

# “To Participate or Not?”: Identifying the Factors Affecting University Students’ Participation in an e-Forum

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## Abstract

Information and communication technologies (ICT), primarily computers and telecommunication networks, can be utilised as a means to cultivate thinking skills among students. Computer applications have been adapted or developed not only to facilitate critical thinking but also to help students to become reflective thinkers. In the Computer in Education (CIE) course, undergraduate students from the Faculty of Education, Universiti Kebangsaan Malaysia, were exposed to collaborative learning through sharing activities in an e-forum via the Weebly application. This study was conducted to investigate the factors that contributed to their participation in the e-forum, as well as the hindrances. This study involved 113 first year students who took the course. Data were generated using open-ended questions posed in one of the forum topics. The data were then analysed descriptively using thematic analysis. The overall findings indicate a numbers of contributing factors leading to students’ participation in the e-forum. Among these factors incentives are given, such as bonus marks for those who showed the highest level of engagement in the e-forum discussions. In addition, students were driven by their own individual needs, i.e. to access new ideas, expand their knowledge and share experiences. This paper also discusses factors that hindered students’ level of participation in the e-forum.

## Keywords

Online Learning Group, ICT, Computer Education, e-Forum, Undergraduate Students

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## 1. Introduction

In the process of becoming a developed country, Malaysia has a long-term vision, locally referred to as “Vision 2020”, which calls for sustained, productivity-driven growth.

This vision will be achievable only with a technologically literate, critically thinking workforce prepared to participate fully in the global economy of the twenty-first century (Ministry of Education, 2013). At the same time, Malaysia's National Philosophy of Education calls for "developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally, and physically balanced and harmonious" (Ministry of Education, 2013: p. 25) Therefore, to support the country's ICT master plan, and in line with the country's drive to fulfill Vision 2020, the education system has to be transformed.

The catalyst for this transformation will be ICT. The concept of integration of ICT into education will enable information gathering, management, manipulation, access, and communication in various forms (Ministry of Education, 2013). In the Malaysian context, The Ministry of Education (MOE) has formulated three main policies for ICT in education. The first policy is that of ICT for all students, meaning that ICT is used as an enabler to reduce the digital gap between schools. The second policy emphasises the role and function of ICT in education as a teaching and learning tool, as part of a subject, and as a subject in itself. In addition to using radio and television as a teaching and learning tool, this policy stresses the use of computers for accessing information, communication, and as a productivity tool. ICT as part of a subject refers to the use of software (e.g. AutoCAD and SCAD) in subjects such as "Invention" and "Engineering Drawing". ICT as a subject refers to the introduction of subjects such as "Information Technology" and "Computerisation". The third policy emphasises the use of ICT to increase the productivity, efficiency and effectiveness of the management system. In this case, ICT will be extensively used to automate and mechanise work processes such as the processing of official forms, timetable generation, management of information systems, lesson planning, financial management, and the maintenance of inventories (Ministry of Education, 2013).

In conjunction with the MOE's efforts, higher education institutions are also developing ICT policies. ICT has become a major factor in spurring the process of innovation in teaching and learning. As such, all efforts are concentrated on developing new media as tools in the service of richer curricula, and enhanced pedagogies. In this new millennium, there is an abundance of applications developed to fulfill the demands of educationists. With these applications available to be used in teaching and learning processes, almost all higher education institutions are working towards integrating e-learning approaches to enhance the learning of the students. E-learning, a method that evolved from distance education, has received special attention from public universities in implementing distance learning courses. E-learning is the most recent evolution of distance learning, and it creates, fosters, delivers, and facilitates learning, anytime and anywhere, with the use of interactive network technologies. The first electronic supplement to traditional instructor-led classroom training was computer-based training (CBT), delivered via CD-ROM to individual PCs or local-area networks (LANs). The rise of the web then led to web-based training (WBT), courseware developed specifically for delivery via the Internet or intranets. The ubiquitous "e" was later

applied, signaling a shift from the “islands” of learning going on at departmental or line-of-business level, to enterprise e-learning (Goi & Ng 2009; Choi, Kim, & Kim, 2007).

The rapid growth of web-based technologies and the high usage of the Internet have made teaching and learning via the Internet, or e-learning, more viable in recent years. Many universities and education-based industries have set up portals to offer an e-learning environment, either as a teaching aide to support conventional teaching approaches, or as a teaching medium for long-distance or off-campus programmes (Khalid et al., 2006). There are currently 20 public universities and university colleges (14 universities and six university colleges), 30 private universities and university colleges (11 universities, five international universities and 14 university colleges), and over 600 private colleges in Malaysia (Ministry of Education, 2015). With an increase in the demand for higher education, many institutions in Malaysia have focused on e-learning (Raja Hussain, 2004). Universities in Malaysia have responded actively to this challenge, guided by the Ministry of Education’s strategies to enhance the use of ICT in e-learning (Hassan, 2002; Raja Hussain, 2004).

E-learning tools and technologies have been widely used to support learner-centred and personalised learning. Usually these e-learning tools extend traditional learning paradigms into new dynamic learning models through computer and web technologies. Features provided in an e-learning system normally include hypermedia-based learning resource authoring, assessment submission and results management, online forums and live consultations, adaptive/personalized instruction, learning progress monitoring, and lecture recordings. In relation to this, it is also important that undergraduate students gain sufficient knowledge and are able to apply it innovatively and creatively in their teaching activities (Daud & Khalid, 2014). However, there is one important feature that might have been undervalued or overlooked: learning evidence management and the establishment of personal e-portfolios. Emerging, often powerful evidence from learners of the value of developing e-portfolios provides a strong rationale for reconsidering the role of e-portfolios in learning and teaching (Khalid et al., 2015; Krause, 2007; Dunlap & Lowerthal, 2011). E-learning systems can support and explore how e-portfolios can add value to personalised and reflective models of learning. Web 2.0 apps such as Weebly have the potential to revolutionise education and improve learning (Alexander, 2006; O’Reilly, 2005; Ministry of Education, 2007; Bower, Hedberg, & Kuswara, 2010).

#### **Using Weebly as a platform for the development of e-portfolios and e-forums**

Sutherland and Powell (2007) define e-portfolios specifically within an e-learning environment as “a purposeful aggregation of digital items, ideas, evidence, reflections, feedback, comments etc. which ‘presents’ a selected audience with evidence of a person’s learning and/or ability”. E-forums are part and parcel of e-portfolios, but the definitions might vary depending on the perspective from which a person is referring to the concept. An e-portfolio can be a product created by learners, a collection of learning evidence, such as digital artifacts, or personal reflections. It can also be a tool or system used to create this kind of product, with which learners collect, select, share and

present learning evidence in e-portfolio-related processes (Gao, Coldwell, & Goscinski, 2014). In this paper, we adopt both meanings of e-portfolios. E-forums are integrated into e-portfolios. In the National University of Malaysia's Faculty of Education, one of the subjects that is compulsory for all first year students is Computer in Education (CIE), coded as GE1155. This course aims to prepare undergraduates with knowledge and skills related to using computers for teaching and learning. This course (GE1155) also introduces twenty-first century skills, skills related to Web 2.0 apps, and reflective and critical thinking (Khalid, Daud, & Ahmad, 2014a; Faculty of Education, 2014). This study was conducted to investigate the factors that contribute to students' participation in e-forums, as well as any hindrances to participation.

## 2. Methodology

### *Research Participants*

A total of 113 students from the three programmes (Special Education [SE], Sports and Recreation [SR] and Teaching English as a Second Language [TESL]) took the course in Computer in Education. The platform for students to participate in an e-forum could be accessed through a Weebly website developed for this course (accessible at: <http://ge1155ukm.weebly.com/>). **Figure 1** shows a screenshot of an e-forum on Weebly. The students were divided into seven tutorial groups led by four lecturers, with one of them acting as a coordinator for this course.

### *Data collection and analysis*

For the purposes of the study, five open-ended questions were posed in one of the forum topics. The questions were: (a) How do you rate your participation in the e-forum? (b) Why do you feel that way? (c) What do you think your lecturers, colleagues and you should do to encourage more active participation in the forum? (d) What are the factors that motivated you to participate in the e-forum? and (e) What are the factors that hindered you from participating in the e-forum? All the answers given

**Figure 1.** Screenshot of e-forum on Weebly.

**Table 1.** Students' feelings about their participation in the e-forum.

Themes	Number of participants	%
Active	21	18.6
Satisfactory	71	62.8
Average	12	10.6
Not Active	9	7.96
Total	113	100

by the students were analysed using thematic analysis. For the purposes of this study and report, pseudonyms are used. The data was analysed to identify students' views on their participation in the e-forum, motivating and hindering factors, and what their expectations were in terms of enhancing their participation.

### 3. Results

#### Students' feelings about their participation in the e-forum

This category refers to students' feelings about their participation in the e-forum. As shown in **Table 1**, from the total of 113 students, 21 students (18.6%) perceived themselves as "active" participants, 71 students (62.8%) perceived their participation as "satisfactory", 12 students (10.6%) rated themselves as "average" and the smallest number, i.e. nine students (7.96%) rated themselves as "not active" participants.

A sample comment from a student perceiving him/herself as 'active':

"Thank God, my participation in Weebly is good. To be honest, I might say that my participation in Weebly is quite active, for I continuously update my Weebly from time to time. Hey, it is a fun experience indeed!" (Yasmin)

A sample comment from a student perceiving him/herself as "satisfactory":

"So far I think my participation in the forum is satisfactory. I participated because I want to make sure that I read all the discussions in the forum before the end of the semester." (Sarina)

A sample comment from a student perceiving him/herself as "average":

"Firstly, I find that my participation in any Weebly forum is quite average. However, I do keep myself up to date at times, by checking out the site for any new forum and notice posted by Dr Fariza." (Ariff)

A sample comment from a student perceiving him/herself as "non active":

"Students from Special Education and Sports and Recreation are so active compared to me \*salute\* I am not that active but I've tried my best to give responses, opinions on whatever is being posted in the forum." (Yati)

"Frankly speaking, I think I am the most inactive person in the forum because I have internet connectivity problems in my college. Every time there is a new task

posted in Weebly, I will receive the news two or more days later due to difficulties in finding internet connectivity. I hope this university pays attention to this particular problem as it is hard for students to do their assignments.” (Aliff)

### **Factors contributing to students’ participation in the e-forum**

This refers to factors that students felt had driven them to participate in the e-forum. The analysis shows the emergence of factors that led them to participate in the e-forum: a) The opportunity to enhance their knowledge and skills (cited by 41 students, 19.8%), b) Bonus mark incentives (cited by 36 students, 17.4%), c) Focusing on interesting topics (cited by 30 students, 14.5%), d) Self-awareness (cited by 22 students, 10.6%), e) Peer support (cited by 16 students, 7.2%), f) The chance to exchange ideas (cited by 15 students, 7.2%), g) Encouragement and monitoring from lecturers (cited by 14 students, 6.8%), h) Opportunities to know students from different programmes (cited by 12 students, 5.8%), i) Gaining support to complete the tasks (cited by ten students, 4.8%), j) Developing self-confidence (cited by eight students, 3.9%), and k) Good interface and layout design of the GE1155 website (cited by three students, 1.4%).

The most highly-cited factor was the fact that the e-forum provides an opportunity to enhance students’ knowledge and related skills. A sample comment on this topic is:

“In my opinion, one of the main reasons why I actively participate in the e-forum ... is because I get the opportunity to share and enhance my knowledge virtually, although we have not met each other face-to-face.” (Fatin)

An example of motivation from others:

“One factor that attracts me to participate in the forum is that I like to read other points of view ... sometimes ... reading creative posts from others motivates me to do the same ...” (Zaly)

In addition, students found that participating in the e-forum enabled them to gain new ideas about certain topics. An example of this can be seen here:

“Whenever I have a problem or get confused with the assignments, I will usually refer to our e-forum section because I know there are lots of discussions going on. So I can get some ideas or explanations on things that I am not sure of ...” (Aizat)

Self-awareness may be the most important driving factor as it comes from the students’ inner selves. From the analysis, it was found that some of the students were also motivated by their own self-awareness of the importance of taking part in the discussions. They did not want to be left behind or miss any important information related to the course.

The development of the GE1155 website was highly driven by the need to gather all the students from the three programmes in one forum platform. The decision seemed to meet students’ needs, as can be seen from many students reporting feeling good about having students from other programmes in the same virtual space, so they could connect with them. Examples of students’ responses are:

“The reason why I participate in the forum is because I view this medium as a better platform to share ideas and opinions as compared to i-Folio [the university learning management system], where we only know our course-mates in particular. In the Weebly forum, we get to know more about students from other programmes.” (Razak)

“The main factor that leads to my participation in this forum is that I can interact more with other students and know them better. Though sometimes I am busy with other assignments, I often look forward to this class.” (Ally)

“The interesting factor here is that we get to see a variety of ideas and answers from others that could widen and add to our knowledge, by just reading the comments here in Weebly. The students here are full of ideas and creative mindsets, thus the answers are full of surprises! However...erm, in my opinion, my attracting factor is that I got to see and view many ideas from my friends, not only in TESL, but also in Special Education and Sports and Recreation. I must say that they all have brilliant ideas and points of view that sometimes that idea would never have crossed my mind.” (Suzy)

Another external factor leading the students to engage in their online discussions was the support they received from peers. For example:

“I enjoyed reading other students from other programmes’ comments too. Apart from that, being in the forum has enabled me to communicate with my lecturer and also the course coordinator. It’s time effective as I do not have to see them in their office.” (Aiman)

The overall findings are summarised in **Table 2**.

**Table 2.** Factors contributing to students’ participation in the e-forum.

Themes	Number of participants	%
Enhancing knowledge and related skills	41	19.8
Bonus mark incentives	36	17.4
Focusing on interesting topics	30	14.5
Self awareness	22	10.6
Peer support	16	7.7
Chance to exchange ideas	15	7.2
Encouragement and monitoring from lecturer	14	6.8
Opportunities to know students from different programmes	12	5.8
Gaining support to complete the tasks	10	4.8
Developing self confidence	8	3.9
Good interface and layout design of the GE1155 website	3	1.4
Total	207	100

### **Factors hindering students from participating in the e-forum**

Students also shared their views on factors that they found to hinder them from fully participating in the e-forum. The most highly-mentioned factors are a) Unfamiliarity with the Weebly platform (cited by 37 students, 35.2%), b) Slow internet connection (cited by 20 students, 19.04%), c) Lack of time (cited by 14 students, 13.3%), d) Lack of confidence (cited by 12 students, 11.4%), e) Lack of mutual engagement (cited by eight students, 7.6%), f) Lack of interesting topics (cited by seven students, 6.6%), g) No notifications sent by Weebly (cited by four students, 3.8%) and h) Too many posts (cited by three students, 2.9%).

Unfamiliarity with certain applications may result in users having difficulties in using them optimally. It was revealed that this factor might hinder students from fully using their Weebly e-forum. This can be seen in one of the sample comments:

“... Weebly platform is really new to me and I’m not familiar with it ...” (Razif)

Aside from that, it seemed that Internet connection was still an important hindrance for students to get online, and this limited their level of participation in the e-forum. Not only that, students would get unmotivated as a result, as mentioned by these students:

“The most demotivating factor for me in my participation in the forum is problems accessing the e-forum. It happens because the internet connection is too slow.” (Zam)

“Maybe one of the reasons was because the Internet connection brings me down and I had no motivation to be actively involved in the forum.” (Nor)

Time is always a key to ensure strong engagement. However, there were students who found they were constrained by the time they had:

“I am too busy with another assignment from another course, I don’t have enough time to fully participate in the forum online ...” (Razali)

It is also important to note that some of the students showed a lack of confidence to share their thoughts in the e-forum. Thus, they tended to become silent readers. For example:

“It’s because I completely have no new ideas to initiate new discussions. I will be embarrassed if the topic that I have posted does not get any responses. As for discussions posted by our lecturers, I find them nice and I love participating in them. I prefer to be a silent reader.” (Nora)

Another factor cited by the students was the lack of interesting topics, just relying on subject matter. An example of a student’s response:

“I think a push factor...too focused on tasks from other courses...lacking interesting ideas...not so interesting topics.” (Andy)

An additional factor cited by the students was the fact that Weebly did not send any



notifications to their email addresses when new comments came in. The lack of this resulted in students having no idea of what was new on the e-forum. Some examples of students' responses:

"I will usually respond to the forum but a bit late. Frankly speaking, since Weebly forum has no notifications, that is why I often posted my responses late." (Azah)

"Sometime, I can just take a look at the forum, but due to no notifications, being too busy with assignments and so on, I tend to forget to have a look at what is new from my lecturer." (Ray)

One of the purposes of the e-forum is to encourage students to participate and involve themselves in the discussions. However, a few students were neglected. A sample student's response:

"Frankly speaking, I like to participate...but because of too many posts in the e-forum, I found it difficult to participate in all topics." (Aini)

The overall findings are summarised in **Table 3**.

#### 4. Discussion and Conclusion

This study focuses on the contributing factors that led students to participate in an on-line community, as well as the hindrances. In terms of contributing factors, the most often-cited answer was related to the fact that e-forum helped students to enhance their knowledge and related skills regarding computers in education. This finding indicates the success of the use of an e-forum to establish a learning community among the students. This is in line with what *Wenger (1998)* stresses: a learning community can help members to share ideas and learn from each other. This finding also indicates that learning from peers may become achievable when they are provided with a suitable platform for interaction. In this case, the e-forum provided by Weebly seemed to offer a space for interaction to occur and thus helped students to gain new information as well as ways of solving their problems and completing their assignments. However, in on-

**Table 3.** Factors hindering students from participating in the e-forum.

Themes	Number of participants	%
Unfamiliarity with Weebly	37	35.2
Slow Internet connection	20	19.04
Lack of time	14	13.3
Lack of confidence	12	11.4
Lack of mutual engagement	8	7.6
Lack of interesting topics	7	6.6
No notifications sent by Weebly	4	3.8
Too many posts	3	2.9
Total	105	100

line interaction, the most crucial aspect is peer support and feedback. Without reciprocal communication, the community will not become alive. From students' answers, it can be seen that peer support and encouragement from lecturers played an important role that contributed to their participation in their e-forum.

It is also worth noting here that students found that when the topics were focused, i.e. related to helping their learning and obtaining new skills related to the course, their interaction became more meaningful. Another important finding is how students saw bonus marks as an influencing factor for them to participate in their e-forum. However, as educators, we should be careful when offering this kind of incentive (i.e. bonus marks), as it should not become the most prominent factor that leads students to engage in an e-forum. Instead, they should be more intrinsically motivated to learn from others, not because of external drivers. From the findings, however, it is undeniable that students also demonstrated the existence of internal motivation that contributed to their participation. For example, students cited their self-awareness, in terms of being part of a learning community in which members make an effort to gain new information and to share the things that they know. They were also driven by their need to complete their tasks, which made them join the discussions that offered examples and options to achieve learning objectives.

In terms of factors that the students found obstructed them from fully participating in the e-forum, the most cited answer was they were unfamiliar with the use of Weebly. This was not something that we were expecting, as Weebly was considered as one of the blog providers that can be operated most easily, with its drag and drop features. This finding, however, made us reflect on the way the students were trained at the very beginning of our tutorial on how to create a website using Weebly. Although students were provided with numbers of videos explaining of the steps required to create the website, this finding perhaps indicates that this might not be enough for the students. Internet access can be a major factor leading to students' motivation to join the e-forum. As stated in the findings, 20 students noted the slow Internet connection as one of the factors hindering their participation. Time can also be a constraint. Two other factors mentioned by the students were lack of mutual engagement and confidence in themselves. Based on these findings, so as to improve e-forums in future, more effort should be made to spur students' interactions and simultaneously help students to overcome their low levels of self-confidence. As mentioned by [Guzdial and Turns \(2000\)](#), it is important to note that unfamiliarity with a discussion may discourage engagement. To improve the interaction aspect, it is suggested that the lecturer could have initiated the forum as well as helping with technology familiarisation and engagement with the forum ([Mason, 2011](#)).

Another hindering factor cited was the lack of notifications sent by Weebly every time new comments were posted. However, Weebly has since upgraded its service by providing notifications to users' email addresses. The hindering factor mentioned by the lowest number of students was the fact that there were so many posts on the e-forum. It was undeniable that the e-forum had no fewer than 151 students as mem-

bers from three different programmes, and all of them were encouraged to create new, relevant topics. This high number of topics listed was perhaps annoying for some of the students. However, by focusing their reading on certain topics will help them locate the necessary discussion areas in the e-forum. To improve this aspect, it is suggested that lecturers or moderators to increase their number of postings and comments so as to lead to learners perceiving the moderator as more enthusiastic and having more expertise and this will then increase their commitment to read more comments in the e-forum (Andresen, 2009).

The overall findings revealed that more positive factors were mentioned (207 answers) than hindering factors (105 answers). It can be concluded that, from the students' perspectives, participation in the e-forum was fun and enjoyable, and helped them to gain knowledge and skills related to computers in education. Participation in the e-forum also assisted them to complete their tasks more easily. However, it should be understood that the level of participation among students may vary. Some of the students were driven by their self-awareness about the benefits and importance of being an e-forum member. External factors may also play an important role. For example, in this study, students admitted that the bonus marks offered as an incentive for forum participation was one of the important factors that led them to participate in the e-forum. Therefore, it is important to note that to have a successful e-forum to which its members contribute requires careful planning, as well as reflection by lecturers or moderators. Internal motivation should not be the only factor to be relied on for participation. In contrast, external factors should be emphasised so as to help enhance the level of participation in any e-forum.

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