



THE ASYNCHRONOUS ONLINE DISCUSSION FORUM AS A LEARNING STRATEGY IN A DISTANCE LEARNING ONLINE COURSE: A REFLECTIVE NARRATIVEⁱ

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Abstract:

The paper reflects on the personal experience of being engaged in an asynchronous discussion forum in a postgraduate online course from a leading university in the delivery of online courses. It opens with an overview of the various learning theories which give value to the application of this form of technological tool to be used to support learning in a purely online course. Then, it examines the literature review on the effectiveness of using it, followed by the reflections on the personal experiences of the researcher within this specific online learning environment. The personal narrative method is used here to share the practical insights gathered and some good practices of adopting an effective online asynchronous discussion forum are suggested. I recommend a less structured forum, and the number of registered learners in one particular cohort be reduced to a reasonable size in an attempt to increase learner engagement and participation in the discussions. The acquisition-participation metaphor of Sfard is fundamental to the successful implementation of the asynchronous discussion forum to ensure collective intelligence, through collaborative learning.

Keywords: asynchronous discussion forum, personal narrative, technological tool, online course

Abstract :

L'article reflète l'expérience personnelle d'être engagé dans un forum de discussion asynchrone dans un cours en ligne de troisième cycle d'une université de premier plan dans la prestation de cours en ligne. Il s'ouvre sur un aperçu des différentes théories d'apprentissage qui valorisent l'application de cette forme d'outil technologique à utiliser pour soutenir l'apprentissage dans un cours purement en ligne. Ensuite, il examine la

ⁱ LE FORUM DE DISCUSSION EN LIGNE ASYNCHRONE COMME STRATÉGIE D'APPRENTISSAGE DANS UN APPRENTISSAGE À DISTANCE COURS EN LIGNE: UN NARRATIF RÉFLÉCHISSANT

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revue de la littérature sur l'efficacité de son utilisation, suivie des réflexions sur les expériences personnelles du chercheur dans cet environnement d'apprentissage en ligne spécifique. La méthode narrative personnelle est utilisée ici pour partager les idées pratiques recueillies et quelques bonnes pratiques pour adopter un forum de discussion asynchrone en ligne efficace sont suggérées. Je recommande un forum moins structuré et le nombre d'apprenants inscrits dans une cohorte particulière soit réduit à une taille raisonnable dans le but d'augmenter l'engagement et la participation des apprenants aux discussions. La métaphore acquisition-participation de Sfard est fondamentale pour la mise en œuvre réussie du forum de discussion asynchrone pour assurer l'intelligence collective, grâce à l'apprentissage collaboratif.

Mots-clés: forum de discussion asynchrone, récit personnel, outil technologique, cours en ligne

1. Introduction

Digital technology is defined as any process in which the instructor/the tutor or the learner uses digital equipment like a computer, a smart phone, or a tablet to access digital tools such as learning platforms and virtual learning environments and/or digital learning resources to improve their knowledge and skills (The Scottish Government, 2015). Indeed, e-learning provides simple, flexible and extra learning opportunity to students in Africa (Ngalomba, 2020), which is still struggling with the limited availability of electronic infrastructure (Bekoe, 2020). These digital technologies adopted in e-learning have a tremendous impact on the learning of students (Banyard, 2015). Indeed, within the perspective of personalized learning and student-centred teaching, digital technologies have become the vehicle that facilitates the learning process (Banyard, Underwood, Kerlin & Stiller, 2011). According to Sharples (2000) and Gegenfurtner, Schmidt-Hertha and Lewis (2020), these technologies are flexible, user-centred, ubiquitous, personal, durable and networked, and these are the fundamental qualities for lifelong learning that is mostly personalized and occurs within the online and distance education. Online and distance education is a mode of teaching and learning that is characterized by the separation of teacher/tutor and learner in time and place for the teaching and learning process, and it is mediated by digital technologies for the delivery of the learning content, though there may be the possibility of face-to-face tutorials for interactions between the student and the teacher and among learners; it is the basis for two-way didactic communication (Commonwealth of Learning, 2015). The concept of online or blended learning has been on the higher education agenda in Africa over the last two decades (Nakayiwa, 2020), though this model of education started in 1981 for a first purely online mini-course by the Western Behavioural Sciences Institute (Harasim, 2000).

Despite the development in the online learning approaches, online learning has remained the standard mode of delivery for distance learning programmes (Sadruddin,

2019). The benefits of online learning to learners are, namely it presents information from various perspectives; it allows for more individualized instruction; it enables learners to control their learning process (more personalized learning); it provides them with better and faster access to information; it increases their satisfaction with their course; and it accommodates various learning styles (Chen, Little, Jr, Ross & Zhao, 2012). Though Macgilchrist, Albert and Bruch (2019) imagine, from a social science fiction perspective, the three future “histories” of the 2020s in which learners would become “*smooth users*”, “*digital nomads*” and “*participatory, democratic and ecological humans*” in their use of digital technologies in education, yet this paper examines the uses of online discussion forums in online and distance education. It is one of the more common online instructional strategies used in universities (Cho & Tobias, 2016).

Online discussion forums are asynchronous communication tools that are widely used in Learning Management Systems to foster interaction and collaborative knowledge building among learners (de Lima, Gerosa, Conte & Netto, 2019). Online discussion forums may be synchronous and asynchronous. The difference is clear between these two types of forums. Synchronous discussion forums are supported by media such as videoconferencing and chat, which support the teachers and learners to be more social and to participate in discussions in real time; whereas asynchronous discussion forums are supported by media such as e-mail and discussion boards, that facilitate discussion to take place even when participants cannot be online at the same time, yet it allows them to log on to an e-learning environment at any time and download documents, post messages and exchange feedback between teachers and peers, and among peers (Hrastinski, 2008). The focus of this paper is the asynchronous discussion forums. On account of this flexibility in time and space to learn, learners are engaged in deep learning instead of surface learning practices (Blackmon, 2012). Besides, online class experience and curriculum are delivered through asynchronous approaches to ensure that “*no learner is left behind*” (Mbonyinshuti, 2020).

The Masters of Online and Distance Education (MAODE) is a distance learning online degree course, offered fully online by the Institute of Educational Technology of the Open University, UK. In the module Technology-enhanced learning: practices and debates (H800), learners are initiated to the use of several innovative technological tools. The main tool was the asynchronous discussion forum. Previous studies have analysed the learners’ and instructors’ perceptions, challenges, barriers and benefits of using asynchronous discussion forums in higher education (Aloni & Harrington, 2018; Christensen, Poehl & McFerrin, 2018; de Lima et al., 2019; Nwachokor, Onah & Uddin, 2020). However, studies about the in-depth personal experiences of matured learners of purely online masters’ degree course in the field of online and distance education are limited.

This reflective paper seeks to address this particular area of study. It examines the in-depth experiences and reflections of using asynchronous discussion forum as an online learning tool by the researcher, an online registered learner for the MAODE course at the Open University, UK. It provides a brief literature review on theories of learning,

and empirical evidence, followed by the personal narrative of the researcher-as-a-learner's experiences of how it supported his learning through the course. Some of the practical issues are also highlighted in the paper.

2. Literature review

It is undeniable that the success of the Open University of UK is mainly due to its numerous research in innovation in technology-enhanced learning by developing the most effective distance and online learning methods (Sharples *et al.*, 2012; Sharples *et al.*, 2013). It should be noted, however, that there is a misconception about technology in many universities: it is assumed that technology is an innovation that should lead to prototype, deployment and evaluation (Scanlon *et al.*, 2013). Rather, its use should be viewed from an educational perspective: how it may support learning and how it facilitates teaching and learning (Mercer *et al.*, 2011). It should not be the primary driver of an educational activity but supportive of educational practice (Leaning, 2010). It is only when there is a shift from technology to pedagogy and practice that there is educational transformation and effective online teaching and learning (Scanlon *et al.*, 2013). So, it can be affirmed that the use of technology to enhance learning can be better understood when we look into the theories of learning that underpin online education, including the use of asynchronous discussion. These theories are socio-constructivism, rhizomatic learning, heutagogy, navigationism, connectivism, and lifelong learning.

From the socio-constructivist perspective, the learner learns when he/she reaches his/her "*zone of proximal development*" (Vygotsky, 1978), that is when there is collaboration and sharing of the knowledge with other learners. Learning is thus an activity process (Bruner, 1966). Besides, situated learning theory emphasizes social participation (Brown *et al.*, 1989), whereby the asynchronous discussion forum provides the opportunities for learners to actively participate or interact in knowledge co-construction. Simulation, interactive podcasting and multimedia files are examples of how it is based on socio-constructivism. This allows for "*class-sourcing*" whereby learners choose, analyse, organise and communicate the information through the forum (Tsipurksy, 2013). These opportunities confirm the *acquisition-participation metaphor* of Sfard (1998). Boelens *et al.* (2017) and Gao *et al.* (2013) propound that in a productive forum, learners should "*discuss to comprehend, discuss to critique, discuss to construct knowledge, and discuss to share*".

The rhizomatic learning model assumes that there is no cutting-edge knowledge in a world where knowledge is constructed and negotiated between learners, with no beginning and no end (Cormier, 2011). The six principles underlying this model of learning are multiplicity, connectivism, cartography, heterogeneity, A-signifying rupture and decalomania (Deleuze & Guatarri, 2013). With the asynchronous discussion forum, learners continuously create knowledge depending on the context and learning experiences. There is learning through deep thinking and dialogue, and interactive activities (Alamari, Cristea & Al-Zaidi, 2014; Salter & Conneely, 2015). There is a multiplicity of critical learners' voices that generate various interpretations of the same

course content (Joksimovic *et al.*, 2015). Therefore, the use of asynchronous discussion forums is also based on heutagogy, which focuses on the learner as the generator or creator of new knowledge, in an interconnected world. The learner shares knowledge and resources in a self-determined way (Ashton & Newman, 2006) and he/she grows emotionally from this learning experience (Brown & Mbat, 2015). There is a shift from the instructor-led delivery of content to the student-led knowledge of the content (Muianga, Klomsri, Tedre & Mutimucuo, 2018).

Another relevant theory of learning that caters for the learners of the 21st Century is connectivism. Some of the major principles of connectivism are learning and knowledge rest in diversity of knowledge; knowledge is the process of connecting information sources; learning may reside in non-human appliances; and connections facilitate continual learning (Siemens, 2005). It is obvious, therefore, that connectivism allows learners to delearn, relearn and learn what knowledge they have by exploring and interpreting the ideas, views and perspectives of others in the learning network of the asynchronous discussion forum. Linked to connectivism is navigationism, whereby learners look for, identify, manipulate, organise, classify and evaluate information with the aim of solving problems (Brown, 2006), which is possible with the asynchronous online discussion forum. This allows learning to take place all the times, and it facilitates lifelong learning, which is learner-centred, personalised, situated, collaborative, and ubiquitous (Parajuli, 2016).

2.1 An overview of the use of the asynchronous discussion forum

The effectiveness of asynchronous discussion forums may be improved when the instructor models good social presence, solicits learners' participation in the discussions and grades the discussions. The online activities should evolve around problem-solving, developing projects and organizing debates around the content, and in so doing the instructor's role is to question learners' responses, play devil's advocate, provide timely and modest feedback, allow learners to facilitate discussions, provides protocol prompts, and provide audio feedback (de Noyelles, Zydney & Chen, 2014). Besides, Pena-Shaff and Altman (2015) found that learners who frequently post and respond more frequently to the posts of other learners in the forum learn more effectively. Moreover, in a case study on student creativity in asynchronous discussion forums in a public university, Corfman and Beck (2019) found that through learners-to-instructor interactions in the online discussions, learners develop problem-solving skills and applied domain-specific skills through project development, learn to generate innovative ideas through creativity-relevant processes, and learner task motivation level is increased.

Asynchronous discussion forums have numerous benefits when used in online courses. The learners' exposure to peer responses leads to an increase in the negotiation of meaning (Erylimaz *et al.*, 2015), an increase in learners' self-efficacy (Huang, 2017), and it facilitates peer-to-peer learning (Topping, 2005). For instance, the posting of an essay can help learners to improve their creativity and language writing skills (Foushee, 2018). Moreover, asynchronous discussion forums provide opportunities to introverted

learners who may feel intimidated to participate in-person in a discussion to do so unhesitatingly and more actively in an online learning course (Capsi *et al.*, 2006). It allows learners more time to reflect on their answers and to formulate coherent arguments (Arend, 2009). Indeed, the quality of critical thinking in online discussion forums is greater than in face-to-face discussions as learners have the time to justify their arguments (Aloni & Harrington, 2018).

However, there are many challenges in using the asynchronous discussion forum in higher education institutions. In an empirical exploratory study with instructors, de Lima *et al.* (2019) found that online discussion forum interface designs are often poor and user-unfriendly; since social media platforms are more commonly used for social discussion, learners prefer to use them for instructional discussion and therefore the instructor receives little feedback from them on the online forum; so, the asynchronous forum is used by learners only as a task-environment, not for discussion. This affects the learners' participation, and the learner engagement is, therefore, low (Johnson *et al.*, 2014). Moreover, Nakahara (2005) found that monitoring student active engagement, evaluating activities and providing prompt feedback to online learners are very time-consuming. However, this low rate of instructor's involvement in the forum may also demotivate learners to get engaged in the forum (Mazzolini & Madison, 2007). The initiation, facilitation, completion and feedback required for effective online discussions require different instructional approaches that are not necessarily mastered by instructors in an asynchronous forum (Dennen, 2005). Also, since online and distance education courses are often delivered with a large cohort of learners, Poquet, Dawson and Dowell (2017) found that learners have no sense of belonging and didactic confidence in asynchronous forums.

3. The Researcher's Experience

The H800 forum was a platform which encouraged peer learning in the course. The learners came from different backgrounds and had different characteristics. I am a "*digital immigrant*" and, therefore, I met with much difficulty to understand the Compendium LD. The MAODE classmates posted their designs, which were very simple and comprehensive, in the forum (I would say more comprehensive than a video presentation posted by the tutor). The posts on this learning design by my classmates supplemented my understanding of it. For instance, the use of the software by another learner in the group forum increased my motivation and interests to deepen my understanding of its applications. "*If one of my classmates can use it, why should not I be able to do so?*" I wondered while learning in the forum. Besides, like me, at the initial stage of the posting process, other classmates had the same low spirit about it. This frustrating feeling was posted in the forum. But, then by sharing our anxieties, many of us were able to confidently learn and use it. This was supported by the sharing between two of my online classmates in the H800 forum: "*If you need a mindmap tool, you could try this – <https://bubbl-us>; I have used it before and it is straightforwards*". So, the H800 asynchronous forum supported learning by

allowing learners to provide articles and links that might help slow learners or those with learning difficulties to learn more effectively. This promoted also the moral support for the frustrating ones.

Teaching and learning cannot take place without activities. Indeed, learning should be activity-based for it to be effective. *“What if only an article was given to the students to read? Would this be teaching and learning?”* Of course, not! Through the activities in each week, I was able to understand the module’s learning outcomes and what the tutor expected from me (the expected outcomes) through directed questions. This allowed me to go through the process of metacognition that enhances my critical thinking. Sometimes, I could feel a form of conversation through the activities between my tutor and me, as there was always a flow in the activity that allows instruction to take place and thus self-learning. Feeling the presence of the tutor in the activities was an impetus for a distant learner like me to learn.

Moreover, the H800 forum was used to ensure that learners achieve an acceptable level of learning so that they may work successfully in the assignments. We took the initiative to discuss the requirements of each assignment when the due dates were approaching in the forum. The queries of each student were posted and the students in the group tried to provide the advice or guidance or at least what and how they thought the assignment might be dealt with. By going through the forum, all students might have different perspectives about the assignment and thus take a particular personal stance in doing it the best possible way. It often happened that the tutor provided some guidance when she felt that we were going the wrong way in our online discussion. Assessments form part of teaching and learning, and it was through this counselling in the forum among us and sometimes with the intervention of the tutor that I could learn more effectively. This is consistent with Vonderwell, Liang and Alderman (2007) who point that *“asynchronous forum can be used to integrate assessment activities that can help facilitate meaningful learning”*

3.1 The strengths of using asynchronous forums

3.1.1 Socialisation and interaction

The forum allowed the learners to create a community of H800 learners (Cohort 2019) by developing social and communal learning. We were allowed to present ourselves initially, discuss our objectives, set rules (netiquettes) in the forum, form ideas, argue points and use our creative writing skills to actively participate in our learning through socialisation (*rarely*) and interaction (*most of the time*). Karsenti (2007) rightly points out that *“learners actively construct their learning by engaging themselves and others in reflective explorations of ideas, drawing conclusions and synthesising those conclusions with their previous knowledge”*. Besides, the tutor in the forum provided open-ended questions in the weekly activities to prompt our engagement to encourage self-learning as well as *“peer-negotiated learning”* (Watson, 2008). The quality of the discussion promoted learning in the H800 forum. Indeed, the quality and the extent of scholarly discussions there make the strength of the forum (Durairaj & Umar, 2015).

3.1.2 Flexibility

The H800 discussion forum provided the learners with the possibility to post their messages, arguments, opinions and reflections on the pre-set activities at the time and place suitable for them. I could enter into the forum when I was free at work, at any time of the day and even some times later after a few weeks when I was very busy elsewhere. But my participation in the forum was like the best way to path towards better learning as I could see I was mastering the learning through. Abawajy (2012) asserts that this advantage *“gives students more time to think about the issues and activities before responding to them with better insights”*. Learners could also come back to the forum at any time to reread the activities and the posts over the whole year. Webb, Jones, Barker and van Schaik (2004) maintain that there is *“a record of everything that occurred in the forum and student can have access to them at any time and from anywhere.”*

3.1.3 Formative and summative assessment

Allocating marks for student participation allows for more student participation and therefore more engagement in their learning. In this module, the 10% marks for participation in the first two assignments were a motivating factor for learners to interact with the content and among themselves for more effective learning. I made it a point to read some posts and post my reactions and reflections as often as possible to maximise my assignment marks. Indeed, the asynchronous forum H800 facilitated the assessment of learning and the assessment for learning. The former means *“assessment for the purpose of grading”* whereas the latter means *“assessment with the purpose of enabling learners, through effective feedback, to fully understand their own learning”* (Vonderwell *et al.*, 2007).

3.2 The weaknesses of using asynchronous forums

3.2.1 The student choice and voice

There were learner-learner, learner-content and tutor-learner interactions in H800. However, I had the impression that it was more tutor-led as the weekly activities were pre-set. This sometimes hindered the reflection in action that should occur in learners; the tutor did not provide more choices of topic discussions to encourage student engagement. Student voice was there but choice was limited (Vonderwell *et al.*, 2007).

3.2.2 The listening behaviour of learners

The listening behaviour refers to tasks such as when and how learners interact in the asynchronous forum (Durairaj & Umar, 2015). Learners' discussion could not follow the temporal sequence of the postings. It happened often that I responded to a fifth or eighth post within the forum instead of the first ones. Other learners who were late in the forum did so; thus, the discussion lost its flow and sense to the reader. I also found that only the same few learners were active in the forum. So, many of us were left behind (of course due to our own other commitments – professional, familial, personal or social - or a lack of academic writing competence or a digital incompetence (Harris & Sandor, 2008). A

Lack of participation by a majority and a dominance by a few learners were indeed the main challenge there (Seethamraju, 2014).

3.2.3 Lack of timely and substantive feedback

When the tutor of the module had other professional and family commitments, we did not have immediate feedback. This hampered their reflection and learning process, though the delay of the tutor was only for a couple of days. According to Rossman (1999), feedback is the most frequent concern for online students, who cannot make a meaningful reflection, social interaction and knowledge construction (Seethamraju, 2014). However, the tutor made it her responsibility to inform us of her absence in advance.

3.3 The shift from individual learning to collaborative learning: from the researcher's perspective

On the first week of the start of the H800 module, I was doubtful about my ability to do it successfully. I had the "*feeling of isolation and frustration*" (Hara & Kling, 1999), as I am "*digital immigrant*" (Bennett, Maton & Kervin, 2008), and I lacked technological fluency and electracry. According to me, learning was "*the process of acquiring knowledge through reading and interactions with others not only in books*". Having been a distance learner with the University of South Africa (UNISA) in the early 2000s, with no forum or social media to connect with fellow learners, learning was only an "*act of gaining knowledge*" (Sfard, 1998) through the various tutorial letters and prescribed books. Learning was therefore based on the acquisition metaphor. Besides, interaction was limited only to the subject content. I used to interact with a few fellow learners through the phone. This was my prior experience before joining the H800 module, first time registration with the Open University (OU), UK.

The debates on the concept of *learning* during the first four weeks of study at OU brought about an identity change in me. From individual learning (Acquisition), the OU asynchronous H800 forum made me discover the possibility for collaborative learning (Participatory). I learned how to participate actively through cooperation and collaboration by posting comments, personal reflections, critical analysis of the postings of the other learners, accepting critics from others, and sharing views and hyperlinks as well as articles. This allowed me to build confidence in myself as an online and distance learner (Sfard, 1998). This is consistent with Bateson's theory of learning which differentiates between individual learning (known as the Level 1 of learning where the learner acquires the knowledge to respond in a given context (examinations, for instance) and the collaborative learning (known as the Level 2 of learning where the learner questions the sense and meaning of the context and construct a wider alternative context) (Engestrom, 2001).

At the start of the module study, the number of activities in each week had no sense and I thought that it was not important to do them, but only read through the prescribed articles and the YouTube links. I thought that learning would be sufficient by just doing that. However, when I popped into the H800 forum, the number of posts from

the other learners in the forum made me realise that I was missing a lot out there. Besides, when I read through the posts of some of them, I discovered how enriching the comments, views and opinions were to increase my learning into the content. the context of the forum was constructing more meaning to me. So, I tried to participate as much as my time could permit me to do so. This collaborative perspective of learning helped me grow as a more effective learner. This is the social constructivist approach to online learning. *"We participate, so we are"* (Brown, 2007).

The activities enhanced my learning experience. Indeed, Lave (1988) argues that learning should be situated in the sense that it should be embedded within an activity, context and culture. This Situated Learning Theory is further explained by Brown, Collins and Duguid (1989) who put forward the idea of *"cognitive apprenticeship"* which supports learning by *"enabling students to acquire, develop and use cognitive tools in authentic domain activity"*. Through the weekly activities, I was able to interact with my tutor and my community of H800 learners on the various concepts and perspectives about my learning; clear doubts when I have had them; get the gist of knowledge that I missed out in my reading; interpret the uses of various tools, learning design, learning across contexts, debates on e-learning etc; the tutor prompting me to deepen my understanding and to share my understanding to construct learning for everyone in the forum; and the learners most often responded to my posts. This is consistent to the Richardson (2005)'s deep approaches to learning in higher education that are related here to the 4th and 5th concepts of learning put forward by Saljao (1979), namely *"learning as an abstraction of meaning"* and *"learning as an interpretive process aimed at the understanding of reality"*. This is indeed collaborative learning. All of us have been learning the module through continuous collaboration, and the *"multi-voicedness of the activity system"* (Engestrom (2001) has increased the effectiveness of the learning process in me through the weekly activities.

Besides, the creation of clouds, learning design by CompendiumLD and blogging as well as the *"social presence"* of our tutor in the H800 forum was a motivating learning impetus for me. Each time she responded to our posts, I could feel her enthusiasm for the subject under discussion; she was the organiser and leader of the cohort with much charisma and inspiration for us learners; she always provided us with constructive and developmental feedback; there was also great academic and moral support among us about the assignment completion and our queries about it. This consisted of what learning is from a collaborative perspective. This is what Price, Richardson and Jelfs (2007) called the students' conceptions of the nature of interactions in tutoring. The level of interactivity was so high that there was optimum collaborative learning. By the end of the study of this module, there was no more individual learning as I felt that I owned my learning through OU. *"There is more ownership if there are a productive collaborative activity and the process of learning collaboratively"* (Thorpe, 2008).

4. Recommendations

Based on the above discussions, it is obvious that the online asynchronous discussion forum must be less structured. In the H800 forum, at some time of the year, the tutor has devolved her authority to post the activity to one specific learner. The learners suddenly discovered that the latter was leading the weekly activities. Though it sounds to be a plausible idea, it is recommended that such an opportunity be given to other learners as well throughout the year so that everyone may feel equal. Yet, forums should be student-led too in line with the objectives of the course. The learner may be considered as a content expert (Harris & Sandor, 2008). Such an initiative would ease the academic emphasis that learners may feel with the social presence of the tutor. The forum should also allow them to express freely about their academic worries, learning difficulties and personal problems so that there is also a social life in it. Socialisation is part of learning in a community of learners like H800. This is consistent with Seethamraju (2014) that *"an online discussion forum should ensure collective wisdom and collaborative learning"*.

Moreover, an asynchronous forum must not have too many learners. At the Open University of Mauritius, different cohorts of the B Ed Hons (Primary Education) programme are clustered in one group of online discussion forum. Learners often get messed up in the discussions as the topic of discussion may not be relevant to all cohorts. They are often confused, and the IT department often does not create separate forums for a few learners. Yet, for forums to be effective there should be fewer learners so that messages may be followed and managed by the learners. Abawajy (2012) ascertains that *"as message numbers increase, it can get difficult to manage effectively to assist student learning; learners may also have difficulties to identify relevant content, digest and provide feedback, and to sort out through the numerous irrelevant and disorderly postings"*. So, it is recommended for the Programme Managers and other practitioners to have an acceptable limited number of learners of the same cohort or to divide them into a smaller asynchronous forum to ensure effective learning, maximum learner engagement and participation through a high level of interactivity.

Much evidence found that asynchronous forums promote more effective learning through interactions in the online learning environment. However, studies should be done on the nature of the online relationships (learner-learner and tutor-learners), and the impact of such relationships on the use of the asynchronous discussion forums. How much formal or informal, structured or unstructured forums influence the outcomes of the learning in the online environment? Besides, the perceptions of the online students of the presence of a moderator in the asynchronous forum and its impact on their engagement and participation in the forum should be investigated.

5. Conclusion

The asynchronous online discussion forum is the most effective technological tool and learning strategy that may support online learning of adult learners from developing

countries. Though the Open University of UK is a pioneer in the effective delivery of online and distance education, higher education institutions in the developing world may do their best to provide the most appropriate and liberating education. Through the effective asynchronous online discussion forum, learners are provided with the technological and pedagogical support to meet their educational needs for lifelong learning and professional development. They may connect, create, critically communicate emerging knowledge through the community of learners, though diverse, yet having the main objective of meeting the learning outcomes of the modules in the course. Collective wisdom and collaborative learning are the drivers of generating collective intelligence among the adult, working learners of online courses. However, we must aver that higher education institutions must leave no stone unturned to acquire or develop the necessary technological infrastructure to offer a conducive online learning environment, comparable to the OU H800 forum, and governments must endeavour to address the problem of limited and costly access to the internet and the lack of electracy of learners, who are willing to learn. It is also obvious from my professional experiences in my institution that the technology is there: the university invests much in the acquisition of technological tools, but the pedagogical use of these tools such as the asynchronous discussion forum in the Moodle system, to support online learning is yet to be of educational interest to the management bodies.

About the Author

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References

- Abawajy, J. (2012). Analysis of asynchronous online discussion forums for collaborative learning. *International Journal of Education and learning*, 1(2), 11-21.
- Alamri, A. S., Cristea, A. I., & Al-Zaidi, M. S. (2014). Saudi Arabian cultural factors and personalized e-learning. Paper presented at the 6th International conference on Education and New Learning Technologies, Barcelona, Spain.
- Aloni, M., & Harrington, C. (2018). Research-based practices for improving the effectiveness of asynchronous online discussion boards. *Teacher-Ready Research Review*, 4(2), 271-289.

- Arend, B. (2009). Encouraging critical thinking in online threaded discussions. *Journal of educators Online*. <http://dx.doi.org/10.9743/JEO.2009.1.1> (Accessed on 24 January 2020).
- Ashton, J. & Newman, L. (2006). An unfinished symphony: 21st century teacher education using knowledge creating heutagogy. *British Journal of Educational Technology*, 37(6): 825-840.
- Banyard, P. (2015). The impact of digital technologies on teaching and learning. Unpublished Doctoral thesis. UK: Nottingham Trent University.
- Banyard, P., Underwood, J., Kerlin, L., & Stiller, J. (2011). Virtual learning environments: personalizing learning or managing learners? In M. Thomas (Ed.), *Digital education: Opportunities for social collaboration* (pp.123-141). London: Palgrave Macmillan.
- Bekoe, R. (2020). Recommendations for achieving a virtual future – together. *University World News* (African Edition). <https://www.universityworldnews.com/post.php?story=20200406161738518> (Accessed on 13 April 2020).
- Bennett, S., Maton, K., & Kervin, L. (2008). The ‘digital natives’ debate: A critical review of the evidence. *British Journal of Education Technology*, Vol 39(5), pp 775-786.
- Blackmon, S. J. (2012). Outcomes of chat and discussion board use in online learning: A research synthesis. *Journal of Educators Online*, 9(2). Doi: 10.9743/jeo.2012.2.4
- Boelens, R., De Wever, B., & Voet, M. (2017). Four key challenges to the design of blended learning: A systematic literature review. *Educational Research Review*, 22, 1-18.
- Brown, J. S. (2007). The open learn conference: Researching open context in education. Open Learn Conference: OU website.
- Brown, J. S., Collins, A & Duguid, P. (1989). Situated learning and the culture of learning. *Education Researcher*, 18(1), 33-42.
- Brown, T. & Mbatia, L. (2015). Mobile learning: Moving past the myths and embracing the opportunities. *International Review of Research in Open and Distributed Learning*, 16(2): 115-135.
- Brown, T. H. (2006). Beyond constructivism: Navigationism in the knowledge era. *On the Horizon*, 14(3): 108-120.
- Bruner, J. (1966). *Towards a theory of instruction*. Cambridge, MA: Harvard University Press.
- Burguillo J. C. (2010). Using game theory and competition-based learning to stimulate student motivation and performance. *Computers in Education*, 55(2): 566-575.
- Caspi, A., Chajut, E., Saporta, K., & Beyth-Marom, R. (2006). The influence of personality on social participation in learning environments. *Learning and Individual Differences*, 16, 129-144.
- Chen, Y., Little, Jr. H., Ross, M., & Zhao, Q. (2012). Factors motivating the adoption of e-learning technologies. *Journal of e-learning and Higher Education*, 2012 (2012), 1-17.
- Cho, M., & Tobias, S. (2015). Should instructors require discussion in online classes? Effects of online discussion forum on Community of Inquiry, learner time,

- satisfaction and achievement. *The International Review of Research in Open and Distributed Learning*, 17(2), 123-140.
- Christensen, P., Poehl, T., & McFerrin, K. (2018). Assessing student perceptions of online discussion forums. In society for Information Technology & Teacher Education International Conference, 118-122.
- Commonwealth of Learning. (2015) Open and Distance Learning – Key Terms & Definitions Commonwealth of Learning, http://oasis.col.org/bitstream/handle/11599/829/Definitions_ODL%20key%20terms_20150522.pdf?sequence=4&isAllowed=y (Accessed on 25 December 2019)
- Corfman, T., & Beck, D. (2019). Case study of creativity in asynchronous online discussions. *International Journal of Educational Technology in Higher Education*, 16(22), 1-20.
- Cormier, D. (2011). Rhimazotic learning: Why we teach? Available at <http://davecormier.com/edb/2011/11/05/rhizomatic-learning-why-learn/> (Accessed on 12 October 2019).
- De Lima, D., Gerosa, M., Conte, T., & Netto, J. (2019). What to expect and how to improve online discussion forums: The instructors' perspective. *Journal of Internet Services and Applications*, 10 (20), 1-15.
- De Noyelles, A, Zydney, M., & Chen, B. (2014). Strategies for creating a community of inquiry through online asynchronous discussions. *Journal of Online Learning and Teaching*, 10(1), 153-165.
- Dennen, V. P. (2005). From message posting to learning dialogues: Factors affecting learner participation in asynchronous discussion. *Distance Education*, 26(1), 127-148.
- Durairaj, K., & Umar, I. N. (2015). Analysis of students' listening behaviour patterns in an asynchronous discussion forum. *Procedia – Social and Behavioural Sciences*, 176, 27-34.
- Engestrom, Y. (2001). Expansive learning at work: towards an activity theoretical reconceptualisation. *Journal of Education and Work*, 14(1).
- Eryilmaz, E., Thoms, B., Mary, J., Kim, R., & van der Pol. (2015). Instructor versus peer attention guidance in online conversations. *AIS Transactions on Human-Computer Interaction*, 4, 234-268.
- Foushee, R. D. (2018). Breaking free: The benefits of non-expository, low stakes writing assignments in psychology courses. In T. L. Kuther (Ed.). *Integrating writing into the college classrooms: Strategies for promoting student skills*.
- Gao, F., Zhang, T., & Franklin, T. (2013). Designing asynchronous online discussion environments: Recent progress and possible future directions, *British Journal of Educational Technology*, 44(3), 469-483.
- Gegenfurtner, A., Schmidt-Hertha, B., & Lewis, P. (2020). Digital technologies in training and adult education. *International Journal of Training and Development*, 42: 1, doi: 10.1111/ijtd.12172.

- Harasim, L. (2000). Shift happens: online education as a new paradigm in learning. *The Internet and Higher Education*, 3(1-2), 41-61. doi: [http://dx.doi.org/10.1016/S1096-7516\(00\)00032-4](http://dx.doi.org/10.1016/S1096-7516(00)00032-4).
- Harris, N., & Sandor, M. (2008). Students' views on participation and interaction in student-centred online discussion forums. Proceedings Ascilite, Melbourne.
- Hrastinski, S. (2008). Synchronous and asynchronous e-learning. *EDUCAUSE Quarterly*, 31(4), 51-54.
- Huang, X. (2017). Example-based learning: Effects of different types of examples on student performance, cognitive load and self-efficacy in a statistical learning task. *Interactive Learning Environments*, 25, 283-294.
- Johnson, L., Becker., Estrada, V., & Freeman, A. (2014). NMC horizon report: 2014. The New Media Consortium.
- Joksimovic, S., Kovanovic, V., Skrypnik, O., Gasevic, D., Dawson, S., & Siemens, G. (2015). The history and state of online learning. In *Preparing for the digital university: a review of the history and current state of distance, blended, and online learning*, Canada: Athabasca University.
- Karesenti, T. (2007). Teacher education and technology: Strengths and weaknesses of two communication tools. Proceedings of the 2007 Computer Science and IT Education Conference. Canada: Université de Montréal.
- Lave, J. (1988). *Cognition in practice: mind, mathematics, and culture in everyday life*. Cambridge, UK: Cambridge University Press.
- Leaning, M. (2010). The one laptop per child project and the problems of technology-led educational development. In *High-tech Tots: Childhood in a Digital World*, edited by I. R. M., Berson and M. J. Berson. Information Age Publishing.
- Li, M., & Zhao, Y. (2015). Exploring Learning and teaching in higher education. *New Frontiers of Educational Research*, DOI 10.1007/978-3-642-55352-3_14
- Macgilchrist, F., Albert, H., & Bruch, A. (2019). Students and society in the 2020s: Three future "histories" of education and technology. *Learning, Media and Technology*, 45: 1, 76-89. <https://doi.org/10.1080/17439884.2019.1656235>
- Mazollini, M., Maddison, S. (2007). When to jump in the role of the instructor in online discussion forums. *Computer Education*, 49(2), 193-213.
- Mbonyinshuti, J. (2020). Moving online – one university steps ahead of the pack. *University World News (African Edition)*, <https://www.universityworldnews.com/post.php?story=20200325101106134>
- Mercer, N., Gillen, J., Staarman, K., & Littleton, K., & Twiner, A. (2011). Interactive whiteboards: does new technology transform teaching? In *Learning across Sites: New Tools, Infrastructures and Practices*, Routledge: London.
- Muianga, X., Klmosri, T., Tedre, M., & Mutimucuo, I. (2018). From teacher-oriented to student-centered learning: Developing an ICT-supported learning approach at the Eduardo Mondlane University, Mozambique. *The Turkish Online Journal of Educational Technology*, 17(2), 46-54.

- Nakahara, J., Hisamatsu, S., Yaegashi, K., & Yamauchi, Y. (2005). iTree: Does the mobile phone encourage learners to be more involved in collaborative learning? In Proceedings of the 2005 conference on computer support for collaborative learning: Learning 2005: the next 10 years, 470-478.
- Nakayiwu, F. M. (2020). Online learning in universities: A missed opportunity. University World News (African Edition). <https://www.universityworldnews.com/post.php?story=20200413083638806>. (Accessed on 4 April 2020).
- Ngalomba, S. (2020). E-learning – Time for a paradigm shift. University World News (African Edition). <https://www.universityworldnews.com/post.php?story=2020032606460538> (Accessed on 10 April 2020).
- Parajuli, K. P. (2016). Mobile learning practice in higher education in Nepal. *Open Praxis*, 8(1): Tsipursky, G. (2013). Class-sourcing as a teaching strategy. *Inside Higher Ed*, 41-54.
- Pena-Shaff, J., & Altman, W. (2015). Student interaction and knowledge construction in case-based learning in Educational Technology using online discussions: The role of structure. *Journal of Interactive Learning Research*, 26(3), 307-329.
- Poquet, O., Dawson, S., & Dowell, N. (2017). How effective is your facilitation?: Group level analytics of MOOC forums. In Proceedings of the Seventh International Learning Analytics & Knowledge Conference, 208-217.
- Price, L., Richardson, J., & Jelfs, A. (2007). Face-to-Face versus online tutoring support in distance education. *Students in Higher Education*, Vol 32(1), pp 1-20.
- Richardson, J. T. (2005). Students' approaches to learning and teachers' approaches to teaching in higher education. *Educational Psychology*, 25(6), 673-680.
- Rossmann, M. H. (1999). Successful online teaching using an asynchronous learner discussion forum. *JALN*, 3(2), 91-97.
- Sadrudin, M. M. (2019). Use of asynchronous discussion forum (ADF) and compendiumLD (CLD) as a learning strategy in a distance learning online course: A Reflective narrative. *Journal of Education and Social Sciences*, 7(1), 28-38. <https://doi.org/10.20547/jess0711907103>.
- Saljao, R. (1979). Learning in the learners' perspective: I. Some common-sense assumptions (Report no, 76). Goteborg: University of Goteborg, Institute of Education.
- Salter, N. P., & Conneely, M. R. (2015). Structured and unstructured discussion forums as tools for student engagement. *Computers in Human Behaviour*, 46, 18-25.
- Scanlon, E., Sharples, M., Fenton-O'Creevy, M., Fleck, J., Cooban, C., Ferguson, R., Cross, S., Waterhouse, P. (2013). Beyond prototypes: Enabling innovation in technology-enhanced learning. Open University, Milton Keynes.
- Seethamraju, R. (2014). Effectiveness of using the online discussion forum for case study analysis. *Education Research International*, 1-10.

- Sfard, A. (1998). On two metaphors for learning and the danger of choosing one. *Educational Researcher*, 27(2): 4.
- Sharples, M. (2000). The design of personal mobile technologies for lifelong learning. *Computers and Education*, 34 (2000), 177-193.
- Sharples, M., McAndrew, P., Weller, M., Ferguson, R., FitzGerald, E., Hirst, T., Mor, Y., Gaved, M. & Whitelock, D. (2012). *Innovating Pedagogy 2012: Open University Innovation Report No. 1*. The Open University, Milton Keynes.
- Sharples, M., McAndrew, P., Weller, M., Ferguson, R., FitzGerald, E., Hirst, T., & Gaved, M. (2013). *Innovating Pedagogy 2013: Open University Innovation Report 2*. The Open University, Milton Keynes.
- The Scottish Government. (2015). Literature review on the impact of digital technology on learning and teaching. Edinburg: St. Andrew's House.
- Thorpe, M. (2008). Effective online interaction: Mapping course design to bridge from research to practice. *Australasian Journal of Educational Technology*, 24(1), 57-72.
- Topping, K. J. (2005). Trends in peer learning. *Educational Psychology*, 25, 631-645.
- 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.
- Watson, A. (2008). Developing teaching practice for more effective use of asynchronous discussion: A preliminary investigation. Proceedings Ascille, Melbourne.

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