevance, Confidence, Satisfaction
9	Week/Session 8	Attention, Relevance, Confidence, Satisfaction
10	Pasca Online Tutorial	Satisfaction

This design of motivational intervention was applied to two online tutorial classes of Foundation of Social and Cultural Sciences. The monitoring of impact was undertaken based on students' log activities in online tutorial. The data of log activities can be seen on tables below:

Table 4. Data of Log Activities MKDU4109.01

No	Aspek	Jumlah	Persen

1	Number of students	150	100
2	Non-active Students	36	24
3	Access <100	61	40,7
4	Access >100	53	35,3
5	Total access	12654	
6	Tutor hits	183	

Table 5. Data of Log Activities MKDU4109.02

No	Aspek	Jumlah	Persen
1	Number of students	150	100
2	Non-active Students	35	23,3
3	Access <100	60	40
4	Access >100	55	36,7
5	Total access	1458	
6	Tutor's hits	1373	

Table 6. Data of Log Activities MKDU4109.02

No	Aspek	Jumlah	Persen
1	Number of students	150	100
2	Non-active Students	37	24,7
3	Access <100	64	42,7
4	Access >100	49	32,6
5	Total access	12873	
6	Tutor's hits	5735	

These data indicated that motivational intervention provide an impact to students' participation. From the total of students who participate in the pilot project, around 40% of all students who had hits frequencies above 100. However, further motivational intervention should be provided regularly in order to get a significant effect on students' participation.

In this case, motivational intervention was provided by mixed methods, namely email and WhatsApp due to unavability of valid mobile phones. This situation was assumed that Providing of motivational intervention through email is mostly not read by students. Second, student persistence in online tutorial is a longitudinal activities that we will not get a good impact in short periode. So, regular intervention should be provided in every semester in order to have a significant effect in the next years.

Furthermore, motivational intervention is not only a potent factor in determining students' participation but also must be supported by other factors, for instances: high quality of learning materials, speedy responses from tutors, and supports from families, friends, and employers.

According to several studies on student persistence in online learning (Tinto, 1975; Kember, 1995; Rivai, 2003; Simpson, 2003; Arifin, 2016), social and academic integrations have significant contribution to determine students' decision whether to persist or to drop out. However, systemic motivational intervention will help develop social and academic integration among students.

5. Conclusion

This study concludes that the advent of information technology will influence on student's learning style. Most of students at Universitas Terbuka are familiar with social networking applications and the most popular are WhatsApp and Facebook. Participation in online tutorial requires student's digital literation and students need to be able to maintain their learning

motivation. The attempt of motivational strategies is very important to increase student's partisipation and Keller's ARCS Model could be applied in Open University contexs.

Furthermore, the Open Universities, particularly Universitas Terbuka, need to develop a proactive contact center in which funtions not only to receive students' complaints but also interact actively by sending motivational messages to students aand in turn could increase students' participation in online learning.

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