The Online Learning of Teacher Profession Education Program (*PPG*) for In-service English Teachers: Challenges and Accelerated Learning Factors

I.G.A. Lokita Purnamika Utami

English Language Education Department, Universitas Pendidikan Ganesha e-mail: lokitapurnamika@undiksha.ac.id

Abstract

The Indonesian government has currently implemented a hybrid learning program for inservice teachers who want to enroll in the Teacher Profession Education program (locally known as Pendidikan Profesi Guru). This Case study aimed to identify English teachers' perceptions on the challenges and accelerated-learning factors of online learning. 15 English teachers who were the participants of the said program hosted by Universitas Pendidikan Ganesha and 2 English mentors were the participants of the study. The informal interview was the main data collection technique which was transcribed verbatim and content analyzed. The participants of the study perceived 4 challenges of online learning, such as participants' lack of ICT skills, the incompleteness of the uploaded modules, instructors' unfamiliarity with the learning software, and the excessive assignments to be finished in limited time. There were 4 factors considered to accelerate teacher's learning: the mentor factor, the participant factor, the managerial factor, and the facility factor.

Keywords: Online Learning; In-Service English Teacher; Challenges; Accelerated Learning Factors; PPG

1. Introduction

English teachers around the world have been trying to integrate technology into their classes. They come with various tech tools to deepen students' English language learning. Despite how exciting it may sound, using technology in English classes is also considered challenging. English teachers need to determine which tech tools appropriate to help their class achieve the learning objectives and how to implement these tools so that they enhance students' English language acquisition. For this to happen, they need to be technologically literate and receptive to learning with technology integration.

With the germination of English learning sites, English teachers have a wider alternative for learning. They can choose what to learn, how to learn, and when to learn. Advanced technology allows teachers to do online professional learning which breaks down the time and spatial constraint (Trust, Krutka, & Carpenter, 2016). Online professional learning allows self-driven learning which avoids uniform acquisition of knowledge and skills. Furthermore, online professional learning has recently been a common practice especially since the opportunity for every teacher to attend a professional development program is not always available. For example, in the Indonesian context, this opportunity is given by the principal of the school to those teachers who need the most in regard to upgrading their career level (Utami & Prestridge, 2018). There is a tendency to give professional development opportunity through prioritizing teachers who in need of credit points because they are within the time to upgrade their career level.

Apart from the benefits of online learning, works of literature mention that face to face engagement is not less important. Teachers learning in an online setting is seen to be more effective if it is combined with face-to-face engagement (Hood, 2017). Teachers can individually select what they want to learn, gain knowledge, and discuss it with other teachers. This activity results in gaining more learning as feedback is received and knowledge is confirmed. Consequently, effective professional learning needs to be approached through the combination of two platforms of learning: online and face to face engagement. Recently it is popularly known by the terms blended or hybrid learning. Seeing the benefit of hybrid learning, the Indonesian government has recently launched a hybrid learning program for in-service teachers who participates in Teacher Profession Education

as a process of attaining professional teacher status. This program is locally known as PPG for an in-service teacher. Throughout this article, the term 'PPG' is used to refer to Teacher Profession Education implemented in Indonesia.

Although research on online learning has been done for decades, only a few directed on such programs for in-service teachers who have broader responsibilities. In fact, none has been conducted related to the implementation of the recently launched Hybrid Learning program during PPG for in-service teachers in Indonesia. Thus this study aimed to describe the challenges of the online learning implementation conducted within the hybrid learning of PPG for in-service teachers program. It also identified English teachers' perceptions of factors that leverage their learning.

Hybrid Learning System in PPG Dalam Jabatan Program In Indonesia

Government Regulation No. 74 of 2008 concerning teachers state that professional teacher certificates are obtained through a Teacher Profession Education programs, locally known as *Pendidikan Profesi Guru* or PPG, organized by universities that have accredited teacher training programs. In connection with the implementation of this PPG program, Law No. 14 of 2005 Article 23 concerning teachers and lecturers stipulates that the government is developing an education system for teachers who are boarding in educational personnel institutions or universities. What is meant by educational personnel institutions are higher education institutions assigned by the government to organize teacher procurement programs for early childhood education, basic education, secondary education, and to organize and develop education and non-education sciences?

Before a Teacher Profession Education program or PPG for an in-service teacher is implemented, PPG for pre-service teachers has also been held. What distinguishes PPG for in-service teachers from that for pre-service teachers is in its online learning system. The participants of PPG for in-service teachers are teachers with wider responsibilities such as teaching at school, facilitating students with their extracurricular activities, etc. Hence the online learning method is expected to enable teachers to attend the program without leaving their teaching obligations. This PPG for in-service teachers program has been prepared by the Ministry of Research, Technology, and Higher Education in 2017. The program is organized by universities determined by the said Ministry to answer the problem of low teacher competency.

The Directorate General of Learning and Student Affairs, in 2018 has developed a learning System of PPG for in-service teachers in the form of a Hybrid Learning System. The application of the Hybrid Learning System is expected to produce graduates (in-service teachers) who are competent and adaptable to the development of the industrial era 4.0 so as to produce good quality students.

In an effort to encourage the establishment of the Hybrid Learning System in all organizing colleges, technical guidance on using Hybrid Learning System was organized. PPG for in-service teachers began in June 2018 and was carried out in 1 (one) semester. This program is structured with the combination of online learning, workshops at university, and practical teaching. During the first 3 (three) months, the participants take part in deepening material through online learning which weighs 10 credits. Then it is followed by 5 (five) weeks attending workshops on teaching and education at the Teacher Training Universities which weighs 8 (eight) credits. Afterward, the participants are required to do practical teaching for 3 (three) weeks at some school which weighs 6 (six) credits (*Direktorat Jenderal Guru dan Tenaga Kependidikan*, 2018)

Online learning allows teachers to pursue both career and education at the same time. The Learning House & Aslanian Market Research (2016) states that 75% of participants of online learning have career motivation. They are more comfortable learning through online learning as the access time is very flexible in the sense that it can be adjusted to the participants' working schedule. The Ministry of Research, Technology, and Higher Education has chosen SPADA E-learning System that uses Brightspace software as a Massive Open Online Course (MOOCs). There are a thousand more learning modules uploaded in SPADA E-learning System. The modules include modules of pedagogic competence and modules of

deepening subject matter knowledge. Participants of PPG for in-service teachers can access the E-learning and download instructional modules by visiting http://ppgspada.brightspace.com. Each participant is required to register for obtaining a personal account. For the first step, they have to complete the profile so that they can communicate with the instructor. Participants may study the module independently and do the final assignments and summative tests provided in each basic competency. All assignments and tests are set with a start date and due date. This system ensures the participants to do all activities within a certain period of time. Although learning can be done independently, participants are expected to follow updates regarding the E-learning activities; thus, coordination with group mates is very important.

2. Methods

The study was approached qualitatively through a case study method. 15 English teachers who were the participants of PPG for the in-service teacher program at Universitas Pendidikan Ganesha in 2018 and 2 English online learning mentors were involved in the study. The main data were collected by using an informal interview which was conducted approximately within 30-60 minutes for each participant. An informal interview is unstructured as its questions are unplanned but more flexible and developed as the interview progresses (Creswell, 2012). The interviews were transcribed verbatim and content analyzed through the systematic classification process of coding and identifying themes or patterns. This involved condensation, coding, and categorizing the data (Erlingsson & Brysiewicz, 2017). Data triangulation was done by collecting data from several resources/ people. To preserve participants' confidentiality, their names are replaced by pseudonyms throughout this article.

3. Result and Discussion

In the implementation of this Hybrid learning program, participants were directed to learn in two modes, namely independent learning mode and guided learning mode. Independent learning was ensured through various assessments that had to be completed and collected within a certain predetermined period of time. Guided learning was done through the concept of elaboration and direction to understand the uploaded modules and other learning resources at a forum discussion.

The Hybrid learning system reduces the amount of seat time in a traditional face-to-face course and moves more than the course delivery online. Participants can learn through multimedia-enhanced content and channels for ongoing discussions. Thus, many of the participants reported that they enjoyed the discussion session and the various web-based contents during the online learning course. They agreed that the course stimulated their learning and refreshed their memory about the concept of English teaching or English content knowledge. However, during the implementation of online learning for in-service teachers there are several challenges that need to be highlighted.

The participants reported their lack ICT skills, as Jay mentioned "I was not aware there was a due date for each assignment, I knew it when I could not upload one assignment to the system" They also mentioned an issue with the uploaded material. Sarah mentioned that "There was an empty guiz, it only had instruction but there were no guestions". In addition to this, Susan, one of the mentors involved in the study said that "I need to learn about the software, and it was difficult because I could not log in the class before the date of my class schedule, thus I had to learn the software at the same time when I had to teach" What Susan reported was re-emphasized by Karen, another English mentor "we were involved in a technical guidance workshop, but it was rather ineffective since not all mentors could attend and it was conducted too briefly, so the knowledge transfer was limited" In addition to these challenges, some participants also highlighted the excessive assignments to be finished. Johnny perceived that "there were many assignments and all to be finished in a short time. We should stay up late to do all the required assignment, otherwise, we could not submit them in time" The content analysis on the informal interviews done to the participants of the study, 4 challenges of the online learning implementation were identified. These challenges were the participants' lack of ICT skills, the incompleteness of the uploaded modules,

instructors' unfamiliarity with the learning software, and the excessive assignments to be finished in limited time.

Furthermore, the study also showed some factors which may affect teachers' learning during their online learning involvement. Karen stated that "Some mentors were very active and motivating, this affects my enthusiasm for learning" Jackie added that "there are times when we had to do extra effort to get clarification on a certain concept, but I think not everybody had similar enthusiasm, some were more as an observer" Karen, one of the English mentors, also mentioned managerial issue "it was difficult to get help from the program organizer, when we asked about something the IT administrator would provide help limited to IT issue not content-related issue" Another issue related to the facility mentioned by Kristine, "I lived in a suburban area with a poor internet connection, so every time I needed to download material, I had to go to the nearest city and worked there for 4-5 hours. This was so unfortunate since I could not join the discussion in the forum as often as I wanted to" From the synthesis of all participants' interviews, the study found that there were 4 fundamental things that may support effective online learning. These include the mentor factor, the participant factor, the managerial factor, and the facility factor

To understand the findings meaningfully, a discussion on each of the findings is provided. Thus, the following section provides a discussion on each of the previously mentioned findings.

3.1 Challenges of the Online Learning

Despite their positive attitude toward online learning program, the participants of the study generally mentioned 4 challenges of its implementation. These challenges include the participants' lack of ICT skills, the incompleteness of the uploaded modules, instructors' unfamiliarity with the learning software and the excessive assignments to be finished in limited time

a. Participants' lack of ICT skills

Online learning requires adaptability to new technologies. When participants have limited capabilities compared to their savvy-tech counterparts, the mentor should be able to give them assistance. Some participants admitted that they did not have adequate IT skills. Some of them had simple computer operating capabilities which was insufficient for enrolling online learning effectively. These participants required mentor assistance in a technical matter most of the time. For example, they reported that at the beginning of the course, they could not locate where the module was, they did not notice the start date and due date of each assignment, they had some difficulties in submitting their tasks and joining in an online discussion. To have technical assistance, they contacted their mentor through a social media 'WhatsApp' which was largely used in the local context. This repeated technical problem was demotivating which caused participants' learning participation to decreased. In relation to this, Vonderwell & Zachariah (2005) mention that students' technology skills influence the level of student participation and their reflective focus in the course. The study found that the participants' lack of ICT skills was one of the challenges of online learning implementation.

b. The incompleteness of the uploaded modules

For online learning, modules as the learning source have a very important role as students are directed by the module to achieve the expected learning objective. The modules of this PPG for in-service teacher programs were uploaded to the Brightspace system to support the online learning sessions. Participants' self-access facility to the modules allowed independent learning in which participants could select which model to learn to help them accomplish the required assignments.

There were two types of modules prepared for the participants: pedagogic module and subject matter-related modules. The pedagogic module was the same module intended for all participants across different disciplines. The subject matter related modules were those for a specific group of participants with the same discipline. For English teachers participants the second type modules consist of English material topics such as Module 1: English for

entertainment (Personal Letters, Announcements, Analytical Exposition Text, and Hortatory Exposition), Module2: English for Social communication (Descriptive texts, Recount texts, Labels, and Notices.), Module 3: English for Entertainment (Folktale, Fable, Biography and Spoof texts), Module 4: English for the Media (News Item, Captions, Advertisements, and Reviews), Module 5: English for Academic Interaction (Explanation text, Discussion, Graphic organizers (tables, graphs, and charts), and Infographics.), and Module 6: English for Workplace (Reports text, Procedure text, Application letters, Formal invitations).

The problem with the uploaded modules was on the incompleteness of assignments sections uploaded in the system. For example, there was a case when an instruction of a quiz was not followed by the quiz questions. Participants mentioned that this became a problem as not all mentors were immediately modified the incomplete assignments. When this happened participants should contact them, through personal communication through Whatsapp, and explained the case. This information was then followed by the mentors developing assignments to suit the instruction that appeared in the systems. This action required extra time and forced participants to finish the assignments within the reduced time. Such circumstance requires participants' initiatives to report and the mentor's readiness to take action. Besides, it also requires the mentor's flexibility of time as participants may ask for assistance whenever a problem occurred.

c. The instructors' unfamiliarity with the learning software

At the beginning of the program of PPG for in-service teachers by using the Hybrid learning model, the Indonesian government-administered technical guidance to some selected mentors. These mentors were responsible to disseminate the guidance to appointed university mentors. This top-down approach of training followed a cascade model in which the first cohort of trainers are trained for specific skills or knowledge, once they are qualified they become the trainers for the second cohort (Jacobs, 2002)

The technical guidance aimed to transfer the knowledge and skills of online teaching by using Brightspace software. However, some problems were found during the implementation. The technical guidance following a cascade model was conducted briefly in two days, and not all mentors had equal high-tech skills. Besides, some mentors were not able to attend the training fully. Some dilution of information also seemed to be an issue. Elder (1996) mentions that dilution of information from level to level until it reaches the final target group is one of the problems of Cascade model training. Not all required knowledge to facilitate online learning was transferred by the first cohort of mentors to the second cohort of mentors at university. In this regard, the second cohort could not perform effectively as an online learning mentor.

d. The excessive assignments to be finished in a limited time.

Many of participants perceived that the online learning required them to do excessive assignments to be finished in a limited time. For example in the topic of English for entertainment, there are 4 units to be discussed: Personal Letters, Announcements, Analytical Exposition, and Hortatory Exposition. Each unit required participants to accomplish some assignments, to participate in a forum discussion, to complete some guizzes and a formative test. Participants reported that they were overwhelmed with the excessive assignments they had to finish. Some of the participants reported that they became ill since they mostly stayed up late for the whole 2 months of online learning courses. In addition to the participants' daily routine as teachers which also demanded their attention and energy, in the evening they had to do the online course assignments. The mentors observed that only a few participants could keep up with the required tasks, some of them personally contacted the mentor to be given extra time to finish their assignments as they were having multi responsibilities or illness. Besides, the poor internet connection was also an issue. For participants who lived in an isolated area, they could not participate very actively. They focused on accomplishing and submitting the required assignments and left out the forum discussion entirely.

3.2 Accelerated learning factors needed in online learning implementation

Research has investigated the effectiveness of online learning for more than a decade. Issues on the effectiveness of distance education and face to face education has become a debate. Schachar & Neumann (2003) investigated the differences between the academic performances of students in online learning or distance education courses relative to those enrolled in traditional settings, as demonstrated by their final course grades/scores within the 1990-2002 period. Their meta-analysis shows a strong positive trend indicating that online learning is an effective form of instruction. This analysis demonstrates that students engaged in online learning academically outperform their face to face counterparts. This study is different from the result by Neuhauser (2002) who compared two sections of the same course: the online section and the face to face section. These sections were taught by the same instructors. The analysis shows that there are no significant differences in test scores, assignments, participation grades, and final grades, although the online group's averages were slightly higher. Similar to Neuhauser (2002), U.S. Department of Education (2010) also reported that online learning using advanced technologies was not significantly different from regular classroom learning in terms of effectiveness. There seems to be still questioned about the effectiveness of online learning. Thus, it is important to discuss what might make online learning successful.

a. The mentor factor: Enthusiastic mentor triggers participants' enthusias m

The participants mentioned that several mentors demonstrated high enthusiasm and provided support which increased their own learning motivation. Literature mentions that a mentor needs to demonstrate professional enthusiasm or their professional excitement to facilitate the online learning process. As mentioned by Utami, Saukah, Cahyono, & Rachmajanti (2017) professional enthusiasm is a very important affective factor of teachers' professionalism. In fact, teachers' enthusiasm is an indicator of teachers' genuine involvement in a professional effort (Utami, 2017).

In the context of this online learning program, the mentor's enthusiasm inspired the participants to be actively involved. The enthusiasm was identified through the creativity of directing the discussion, the willingness to spend time for assisting, providing feedback, and facilitating the participants. For example, the mentor used the announcement tool to motivate participants to finish their tasks, to be actively involved in the discussion, or to post that a new discussion issue has been uploaded in the forum.

b. The participant factor: active participants versus passive participants

The participants observed that there were two kinds of online learning participants, the ones who were active in the forum discussion, and the one who were passive. The second type was those who only read and obtained information but stayed uninvolved in the discussion. Literatures have mentioned that not all online learners are willing to contribute to the discussion. (Trust, 2017) in his study on a math subject-based community online learning, observed not all teachers are actively involved in knowledge sharing activities. They were identified with the term 'contemplator', as they only read and assess the shared knowledge in the online community. This type of online learners are also mentioned with the term 'lurkers' (Hur & Brush, 2009) who are passive engagers seeking content for self-fulfilling professional needs. While the active participants termed as 'contributor'. It is an individual who replies to requests for action or shares best practices, links, resources, and other relevant knowledge with the community (Trust, 2017).

It is a common knowledge that learners who want to pursue knowledge and put serious effort into the learning process feel the benefit of their learning much more than the ones who don't. The first type of learners are willing to ask in order to pursue information to solve problems, while those of the second type are inclined to wait for others (mentor or other students) to solve their problems. Omar, Hassan, & Atan (2012) discover that "...learners' attitude pertaining to the online learning environment is influential to students' engagement in e-mentoring. Learners who are able to control their own learning and utilized various assisted functions in online learning engage more to their mentor" (p. 473). In other

words, the participants of the online learning program who are active to pursue knowledge have a better engagement with the mentor.

c. The managerial factor: the importance of assistance

Another factor that is not less important is managerial factors. This is the core of online learning as everything should be managed and put in place so that the program works. In relation to establishing participants' commitment in online learning Zainuddin, Kamaluddin, & Hassan (2012) found that some managerial aspects may help such as establishing a timetable or schedule, regular contact with learning facilitators, and clear learning objectives.

During the online learning of PPG for the in-service teacher program, one predetermined schedule was created. This schedule was applied by all teacher training universities which hosted the programs all over Indonesia. However, the two mentors involved in the study observed that the reachable assistance was only related to IT issues, when the mentor had problems with content-related material uploaded in the system, there was little to no assistance on this matter. The mentors perceived that managerial factor is affecting the quality of online learning.

d. The facility factor: The internet connection and teaching materials

Online learning is depended on internet connection. Thus, the internet connection becomes one of the most determining factors of effective online learning. Unfortunately, not all participants were in the area where stable internet connection was available. Those participants could not engage as actively as those who had access to a good internet connection. Those participants tried to go to the nearest city with a better internet connection and downloaded modules and assignments instruction and submitted before the determined time. However, they could not participate fully in the discussion forum which normally took place in the evening when both mentors and participants were having the more flexible time and freed from the daily routines. Cashion & Palmieri (2002) has mentioned that the greatest challenges to a high-quality online learning experience for students are access to the internet. This obstacle can include bandwidth, fast and affordable internet access, speed of software, and access to up-to-date equipment.

Besides internet connection, good teaching material is also a key feature of an effective online learning program. Online learning programs should provide high-quality design materials and a range of available navigational choices for participants. The problem with uploaded modules regarding its incompleteness became an issue during the online learning implementation. Participants have reported that they had to contact the mentor from time to time to get clarification on the materials.

4. Conclusion

The study identified 4 challenges of the online learning of Teacher Profession Education, PPG for in-service teacher program, conducted in Indonesia. The challenges range from the participants' ICT skill, the instructors' knowledge of using the software, the quality of the uploaded material up to the excessive number of assignments. Besides, the study also identified 4 factors that may leverage teachers' learning factors. These are the mentor factor, the participant factor, the managerial factor, and the facility factor. This implicates a further improvement in the implementation of the online program of PPG for the in-service teacher is required. The study also showed that the two days of technical guided training through the Cascade model done prior to the program was not sufficient to support mentors' understanding of the whole tools of the software. Based on this identification, the program should be conducted by considering both participants and mentor readiness on the software chosen as the medium of instruction. Future research may be directed to evaluate the effectiveness of the program to enhance teachers' knowledge.

References

- Cashion, J., & Palmieri, P. (2002). The secret is the teacher': The learner's view of online learning. NCVER, Adelaide.
- Creswell, J. W. (2012). Educational research: Planning, Conducting and Evaluating Quantitave and Qualitative Research. Boston: Pearson Education, Inc.
- Direktorat Jenderal Guru dan Tenaga Kependidikan. (2018). Pendidikan Profesi Guru (PPG)
 Dalam Jabatan Tahun 2018. Retrieved from https://drive.google.com/file/d/1KPD492LDt4thXU_xc8OUgPVTjx3W50jt/view
- Elder, H. T. (1996). The cascade model of training: its place in the Pacific. Pacific Curriculum Network, 5(1), 13–15. Retrieved from http://directions.usp.ac.fj/collect/direct/index/assoc/D1064942.dir/doc.pdf
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. African Journal of Emergency Medicine, 7(3), 93–99. https://doi.org/10.1016/j.afjem.2017.08.001
- Hood, N. (2017). Conceptualising online knowledge sharing: what teachers' perceptions can tell us. Technology, Pedagogy and Education, 1–13. https://doi.org/10.1080/1475939X.2017.1348980
- Hur, J. ., & Brush, T. A. (2009). Teacher Participation in Online Communities: Why Do Teachers Want to Participate in Self-generate ... Journal of Research on Technology in Education, 41(3), 279–303. https://doi.org/10.1080/15391523.2009.10782532
- Jacobs, R. L. (2002). Institutionalizing organizational change through cascade training. Journal of European Industrial Training, 26(2/3/4), 177–182.
- Neuhauser, C. (2002). Learning Style and Effectiveness of Online and Face to Face Instruction,. The American Journal of Dis Tance Education, 16(2).
- Omar, N. D., Hassan, H., & Atan, H. (2012). Student Engagement in Online Learning: Learners Attitude Toward E-Mentoring. Procedia Social and Behavioral Sciences, 67(November 2011), 464–475. https://doi.org/10.1016/j.sbspro.2012.11.351
- Schachar, M., & Neumann, Y. (2003). Differences Between Traditional and Distance Ed ucation Academic Performances: A meta -analytic approach,. The International Review of Research in Open and Distance Learning, 2(2).
- The Learning House, & Aslanian Market Research. (2016). 2016 Online College Students: Comprehensive Data on Demands and Preferences.
- Trust, T. (2017). Using cultural historical activity theory to examine how teachers seek and share knowledge in a peer-to-peer professional development network. Australasian Journal of Educational Technology, 33(1), 98–113. https://doi.org/10.14742/ajet.2593
- Trust, T., Krutka, D. G., & Carpenter, J. (2016). Computers & Education "Together we are better": Professional learning networks for teachers. Computers & Education, 102, 15–34. https://doi.org/10.1016/j.compedu.2016.06.007
- U.S. Department of education. (2010). Evaluation of Evidence Based Practices in Online Learning: A Meta Analysis and Review of Online Learning Studies. Retrieved from https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf
- Utami, I. G. A. L. P. (2017). Genuine Involvement In Continuous Professional Development: How To See It? In 2nd International Conference on Innovative Research Across Disciplines (ICIRAD 2017). Advances in Social Science, Education and Humanities Research, volume 134 (pp. 210–215). Paris, France.: Atlantis Press, scientific publishing. https://doi.org/http://dx.doi.org/10.2991/icirad-17.2017.40
- Utami, I. G. A. L. P., & Prestridge, S. (2018). How English Teachers Learn in Indonesia: Tension between Policy-driven and Self-driven professional development. Teflin Journal, 29(2), 245–265.
- Utami, I. L. P., Saukah, A., Cahyono, B. Y., & Rachmajanti, S. (2017). Levels of Involvement in the English Teachers' CPD (Continuous Professional Development): The Degree of Professional Enthusiasm. The Journal of Asia TEFL, 14(2), 336–345.
- Vonderwell, S., & Zachariah, S. (2005). Factors that Influence Participation In Online Learning. Journal of Research on Technology in Education, 5191, 213–230. https://doi.org/10.1080/15391523.2005.10782457

Zainuddin, A., Kamaluddin, N., & Hassan, Z. (2012). Exploring Malay Student's Commitment in Online Learning - A Case of Business Management Students. Procedia - Social and Behavioral 67(November Sciences, 2011), https://doi.org/10.1016/j.sbspro.2012.11.309.