

The inner voices of students in asynchronous online learning approach

Abel V. Alvarez, Jr.¹ and Hajji R. Palmero²

¹Department of Education, Division of City Schools – Manila, Philippines, e-mail: alvarezabeljr@gmail.com / abel.alvarez@deped.gov.ph, ORCID: <https://orcid.org/0000-0002-2319-6881>

²Department of Education, MIMAROPA Region, Philippines, e-mail: hajji.palmero@deped.gov.ph, ORCID: <https://orcid.org/0000-0003-3177-1185>

| Article Info | Abstract |
|--|---|
| <p>Research Article</p> <p>Received: 31 January 2022 Revised: 13 March 2022 Accepted: 18 March 2022</p> <p>Keywords: Asynchronous online learning, Emergency remote education, Learning engagements, National service training program</p> | <p>Many schools around the world are looking for various approaches to continue the delivery of teaching and learning despite the threat and challenges of the COVID-19 pandemic. Educational institutions considered the idea of mixing and matching the different teaching and learning approaches to address the learning needs and conditions of the students in this time of global health crisis. In the Philippines, the problem of uncontrolled surge of COVID-19 cases put face-to-face classes still on hold, thus, resulting for colleges and universities to engage in emergency remote education. This phenomenon paved the way for courses like National Service Training Program or NSTP, which is a community-based immersion course, to resort to asynchronous online learning delivery. Interestingly, there were three themes or types of learning engagements that were revealed in a study using a phenomenological research design to ten purposively selected NSTP 2 students. These themes are student-content, student-teacher, and student-student engagements. It was found out that the theme student-content engagement is highly present in an asynchronous online learning environment while the other two forms of engagement can be described as limited or lacking. This scenario suggests the need for policy makers and curriculum developers to rethink and revisit the course design and delivery of NSTP 2 to address the challenges experienced by the students in this type of online learning approach.</p> |

1. Introduction

In the Philippine Higher Education context, Filipino learners are required to complete six units of National Service Training Program (NSTP) in the tertiary curriculum as mandated by Republic Act 9163 or the National Service Training Program Act of 2001. The program serves as a mandatory course to all undergraduate students as part of the country's commitment to inculcate civic consciousness, responsibility, and defense preparedness among Filipino citizens. There are three major components of NSTP course namely Civic Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officers Training Course (ROTC).

The NSTP 1 contains theoretical foundations about civic welfare and service training programs and initiatives. During the pre-pandemic, NSTP 1 happens in a classroom-based setting where NSTP instructors and invited resource persons facilitate the course. However, compared to NSTP 2 where it serves as a culmination of the NSTP course, the entire learning interactions take place in a community-based set-up where students apply the theories and concepts that they have learned from NSTP 1 to the partner communities. Hence, it would be noteworthy to investigate the lived experiences of students in an emergency remote education where community immersion at present time is still not allowed by the Philippine government due to the threat of Covid-19.

The current pandemic changed the current educational landscape not only in the Philippines but also in the global arena. Most schools shifted from face-to-face classes to emergency remote education as a potent mechanism of adapting to the pandemic situation and as part of their commitment to providing continued teaching and learning services to students (Alvarez, 2020a; Bozkurt & Sharma, 2020; Bozkurt et al., 2020; Corcuera & Alvarez, 2021c). To illustrate, the locale of this study recalibrated the design of NSTP 1 and 2 courses and transitioned its teaching and learning delivery to asynchronous online learning approach. This serves as the institution's response to mixing

* All responsibility belongs to the researchers. All parties were involved in the research of their own free will.

To cite this article: Alvarez, A.V. & Palmero, H.R. (2022). The inner voices of students in asynchronous online learning approach. *International Journal of Social Sciences and Education Research*, 8 (2), 148-154. DOI: <https://doi.org/10.24289/ijsser.1065915>

and matching the courses being offered via synchronous and asynchronous models of teaching and learning. In fact, the university believes that immersing the students in asynchronous type of online learning allows them to train and shape their capability to become independent learners.

Interestingly, various related studies emphasized the benefits brought by engaging in asynchronous learning (Carbajal, 2014; Simonson et al., 2012; Tafida & Shittu, 2020). Students who are in asynchronous online learning have the freedom to navigate their own learning pace (Carbajal, 2014; Tafida & Shittu, 2020). This gives them meaningful learning opportunities since they are immersed in exploring and deciphering the learning contents and materials (Carbajal, 2014; Cho et al., 2017; Simonson et al., 2012; Tafida & Shittu, 2020). At the same time, the students have the flexibility to learn anytime, anywhere as they are engaged in self-paced learning (Alvarez, 2021; Chaeruman & Maudiarti, 2018; Pang & Jen, 2018).

Furthermore, in an asynchronous learning environment, the interaction and communication process between the teacher and the students happen most of the time through discussion boards, chats, emails, and/or social media platforms which allows the students to freely express their thoughts and insights (Brierton et al., 2016; Tafida & Shittu, 2020). As such, it provides students to present the concepts in a manner that they are more comfortable with since they have more time to think and synthesize their understanding of the issues or topics being discussed (Brierton et al., 2016). Thus, this type of online learning approach provides a space for learners to develop and enhance their thinking processes (Alvarez, 2021; Lowenthal et al., 2017).

Meanwhile, while asynchronous approach offers various benefits for students learning, it is no wonder that it also possesses challenges. Some scholars pointed out that since the interaction is limited between the teacher and the students, there are instances that teachers failed to respond immediately to the concerns or needs of the students (Alvarez, 2020b; Corcuera & Alvarez, 2021a; Corcuera & Alvarez, 2021b; Francescucci & Rohani, 2019; Rosenberg et al., 2017). This results to some students becoming demotivated and it affects their school performance. Likewise, the problem of poor feedbacking and less interaction with their facilitators and peers can be a determinant for students feeling of loneliness considering real-time discussions and communication are absent, thus, in a sense, they feel they are isolated.

On the other hand, some scholars theoretically regard the concept of asynchronous learning environment network or ALN as a form to communicate and connect teaching and learning through computer-mediated communication systems anytime, anywhere (Alavi & Dufner, 2005; Rice et al., 2005; Wieland, 2012). The characteristic of independency of interaction between the teacher and students provide opportunities for the students to think and rethink their own learning process (Wieland, 2012). For instance, students have the autonomy to when and where to accomplish the given learning tasks and what kind of tasks to submit. This gives them the autonomy of time and space as to how they will navigate their learning journey in an asynchronous learning environment.

Another key feature of ALN is the notion of collaboration where constructivist perspective is observable (Alavi & Dufner, 2005; Bransford et al., 2000; Wieland, 2012). Since learning interactions take place using computer-mediated communication means such as Learning Management System, the instructor assumes the role of being a facilitator and serves as a guide on the side of the students in accomplishing the tasks while they ensure the presence of learning interaction among the learners through the learning tasks provided. In a sense, learning does not only happen from the teacher's input but the role of peers in the learning process provides opportunities for students to widen and deepen their knowledge through the supervision of their course facilitator. Guided by the concepts of ALN, it reflects deeper understanding as to how it works especially at the time of the pandemic crisis where there is a sudden shift from the traditional face-to-face setting to remote teaching and learning environment. Therefore, this study intends to examine the lived experiences of selected NSTP 2 students who were immersed in asynchronous online learning environment during the second semester of SY 2020-2021.

2. Methodology

The researchers employed phenomenological research design in a quest to understand the lived experiences of ten purposively selected NSTP 2 nursing students in one of the higher education institutions in the Philippines. This research design served as an opportunity for the researcher to deeply examine the human experiences that they went through (Creswell, 2009; Giorgi, 2009; Giorgi, 2012; Moustakas, 1994) in the asynchronous online learning approach. Likewise, it gave the researchers an outlook of the participants' situations based on their shared stories and journeys they have experienced in remote learning (Creswell, 2014; Giorgi, 2012).

As shown in table 1, all the participants are currently enrolled and studying under the Nursing program in which they took NSTP 2 course as part of their curriculum. The average age range of the students is 20 years old

and they all shared that the mode of learning they had during their NSTP 2 was asynchronous online learning approach. Meanwhile, since individual interviews require a rigorous process of establishing rapport for each participant, the researchers made sure to have an informal exchange of conversations prior to the actual interviews (DiCicco-Bloom & Crabtree, 2006; Doody & Noonan, 2013). In this way, it helped the researcher to break barriers between the researcher and the participants of this study. A semi-structured interview questionnaire was used for individual interviews. Some of the questions that were asked focuses on the experiences of the students at the time of the pandemic crisis. For instance, the researchers asked the students like “what are the benefits of asynchronous online learning approach that helped your learning process?”, “what are the problems or challenges that you encountered in an online learning approach?”, and “how did you manage learning in an asynchronous online learning approach?”.

Table 1. Brief profile of the participants

| Participant | Age | Program | Course | Type of emergency remote education |
|-------------|-----|---------|-------------------------------------|------------------------------------|
| 1 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 2 | 21 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 3 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 4 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 5 | 19 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 6 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 7 | 19 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 8 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 9 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |
| 10 | 20 | Nursing | National Service Training Program 2 | Asynchronous online learning |

Through eliciting this question to the participants, it helped the researchers to gather information in deeply understanding their lived experiences in relation to asynchronous online learning environment. The use of a semi-structured interview process also facilitated smooth flow and open exchange of conversations which helped the researcher to gather thick and rich information about the participants’ experiences in learning NSTP 2 course in an asynchronous approach (Kvale, 1996; Patton, 1987). In fact, it was emphasized by Creswell (2014) that a phenomenology study usually range three to ten participants to be interviewed. This goes to the idea of data saturation wherein the researchers observed from the ten participants that there were already no new insights and thoughts being shared, thus, this made sense for the researchers to decide and consider the number of the participants to be final. At the same time, to also ensure the confidentiality of the participants as well as for the protection of their identity, the researchers anonymized the participants by tagging them as P1 or participant 1.

Table 2. Summary of initial codes and themes

| Theme | Initial codes | Sample Responses |
|----------------------------|---|--|
| Content-student engagement | Modular online activities | “I must say that [the] modules were great. I had a fun time learning the course. I have learned so much.” (P6) |
| | Course materials interaction | “I would love learning independently...interacting with the course materials...it was an amazing experience learning on my own the materials provided to us.” (P10) |
| Teacher-student engagement | Limited interaction with course facilitator | “There were times that I must consult my course facilitator because I cannot understand the topic on my own... our interaction with our course facilitator was very limited...” (P1) |
| | Less supervised environment | “...this kind of learning approach helped me to further develop my capability to learn at my own pace even though I had less engagement with my teacher in this course.” (P9) |
| Student-student engagement | Lack of collaborative or peer engagement activities | “I thought of having group activities... however, it was quite disappointing because I felt alone in this course.” (P2) |

More so, after the interviews were transcribed, the researchers read and reread the transcripts to grasp the shared meanings of the participants. This process helped to identify gaps and initial codes that might emerge. As shown in table 2, the data were analyzed using Giorgi and Giorgi’s descriptive phenomenological psychological analysis. From the initial codes that emerged, these were translated into psychologically sensitive chunks of expressions to facilitate detailed process of analyzing the phenomenon being studied. Then, the researchers sought feedback from their colleagues about their perspectives and thoughts on the initial codes that emerged from their study. This process served to ensure increasing the credibility of the findings (Lincoln & Guba, 1985). Finally, the researchers reanalyzed the initial codes from the feedback they gathered and categorized these chunks of codes towards coming up with a set of themes.

3. Findings

There were three forms of engagements or themes that were revealed in this study. The theme content-student engagement talked about the idea that learning engagement can happen through the interaction of students with their learning materials. This shows that student-content engagement can help contribute to students' development and enhancement towards autonomous learning. For instance, P3, P4, P6, and P9 expressed the idea that immersing them in an asynchronous online learning approach was a challenging learning experience. However, it was also agreed by the participants that this also helped them to realize that learning can also happen through highly engaging with the learning materials and resources. P4 and P9 shared that:

"I love how the NSTP course works for me. Our course facilitator provided us with various learning materials which are all easy to be understood. There were times that I emailed my facilitator and asked some questions. Although at first, I am hesitant to continue whether I could finish the course, but here I am... done with the course, and learning the NSTP course asynchronously, I think, suits very well since the materials are very informative." (P4)

"At first, I have to decipher everything since this learning approach was new for me. But as I go through with the course, I have learned to be responsible and interact with the learning materials. I must say that [the] modules were great. I had a fun time learning the course. I have learned so much. (P6)

Some of the participants also highlighted their experiences as the afore-cited modality of teaching gave them the chance to learn on their own. Both P5 and P10 expressed their experiences in NSTP course as something unique.

"It was disappointing at first because I thought our course facilitator will fully facilitate the course discussion. However, when I was able to accomplish our first formative assessment, it gave me joy and [a] sense of independence that I could also learn through the materials provided to us at my own pace. It was exceptional." (P5)

"I never imagined that I would love learning independently and, simply, interacting with the course materials. Very informative learning materials and it was an amazing experience learning on my own the materials provided to us." (P10)

The second theme focuses on the teacher-student engagement in which it centralized on limitation of learning interaction between the teacher and students. Since the NSTP course was delivered through asynchronous online learning and the student must accomplish the modules and activities at their own pace, the course facilitator also provided the students the opportunity to ask questions whenever students experienced encountered difficulty understanding the lesson. The setting of synchronous appointments such as emailing and chatting on Microsoft Teams or Canvas were some of the ways to ensure teacher-student connectedness in the whole duration of the NSTP course. Both P1 and P3 pointed out that they still sometimes contact their course facilitator to clarify, for example, instructions in the module.

"To be honest, I was disappointed because I thought that this will be an easy course since the course was delivered asynchronously. But I was wrong. There were times that I must consult my course facilitator because I cannot understand the topic on my own. I found sometimes the instructions vague, so I must email my facilitator. Our interaction with our course facilitator was very limited...and I understand." (P1)

"When our course facilitator discussed that the course will be delivered asynchronously, I was nervous because I knew from the very beginning that there would be less interaction with our course facilitator. I don't have any choice but to face the challenges of accomplishing the tasks on my own. But there were instances, if I remember, that I have to reach out with my course facilitator because I cannot understand the instructions." (P3)

While P4 and P9 reiterated that having been in a less supervised environment by the course facilitator might be challenging on part of the students, it also paved the way for them to develop and enhance their sense of responsibility in accomplishing the course requirements.

"Yes, that's true! It was difficult to face the reality that we have to submit our requirements without or with less interaction with our facilitator, but this also gave me [a] sense of accomplishment since this kind of learning approach helped me to further develop my capability to learn at my own pace even though I had less engagement with my teacher in this course." (P9)

The last theme highlights student-student engagement as a learning interaction that was limited or lacking throughout the entire course considering that the learning design for NSTP course was focused on individual accomplishments of the modules. Some of the participants have emphasized that the absence of collaborative activities inhibits the students to learn from their colleagues and to engage in meaningful and fruitful learning interactions. To wit, P2 and P7 expressed their experiences from the course:

“I thought of having group activities or requirements that will require us to submit as a group. However, it was quite disappointing because I felt alone in this course. The focus of the course was more on accomplishing the modules alone. I hope there would be group activities even if the course is done asynchronously.” (P2)

“Unfortunately, we did not have any group activities in NSTP. That’s unfortunate since I am really looking forward to collaborating with my classmates even at a distance. But as I observed the flow of the course, it was much on accomplishing the modules...the materials provided to us. And I’m not happy about it. It’s like you’re just on your own.” (P7)

Likewise, P8 averred that the pre-pandemic classroom engagement which provided the opportunity to work and accomplish some of their learning requirements as a group. P8 also shared that having been enrolled under the asynchronous online learning approach gave her the time to work on her own. However, she also opined that she and her colleagues are looking for collaborative activities for them to learn more in the course.

“It’s saddening because I was raised in a traditional classroom where some of our activities were given collaboratively to accomplish, and I have the chance to know my classmates. But this pandemic challenged us not only to be physically divided but sometimes even in a virtual mode...still collaboration is not allowed. Yes, it gives me the opportunity to work my requirements at my own pace, but I still believe that group activities will help me to enhance my...our learning.” (P8)

4. Discussions

The findings of this study present the experiences of NSTP 2 students who were immersed in an asynchronous online learning environment in the time of the pandemic crisis. Considering the university’s commitment to providing quality and relevant learning experiences to its students, the NSTP department recalibrated the course by designing and delivering the community immersion aspects in a meaningful asynchronous online modular approach where students have the autonomy and flexibility learn at their own pace.

Interestingly, the findings showed three forms of engagement that the participants have experienced in this type of online learning approach. Many consider asynchronous online learning as an approach that allows students to think and explore the learning materials on their own (Alvarez, 2021; Carbajal, 2014). It helps students to immerse thoroughly with the content resources since they are highly engaged with the content provided. Considering that students have limitations to interact with their colleagues, the responsibility to learn at their own pace is within their control. It further presents the capability of the students to rethink and rediscover their own learning by learning how to decipher the learning concepts and resources that might be helpful in creating their outputs (Alvarez, 2021; Cho, et al., 2017; Simonson et al., 2012; Tafida & Shittu, 2020). This form of learning engagement shows that interaction with the content materials can help enhance one’s sense of learning responsibility. This also enables them to develop their behavior of becoming independent learners. Despite the struggles they faced in emergency remote education, the case of the participants showed that learning has no boundaries and learning interaction can also happen through engaging with various content materials and resources.

Also, looking at the traditional teaching and learning environment where students interact with their course facilitator anytime in a campus-based set-up, however, the students expressed that in an asynchronous online learning environment, their interaction with their course facilitator was limited to using learning management system, messaging, emails, and social media accounts (Brierton et al., 2016; Tafida & Shittu, 2020). Since flexibility and autonomous learning are given to students (Chaeruman & Maudiarti, 2018; Pang & Jen, 2018), it is also expected that they can process their learning on their own with limited supervision or facilitation from their course facilitator or instructor.

Meanwhile, in the case of the findings presented, some shared their disappointments because of various issues such as difficulty comprehending the instructions, vague assessments, and less effective transfer of learning. This phenomenon projects some of the challenges they experienced considering it was the first time that the NSTP 2 course was implemented in a fully asynchronous online learning approach. On the contrary, it was claimed by

some students that having been in a less supervised environment allows them to be responsible and accountable in their own learning. This presents the ability of the students to develop their ability to think critically, engage in self-reflective practice, and manage the pacing of their learning (Alvarez, 2021).

Compared to the two previous engagements, the student-student engagement can be characterized as poor or lacking since the course was designed using physical classroom interaction. This results to negative experiences of students considering that some or most of the students still enjoyed having collaborative activities with their classmates. It can be seen that in an asynchronous online learning environment the focus of some course facilitators is for students to interact and accomplish the learning modules or activities.

In a nutshell, the lived experiences shared by the students provide opportunities for policymakers and educators to reassess the way they assess, deliver, and evaluate their students' learning at the time of emergency remote education. This study serves as a good attempt in deepening one's understanding with the learning journey that the students are going through especially in a time of uncertainty where limitations, for instance, in teaching and learning are observable around the globe. Theoretically speaking, the findings provide a grasp about the importance of maximizing various learning strategies, activities, and engagements even in an asynchronous online learning environment considering that these students were suddenly immersed in an emergency remote education. Hence, it is essential to provide various learning engagements which is not limited to course materials interaction. Central to this understanding, the course facilitators, for instance, can include asynchronous activities that employ discussion board activities and/or assignments that require group participation. In this way, it will facilitate active interaction among students through having a learning space for collaboration.

5. Conclusion and suggestions

Indeed, this study serves as means to voice out the lived experiences of NSTP 2 students who were immersed in an asynchronous online learning environment. The shared experiences of students provided an opportunity to deeply understand the learning journey they have gone through and how these experiences affected their learning engagements in the course. Although the participants averred positive response vis-à-vis student-content engagement in an asynchronous online learning environment, the limitations opined as to student-teacher and student-student engagements need to be given attention and focus.

It is suggested, therefore, for policymakers, administrators, academic staff, and curriculum developers to revisit the course design and delivery, and not just merely focus on the learning materials or content processes. Likewise, the need to focus more on strengthening student-student and student-teacher interactions in the course design and implementation will help to ensure to address the learning gaps of the students and to provide more meaningful learning experiences.

Author contribution statements

Author contributed all to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript.

Disclosure statement

No potential conflict of interest was reported by the authors.

Ethics committee approval

All responsibility belongs to the researchers. All parties were involved in the research of their own free will.

References

- Alavi, M., & Dufner, D. (2005). Technology-mediated collaborative learning: A research prospective. In S. R. Hiltz & R. Goldmann (Eds.), *Learning together online* (pp. 191–214). Mahwah, NJ: Erlbaum.
- Alvarez, A.V. Jr. (2020a). The phenomenon of learning at a distance through emergency remote teaching amidst the pandemic crisis. *Asian Journal of Distance Education*, 15(1), 144-153, <https://doi.org/10.5281/zenodo.3881529>
- Alvarez, A.V. Jr. (2020b). Learning from the problems and challenges in blended learning: Basis for faculty development and program enhancement. *Asian Journal of Distance Education*, 15(2). <https://doi.org/10.5281/zenodo.4292631>
- Alvarez, A.V. Jr. (2021). Navigating students' experiences in asynchronous online learning modality. *Globus An International Journal of Management & IT*, 13(1). <https://doi.org/10.46360/globus.mgt.120212001>
- Bozkurt, A. & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, 15(1). <https://doi.org/10.5281/zenodo.3778083>

- Bozkurt, A., Jung, I., Xiao, J., Vladimirsch, V., Schuwer, R., Egorov, G., Paskevicius, M., (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, 15(1), 1- 126. <https://doi.org/10.5281/zenodo.3878572>.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Brierton, S., Wilson, E., Kistler, M., Flowers, J., & Jones, D. (2016). A comparison of higher order thinking skills demonstrated in synchronous and asynchronous online college discussion posts. *NACTA Journal*, 60(1), 14-21.
- Carbajal, C. (2014). Real-time or anytime learning: synchronous and asynchronous learning explained. virtual school blog by connections academy. <http://www.connections-academy.com/blog/posts/2014-09-26/Real-Time-or-AnytimeLearning-Synchronous-and-Asynchronous-Learning-Explained.aspx>
- Chaeruman, U. A., & Maudiarti, S. (2018). Quadrant of blended learning: A proposed conceptual model for designing effective blended learning. *Jurnal Pembelajaran Inovatif*, 1(1), 1-5. <https://doi.org/10.21009/JPI.011.01>
- Cho, M. H., Kim, Y., & Choi, D. (2017). The effect of self-regulated learning on college students' perceptions of community of inquiry and affective outcomes in online learning. *The Internet and Higher Education*, 34, 10-17. <https://doi.org/10.1016/j.iheduc.2017.04.001>
- Corcuera, L. C., & Alvarez, A.V. Jr. (2021a). Learners' perceptions in learning English language through blended learning approach. *Globus Journal of Progressive Education*, 11(1), 60-66. <https://doi.org/10.46360/globus.edu.220211012>
- Corcuera, L. C., & Alvarez, A.V. Jr. (2021b). Teacher's roadblocks in the time of quarantine teaching. *International Journal of Social Sciences and Education Research*, 7(4), 427-434. <https://doi.org/10.24289/ijsser.1003162>
- Corcuera, L. C., & Alvarez, A.V. Jr. (2021c). From face-to-face to teaching at a distance: Lessons learned from emergency remote teaching. *Asian Journal of Distance Education*, 16(2), 166-179. <https://doi.org/10.5281/zenodo.5793090>
- Creswell, J. W. (2009). *Research design: Qualitative and mixed methods approaches*. Sage
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. Sage.
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical education*, 40(4), 314-321. <https://doi.org/10.1111/j.1365-2929.2006.02418.x>
- Doody, O., & Noonan, M. (2013). Preparing and conducting interviews to collect data. *Nurse researcher*, 20(5). <https://doi.org/10.7748/nr2013.05.20.5.28.e327>
- Francescucci, A., & Rohani, L. (2019). Exclusively synchronous online (VIRI) learning: The impact on student performance and engagement outcomes. *Journal of Marketing Education*, 41(1), 60-69. <https://doi.org/10.1177/0273475318818864>
- Giorgi, A.P., & Giorgi, B.M. (2003). The descriptive phenomenological Psychological method. In P.M. Camic, J.E. Rhodes & Yardley (Eds), *Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design* (pp. 243-273). American Psychological Association.
- Giorgi, A. (2009). The descriptive phenomenological method in psychology: A modified Husserlian approach. Duquesne University Press. <https://doi.org/10.1163/156916210X526079>
- Giorgi, A. (2012). The descriptive phenomenological psychological method. *Journal of Phenomenological psychology*, 43(1), 3-12. <https://doi.org/10.1163/156916212X632934>
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Sage.
- Moustakas, C. (1994). *Phenomenological Research Methods*. Sage. <https://dx.doi.org/10.4135/9781412995658>
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Sage.
- Lowenthal, P., Dunlap, J., & Snelson, C. (2017). Live synchronous web meetings in asynchronous online courses: Reconceptualizing virtual office hours. *Online Learning Journal*, 21(4), 177-194
- Pang, L., & Jen, C. C. (2018). Inclusive dyslexia-friendly collaborative online learning environment: Malaysia case study. *Education and Information Technologies*, 23(3), 1023-1042. <https://doi.org/10.1007/s10639-017-9652-8>
- Patton, M. Q. (1987). *How to use qualitative methods in evaluation* (2nd ed.). Sage.
- Rice, R. E., Hiltz, S. R., & Spencer, D. H. (2005). Media mixes and learning networks. In S. R. Hiltz & R. Goldmann (Eds.), *Learning together online* (pp. 215–238). Mahwah, NJ: Erlbaum.
- Rosenberg, J., Akcaoglu, M., Willet, K. B. S., Greenhalgh, S., & Koehler, M. (2017, March). A tale of two Twitters: Synchronous and asynchronous use of the same hashtag. In *Society for Information Technology & Teacher Education International Conference* (pp. 283-286). Association for the Advancement of Computing in Education (AACE).
- Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2012). *Teaching and learning at a distance: Foundations of distance education* (5th ed.). Pearson.
- Tafida, A. G., & Shittu, K. O. (2020). Blending Synchronous and Asynchronous Communication Technologies in English as a second Language Teaching and Learning. *Gombe Savannah Journal of Language, Literature, and Communication Studies*, 1, 1-10.
- Wieland K. (2012) Asynchronous Learning Networks. In: Seel N.M. (eds) *Encyclopedia of the Sciences of Learning*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4419-1428-6_921