

ONLINE DISCUSSION STRATEGIES TO FACILITATE STUDENTS' DISCUSSION FOR A PROJECT WORK IN ENGLISH FOR SPECIFIC ACADEMIC PURPOSES (ESAP) COURSE AT A TECHNICAL ENGINEERING UNIVERSITY

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ABSTRACT

At higher education institutions, hybrid learning that incorporates digital classroom and online teaching and learning activities are becoming increasingly popular norms. Throughout the academia, the usage of online discussion forums is progressively making its way into language classroom as studies have shown that it contributes to a good learning environment if efficiently used by both learners and educators. This qualitative study investigated strategies used by undergraduates as purposive samples in planning and executing ideas for a project via online discussion mode. This simple case study involved 15 second semester undergraduates taking "Professional English 1" course in Bachelor in Engineering Technology program. A focus group interview and follow-up individual interviews were used to elicit information from the undergraduates. All these were also triangulated with document analysis of their reflective notes and drafts of writing works. Several questions were asked to the undergraduates during both interviews to determine their strategies when discussing online. The findings indicate that participants have tremendously benefited from online discussions and have employed three main strategies namely 1) asking for clarification, 2) going over previous responses and 3) using free online services and websites. This study provides useful insight and increases awareness among lecturers on the online discussion strategies used by students, allowing for more successful and meaningful planning of tasks involving online discussion.

Keywords: *Online Discussion, Discussion Strategies, ESAP, Project based learning*

INTRODUCTION

The use of online learning in institutions of higher learning worldwide is constantly evolving and it has become a crucial component in the teaching and learning process, particularly, in the study of languages (Islam et al., 2015). Higher education institutions in Malaysia are currently embracing online learning and the use of technology in the classroom. (Hamdan et al, 2017). One of the key goals of using online learning is to complement traditional methods of teaching and learning such as manual presentation of lessons on the whiteboard, face-to-face interaction, and conventional discussions. The utilization of technology is seen as very useful to both students and teachers. As a result, by incorporating online discussions into the learning process, common concerns such as limited face-to-face contact hours and disinterest during traditional class discussions are addressed. Using the online discussion forum as a platform to communicate ideas is also taking its place in classrooms. The use of online

discussion in language classrooms could facilitate university students in gaining more information and knowledge, both of which are important and essential. Various studies have shown that it has become a common method of online learning because it offers a variety of benefits, including spatial and temporal flexibility in learning and communicating, as well as increased opportunities for students to share and express their ideas, particularly when discussing complex and difficult topics (Wang & Member, 2015).

Demand for graduate with communicative competence who master lingua franca like English language has steadily increased due to growth in businesses and economic activities (Ahmad, et al., 2021). Although the aim of an online discussion is to promote group discussion with less monitoring from the lecturers, some students still feel that they are isolated and disconnected due to no face-to-face physical meetings as reported by Xia, Fielder, and Siragusa (2013). Some studies such as by Clark (2003), An, Shin and Lim (2009) and Qiyun, and Huay, (2007) have demonstrated that students who participated in online discussions do not react immediately when presented with a topic or issue to discuss. One of the issues identified in online learning is learners' rate of involvement and commitment towards learning activities and assessment in order to attain the expected outcomes of ESAP courses (Ahmad, et al., 2021). Furthermore, some students have reported difficulties in recognizing thoughts that need to be shared, worries on ideas being considered irrelevant and fears of being rejected by other members of the group (Vonderwell, Liang & Alderman, 2007). In addition, Ahmad, Ab. Rahim and Ahmad (2021) highlighted the reality that albeit the emergence of 21st century digital education and increased emphasis for English mastery for employability and career, students' attainment of communication skills have yet to increase.

Due to increased importance of online learning, this study aims to identify the online discussion strategies employed by undergraduates to ensure their discussions are on well track. The authors wish to explore how the ESAP students all are able to understand the task, participate and achieve the expected objectives. Understanding the strategies used by the technical university undergraduates in online discussion in completing their proposal writing class projects in an ESAP course like Professional English 1 is pertinent in assessing learning progress and attainment of the intended outcomes of the course. The findings from this study will contribute to the body of knowledge and shed light on challenges to be mitigated and best practices to be undertaken in utilizing online discussion mode as a significant component in language classrooms.

The underpinning theories used to design the online discussion activities in Professional English was the Online Collaborative Learning Theory and the Productive Online Discussion Model. The theory on Online Collaborative Learning proposed by Harasim (2014) was derived from the Constructivism Theory where collaborative learning, knowledge creation, and the use of the internet to navigate interactive learning environment are all significant parts of the process. This theory comprises three important processes, namely; 1) idea generating, 2) idea organizing and 3) intellectual convergence.

Idea generating is the first phase where students gather all the ideas by brainstorming, asking questions, asking for more elaborations and therefore engaging themselves in an autonomous participation. Because this is the stage where students must communicate with one another, the internet is the best platform to collect ideas and collaborate with team members on idea generation (Sawhney & Prandelli, 2000).

Idea organizing is the second process when students begin to showcase their intellectual process and progress in their discussions. They begin to organize their thoughts, materials, and facts by agreeing or disagreeing with others' ideas, as well as guiding one another by addressing problems and providing arguments for concerns that are unclear (Kulikovskikh, et al., 2017). These ideas are organized into separate themes or categories by classifying them into meaningful groups.

Intellectual convergence is the final phase, and it is the most important because students will begin to synthesize and reach mutual agreement among group members. They will expand their knowledge during this process by contributing insightful thoughts to the discussion. Other students participating in the discussion logically connect these ideas to their own thoughts based on what they have learned from the online discussion. (Weinberger, et al., 2007). Furthermore, before reaching any conclusions or decisions, students begin their convergent thinking process during this period.

The Productive Online Discussion Model, on the other hand, is proposed by Gao, Wang and Sun (2009). This model provides a more systematic and thorough framework to understand how learning occurs when the online discussion occurs. This approach focuses on asynchronous discussion and it could assist students in enhancing their cognitive, argumentative, and constructive knowledge skills. Via online discussion platform learners can record detailed discussions, to discover, explore, and link ideas. This model outlines three stages that should be coordinated in an online discussion. These stages are 1) discuss to comprehend, 2) discuss to critique, 3) discuss to construct knowledge and 4) discuss to share improved understanding.

When students engage in effective online discussion, they are able to improve their higher-order thinking skills by learning and understanding things from others (Rahman, et al. , 2011). This is the stage at which students become more responsive to their peers' ideas and attempt to connect new information to previously acquired knowledge or meaning. The outcome of a productive online discussion is when students get to share their improved understanding. It is the phase where students actively synthesize what they have learned and properly express their newfound understanding depending on the discussion's content (Gao, et. al., 2009). Ahmad and Md Said (2013) observed that technical engineering students were drawn to actively participate in discussions by giving opinions, asking questions, arguing, and forwarding suggestions in a more active atmosphere like the project task as compared to normal language lessons that rely on general topics and resources.

RESEARCH METHODOLOGY

The researchers adopted a qualitative study approach to explore engineering technology students' online discussion strategies. This is due to its exploratory and intrinsic nature, as they sought to better understand a specific case or phenomenon better (Stake, 2005) by immersing themselves as participative players in the natural surroundings (Hox & Boeije, 2005). This is

crucial to obtain precise information and experiences from the participants' strategies when discussing online. Three research instruments were used for data collection: focus group interviews, individual interview and reflective notes. In addition, data triangulation process was incorporated via document analysis of the reflective notes. This is crucial for improving data accuracy (Creswell, 2012). The researchers themselves participated by observing the online discussions, managing the interview sessions, and keeping track of the reflective notes to ensure that data was collected accurately and according to procedure.

In the ESAP course, all the students were given ten weeks to discuss ways to implement a project via online discussion forum. This online discussion forum is part of Professional English 1 formative assessment that gauges elements such as students' language use, ideas and content put forth and collaborative abilities. The students were divided in a group of five to six students where each group was instructed to discuss ideas, to plan and to ensure progress was achieved based on their project tasks. The students were given pseudonyms like AF, AL, AM and so on based on Crow & Wile's (2008) recommendation that identities of participants' should be hidden to protect their privacy and data confidentiality. The participants also moderated their own onlinediscussion, while being closely monitored by the lecturers cum researchers who were also part of the discussion. The lecturers' participation in the discussion was critical to drive and sustain the flow of discussion. At certain times, the discussion could be stagnant, so the lecturers prompted with questions for the students to continue discussing actively. In addition, they give important feedback to the ideas if necessary, from time to time.

Fifteen students who were the leaders of the groups for the project, served as purposive samples in the focus group interview. The research participants were interviewed in a focus group setting as being in a group would allow them to develop more ideas, lower their nervousness, and receive encouragement from their peers. Several questions were forwarded to probe the strategies they used to ensure that the online discussions were well sustained and productive. The focus group interview sessions were extended with follow-up in depth interview of five students chosen from the most active and productive discussion groups. In addition, after each online session, participants were required to reflect on the activity by providing short answers to questions about their feelings and experiences in a procedure called reflective notes.

All interview responses were recorded and verbatimly transcribed. The transcripts were handed back to the participants to check data accuracy. The data gathered from the three research tools were categorized into specific themes. To achieve this, the data went through a coding process and analyzed using Nvivo software. Participants' responses were grouped into themes based on the same ideas or terms that they used in their responses and reflective notes. Sub- themes were also identified during this process. After the themes and sub-themes identification, the researchers triangulated the data until they come to an agreement in creating a final set of themes that represent the findings.

RESULTS AND DISCUSSION

The research participants for this qualitative study were engineering technology undergraduates who were studying in their second semester, taking a compulsory ESAP course called Professional English 1. Students can only register in this course, if they have taken and passed the prerequisite course called Fundamental English. In terms of English language

proficiency, majority of these Bachelors students whose age range is between 20 to 22 have low and average English language proficiency level as reflected from their Malaysian University English Test (MUET) grades. Many obtained band 2, meeting the minimum qualification for university entry while a few achieved band 3. Band 2 MUET grade represents language users with limited proficiency who are not really fluent in English and hence could regularly make grammatical errors due to lack of language accuracy mastery.

The fifteen research participants utilized a number of main and sub strategies during their online discussions in order to understand the responses of others and be productive participants. Data from the focus group interviews and individual interviews revealed; for students to understand the responses of other group members, they employed three main strategies, namely 1) asking for clarification, 2) referring to previous responses and 3) searching the internet for better understanding. This is summarized in Figure 1 below;

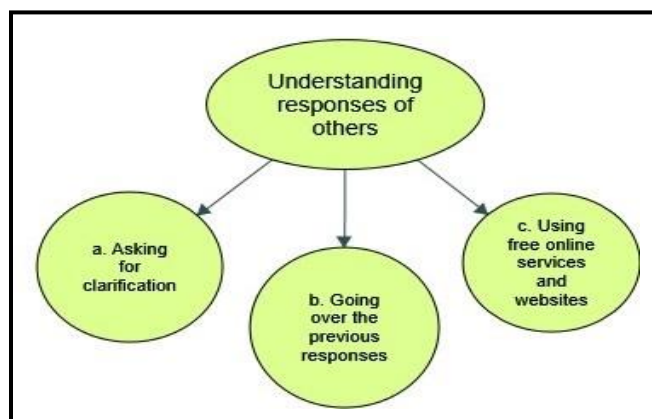


Figure 1: Understanding responses of others

Asking for Clarification

Participants must be able to grasp the flow of the discussion in order to engage in it and ensure that their contributions are meaningful. This is critical because they must be aware of the discussion's direction in order to ensure that all issues addressed are progressing in the proper way. One approach undertaken by the participants was to double-check their knowledge and ask for more clarification. For instance in the focus group interviews, MA and IL stressed that if they do not understand something, “...they will ask to get clear picture what they try to discuss in discussion” and “... and if I still cannot understand about the main idea that my friend post I will directly ask my group members about the post in person or via the online discussion”. This clearly demonstrates that they requested further information in order to have a better grasp of what was being mentioned in the discussion. AS for instance added that “...I am asking them to explain it to me when I did not understand what they are saying, and this was further supported by JL in the where he emphasized that “...if I don't understand I will directly reply to the thread or asking more about the response until I understand what they want to say or what they want to respond”. It is also evident that the participants insisted on having other participants in the online discussion clarify the points that were unclear in order to avoid confusion or misunderstanding in the discussion. On the other hand, HL stated that he chose to “... ask personally to the person

that ask or respond to the question” when he felt that there was a need for the issue or idea to be further elaborated. This is due to the nature of online discussions, where understanding relies primarily on textual replies or postings. It is common for learners to face difficulties in understanding what was posted in the online discussions. Because of this, students opt to seek clarification from other group members, anticipating that their group members' clarification of the unclear matters will help them.

Going over Previous Responses

Participants felt compelled to look over or return to prior comments provided by group members from time to time. This was done in addition to asking for clarification to assure understanding of the discussion contents. Participants like AM, BL, HA, IL and IZ agreed that they needed to reread and integrate the information posted earlier by the other group members in order to comprehend the essence of the discussion. AM stated that he “... *understand from the information that they already post in discussion*”. This was further supported by IZ when she agreed that she understood the content of the group online discussion by rereading their earlier postings.

Participants BL, HZ and IL for instance during the focus group interviews also stated that reading the postings made by their group members more than once allowed them to understand the core of the discussion. They also felt that when reading the related postings twice, they had a better chance of understanding the gist of the discussion and contribute to a quality discussion. The rationale for reading the postings multiple times was to make sure they were all on the same page and discussing the same topic. This would give them more time to think about the issue being discussed and conduct more research on the subject at hand, as well as contribute effectively and participate in the discussion process. Clearly, the learners' involvement and engagement in online discussions will determine whether the conversation is successful. As a result, they must ensure that they are completely accountable and committed to accomplishing the goals of the online discussion.

Relying on Free Online Sources

The participants in this study stated that the internet was the answer to their issues, particularly when it came to adding additional information to their discussions or explaining new and difficult terminology. BL from FGI and HL, from II stated that they relied on the internet to find answers to their questions. BL claimed that the internet offered him a systematic solution to his problem as he stated, “... *when I don't understand I searched in the internet and then I will get the answer*”. In addition, HL even used Google Translate to translate words from the internet discussions that he did not understand into his own language so that he could comprehend what was being said. He claimed that “... *if the person is not available at that time, then I will just post*

the sentence or part that I do not understand to “Google Translate” then I will able to understand to my group members responses in the online discussion”. The usage of internet references is also obvious, as what the following online discussion threads demonstrate. The information in these threads (Figure 2 and Figure 3) was obtained from the websites <https://www.spd.org.sg/barriers> and www.appalachiantrail.org/home/explore.



Figure 2: Example of website providing source of information and points

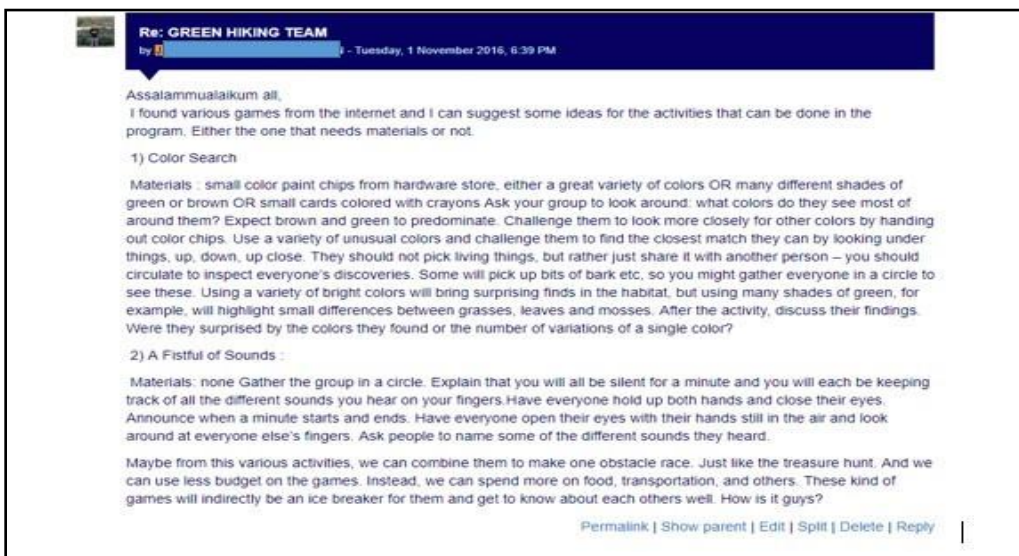


Figure 3: Example of website providing source of information and points

In this study, participants reproduced online content and shared it with other group members. This resulted in the discussions becoming more progressive, as other members began to give feedback as well as expand the issue. As a result, it is critical that today's learners have the ability to obtain accurate and trustworthy information as well as having the ability to distinguish between incorrect and incomplete information found on the internet. These participants were transparent in admitting where they obtained the sources of knowledge from the internet and were eager to discuss them in the online conversation. This act demonstrates their act of picking trustworthy and reliable sources of references from the internet, and not merely sharing information without reading and investigating about its authenticity first.

The study has shown that students engage in a number of differentiated strategies to sustain group discussion based on their level of language mastery. This relates to Haymon and

Wilson (2020) identification of digital technology in education advantages, which include promoting differentiated learning and providing greater opportunities for both teachers and students to interact beyond the classroom. This differentiated learning relates to students' learning pace, English proficiency level, learning styles, intelligence, and interests. Furthermore, studies have shown that technology has the potential to improve basic skills such as time management and communication (Cyril, 2015) which encompass a variety of strategies such as negotiation, discussion, and idea organization and projection. Due to these skills and strategies improvement opportunities, Raposo, Durão, Estradas and Ribeiro (2020) pointed out that the students' motivation to communicate with their teacher and peers may also be enhanced.

This present study has also reported that it is critical for learners to comprehend the context of online discussion before responding to other people's posts as reflected by Wishart and Guy, (2009) in their research work. Other observation from this present study is consistent with Costello's (2010) affirmation that receiving feedback from other learners as well as from lecturers plays a key role in increasing motivation. This was also reflected by the way the ESAP learners' participated in their online discussion activities as shown in this study. The initial part of many online discussion sessions as reported in this present study featured this clarification seeking strategy. This is supported by Frykedal and Chiriac (2018) that effective collaborating behaviour in group work is the consequence of asking accurate and relevant questions and offering extensive elaborations and interpretations. It can be expected that all learners who participated in the online discussion will significantly use the forums in solving problems, gaining access to different point of views and making contributions. In addition, the review of the message to be communicated, raising questions, and requesting or offering help or clarification (Royo, 2014). Using the internet as a source of reference in learning is not new (Manjunath & Kumar, 2017). The internet is so widely used, to the point that the spelling of homonyms is verified and validated using online sources (Tsai et al., 2012). This is similarly found in the present study as responded by the students. Al-shalchi (2009) believes that learners are better equipped to reply to contributions made in an online conversation after they have had time to think about the issue and read what others have previously contributed to the discussion. On the other hand, Csikosova, Senova and Culkova (2012) see online learning activities as a mean to help improve students' knowledge by analyzing and improving their knowledge base.

The usage of online discussion through the online learning forum can help transform students from being passive to active learners. Due to this, it is critical for educators at tertiary institutions to be able to recognize learners' approaches in order to plan the appropriate learning instructions and assessment tasks. Apart from providing better understanding on ways to effectively use the online discussion forum in ESAP courses, this study also provided course designers with the opportunity to create different types of class projects based on the interests and abilities of the learners. Future studies should incorporate the perspectives of lecturers who also serve as course designers. It may offer some insight on how the online discussion may be enhanced, especially in terms of content design, by adding lecturers' impressions and comments about this online engagement. Future studies should also go beyond online discussion as the exploration of learners' language abilities and usage of online activities may also aid in the discovery of additional effective techniques that can lead to a more enjoyable, self-directed, and meaningful learning experience.

CONCLUSION

This study has identified the online discussion strategies that were employed by undergraduates in planning and executing writing tasks for a project in an ESAP course. The findings are reflective of current literature on online discussion and revealed a variety of ways for students to engage effectively in online learning. This study does not suggest that online discussion should take the place of face-to-face learning; rather, it demonstrates the potentials and benefits offered by online discussions as part of the overall learning process by students. This study also found that online discussions are useful to both lecturers and learners where to maximize its benefits, students must utilize the necessary strategies. Lecturers will be able to use their inventiveness when creating content for the online discussion and learners will appreciate the flexibility and autonomy of learning. Learners' strategies during online discussions clearly demonstrate that online discussion has the potential to improve their interest in expressing themselves while also enhancing their comprehension. Above all, this study shows that online discussion aids undergraduates' learning and enhances their social skills by helping them to come up with better ideas when working on a project. The three strategies applied by the research participants are adaptable and applicable to their online learning situations as well as classroom-learning environment.

REFERENCES

- Ahmad, N., Rahim, ISA., & Ahmad, S. (2021). Designing effective online assessment implementation strategies for tertiary language courses-narratives on preliminary overview of challenges. *AIP Conference Proceedings, 2021*.
- Ahmad, N. & Mohd Said, M. K. (2013). Synergizing hard skills and soft skills training collaboration in enhancing industrial training experiences: Narratives of a technical engineering university. *Synergy 1, TeSSH. Chapters on Humanities and Social Sciences*. Vol 1., 52-68, UiTM Kedah Press
- Ahmad, N., Ab Rahim, I. S., and Ahmad, S. (2021). Challenges in implementing online language assessment-A critical reflection of issues faced amidst Covid-19 pandemic. *Knowledge Management International Conference (KMICe) Proceedings, 2021*, <http://www.kmice.cms.net.my>
- Al-shalchi, O. N. (2009). The effectiveness and development of online discussions. *MERLOT Journal of Online Teaching and Learning*, 5(1), 104–108.
- An, H., Shin, S., & Lim, K. (2009). The effects of different instructor facilitation approaches on students' interactions during asynchronous online discussions. *Computers and Education*, 53(3), 749–760. <https://doi.org/10.1016/j.compedu.2009.04.015>
- Clark, T. (2003). Disadvantages of collaborative online discussion and the advantages of sociability, fun and cliques for online learning BT - ICT and the teacher of the future - *Selected Papers from the International Federation for Information Processing Working Groups 3*, 23, 23–25. <http://crpit.com/confpapers/CRPITV23Clark.pdf>
- Costello, P. A. (School of P. W. U. (2010). 26th Annual Conference on Distance Teaching & Learning. In *Effective Assessment of Online Discussion Posts* (pp. 1–5). Retrieved from <http://www.uwex.edu/disted/conference>

- Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. *Educational Research* (Vol. 3).
- Crow, G., & Wiles, R. (2008). Managing anonymity and confidentiality in social research: the case of visual data in *Community research. Economic & Social Research Council*, 8(8), 1–14.
- Cyril, A. V. (2015). Time management and academic achievement of higher secondary Students. *I-Manager's Journal on School Educational Technology*, 10(3), 38–43. <https://doi.org/10.26634/jsch.10.3.3129>
- Frykedal, F. K., & Hammar Chiriack, E. (2018). Student collaboration in group work: inclusion as participation. *International Journal of Disability, Development and Education*, 65(2), 183–198. <https://doi.org/10.1080/1034912X.2017.1363381>
- Gao, F., Wang, C. X., & Sun, Y. (2009). A new model of productive online discussion and its implications for research and instruction. *Journal of Educational Technology Development and Exchange*, 2(1), 65–78.
- Hamdan, N. A., Mohamad, M., & Shaharuddin, S. (2017). Hypermedia reading materials: undergraduate perceptions and features affecting their reading comprehension. *Electronic Journal of E-Learning*, 15(2), 116–125.
- Harasim, L. (2014). Learning theory and online technologies. *Open Learning: The Journal of Open, Distance and e-Learning* (Vol. 29). <https://doi.org/10.1080/02680513.2013.864550>
- Haymon, C., & Wilson, A. (2020). Differentiated reading instruction with technology for advanced middle school students' reading achievement. *Journal of Educational Research and Practice*, 10(1), 70-89. <https://doi.org/10.5590/jerap.2020.10.1.05>
- Hox, J. J., & Boeije, H. R. (2005). Data collection, primary vs. secondary. *Encyclopedia of Social Measurement*. <https://doi.org/10.1016/B0-12-369398-5/00041-4>
- Islam, N., Beer, M., & Slack, F. (2015). E-learning challenges faced by academics in higher education: A literature review. *Journal of Education and Training Studies*, 3(5), 102–112. <https://doi.org/10.11114/jets.v3i5.947>
- Kulikovskikh, I. M., Prokhorov, S. A., & Suchkova, S. A. (2017). Promoting collaborative learning through regulation of guessing in clickers. *Computers in Human Behavior*, 75, 81–91. <https://doi.org/10.1016/j.chb.2017.05.001>
- Qiyun, W., & Huay, L. W. (2007). Comparing asynchronous online discussions and face-to-face discussions in a classroom setting. *British Journal of Educational Technology*, 38(2), 272–286. <https://doi.org/10.1111/j.1467-8535.2006.00621.x>
- Rahman, S., Yasin, R. M., & Jusoff, K. (2011). Knowledge construction process in *Online Learning*, 8(2), 488–492.
- Rangaswamy, Manjunath G, & Sampath Kumar, B. T. (2017). Internet as a source of information: Usage among the faculty members and students. *Library Waves*, 3(1), 36–42. <https://doi.org/10.6084/m9.figshare.11574126>
- Raposo, A., Durão, A., Estradas, A., & Ribeiro, I. (2020). Technology as a tool to enhance motivation and learning. *E3S Web of Conferences*, 171, 1–4. <https://doi.org/10.1051/e3sconf/202017101011>
- Sawhney, M., & Prandelli, E. (2000). Communities of creation: managing distributed innovation in turbulent markets. *California Management Review*, 42(4), 24–54. <https://doi.org/10.2307/41166052>

- Stake, R. E. (2005). Case studies. The SAGE handbook of qualitative research. Retrieved from <http://www.amazon.co.uk/The-SAGE-Handbook-Qualitative-Research/dp/0761927573>
- Tsai, M.-J., Liang, J.-C., Hou, H.-T., & Tsai, C.-C. (2012). University students' online information searching strategies in different search contexts. *Australasian Journal of Educational Technology*, 28(5), 881–895. <https://doi.org/10.14742/ajet.822>
- Vonderwell, S., Liang, X., & Alderman, K. (2007). Asynchronous discussions and assessment in online learning. *Journal of Research on Technology in Education*, 39(3), 309–328. <https://doi.org/10.1080/15391523.2007.10782485>
- Wang, P. A., & Member, S. (2015). Assessment of asynchronous online discussions for a constructive online learning. *Community*, 5(8). <https://doi.org/10.7763/IJIEET.2015.V5.575>
- Weinberger, A., Stegmann, K., & Fischer, F. (2007). Knowledge convergence in collaborative learning: Concepts and assessment. *Learning and Instruction*, 17(4), 416–426. <https://doi.org/10.1016/j.learninstruc.2007.03.007>
- Wishart, C., & Guy, R. (2009). Analyzing responses, moves, and roles in online discussions- Grading rubrics for online discussions. *Interdisciplinary Journal of E-Learning and Learning Objects*, 5, 129–144.
- Xia, J. C., Fielder, J., & Siragusa, L. (2013). Achieving better peer interaction in online discussion forums: A reflective practitioner case study. *Issues in Educational Research*, 23(1), 97– 113.