AUTHOR:
Dr Christa van Staden[1]
Prof Liezel Nel[1]

AFFILIATION:
[1]University of the Free State, South Africa

DOI: https://doi.org/10.38140/pie.v41i1.6294

e-ISSN 2519-593X
Perspectives in Education
2023 41(1): 195-210

PUBLISHED:
31 March 2023

RECEIVED:
5 August 2022

ACCEPTED:
17 March 2023

Using WhatsApp-based mobile learning environments during abrupt switches to online learning: A duoethnographic account

Abstract

Abrupt switches to online learning without face-to-face contact between facilitators and students can cause distress and have a negative impact on student success. As students use instant messaging applications (IMAs) to communicate with one another, we have integrated WhatsApp-based mobile learning environments (MLEs) in two disparate higher education settings to facilitate learning. Christa used an MLE pre-pandemic in a postgraduate distance education context, while Liezel used several MLEs during the pandemic in an undergraduate contact education context. In this duoethnographic[1] account, we share our stories about using these MLEs during times of distress. Duoethnography is a collaborative methodology that allowed us to juxtapose our life histories to create multiple understandings of the phenomenon to learn from one another. With currere as theoretical framework, we employed storytelling to compare our life histories, educational contexts and beliefs while we illustrate a sense of personal change. In addition to sharing our insights regarding the affordances and challenges related to WhatsApp-based MLEs, we illustrate how this dialogic methodology facilitated dialogue and reflection – affording two educational researchers in disparate higher education contexts deeper insights regarding their own practices.

Keywords: *Contact education, distance education, duoethnography, emergency remote education, higher education, instant messaging applications, WhatsApp, South Africa.*

1. Setting the stage

An urgent need for change.

Following disruptive events in our two disparate South African higher education settings, we were concerned that abrupt switches to online learning without face-to-face contact between our students and us could cause distress and have a negative impact on student success. Therefore, we needed to find a way to keep in contact with our students. Due to the popularity of the WhatsApp instant messaging

1 Please note: As duoethnographers tell their stories, this methodology is not characterised by an extensive list of references. However, we do believe that the methodology needs to be well referenced.

Published by the UFS
http://journals.ufs.ac.za/index.php/pie

application (IMA) amongst our students, we opted for WhatsApp-based mobile learning environments (MLEs) to facilitate learning during the abrupt switches to online learning.

Since its introduction in 2009, lecturers globally have used WhatsApp to create MLEs for their students (Bouhnik & Deshen, 2014; Güler, 2017; Sari, 2018; Sayan, 2016; Zulkanain, Miskon & Abdullah, 2020). It is therefore not surprising that WhatsApp was used before and during the COVID-19 pandemic to support teaching, learning and assessment when lecturers were separated from their students (Jabbar *et al.*, 2021; Misaghi *et al.,* 2021; Susilo & Sofiarini, 2021). In this duoethnograhic account we discuss the affordances and frustrations of using WhatsApp-based MLEs pre-pandemic in a postgraduate distance education context (Christa) and during the pandemic in an undergraduate contact education context (Liezel). Although much has been written about the affordances of WhatsApp-based MLEs, less is known regarding the educational challenges presented by the limited functionalities of WhatsApp.

Therefore, the purpose of this research was to share our stories about using WhatsApp-based MLEs during times of distress. We juxtapose our life histories to create multiple understandings to learn from one another. We also revisit our practices within two disparate higher education contexts to gain deeper insights regarding our WhatsApp-based MLEs to learn from one another to imagine a better future. Our duoethnographical account was guided by the following questions:

- How did we (two educationalists) use WhatsApp-based MLEs during abrupt switches to online learning in two disparate higher education settings?
- How did duoethnography facilitate reflection and insight into the integration of WhatsApp-based MLEs?
- What are the implications for our future teaching practices?

2. A peek behind the scenes

Pre-production operations.

Duoethnography is a collaborative methodology that requires at least two researchers who differ in important ways to juxtapose their life histories in order to create multiple understandings of a specific phenomenon (Norris & Sawyer, 2016). This methodology is based on the idea that openness to others' stories offers the potential for reconceptualising one's own beliefs (Sawyer & Norris, 2012). We and our educational contexts (Christa's postgraduate distance education versus Liezel's undergraduate contact education) differed in important ways. Therefore, we assumed that duoethnography would provide us with opportunities to learn from each other while we cross-examined and reconceptualised our existing beliefs (Green, 2008; Krammer & Mangiardi, 2016; Norris, 2008).

Sawyer and Norris (2013) postulate that duoethnography is useful to emphasise complex, reflexive, and aesthetic aspects of both works in process and in products (Sawyer & Norris, 2013). Through this methodology, we could explore our different identities to understand how our teaching practices have been influenced culturally and socially (Sawyer & Norris, 2013). We could use our own biographies as research sites to allow us to open ourselves to learning from each other's stories and opinions (Sawyer & Norris, 2013). This allowed us to perform experiments on ourselves to better understand the efficiency of our practices during abrupt switches to online learning. We have used duoethnography to create dialogic narratives regarding our perspectives on MLEs, and we invite our readers to enter our conversations (Norris *et al.*, 2016).

Duoethnography is embedded in two narrative traditions, namely *currere* (or critical self-reflection) and storytelling (Green, 2008) both of which are scientifically recognised (Krammer & Mangiardi, 2016; Norris *et al.*, 2016; Sawyer & Norris, 2013). For the purpose of this research, we employed *currere* as a theoretical framework and used storytelling to convey our stories in such a way that our readers might feel as if they are eavesdropping.

Currere emphasises the importance of personal experience and subjectivity within educational contexts and originated in the work of William Pinar during the 1970's. The Latin term *currere* means "to run" through one's own experiences, feelings, and values to develop a sense of self-understanding and personal identity. It focuses on reflection and self-examination rather than transmission of pre-determined knowledge and skills (Pinar, 1975). It is a continuous process consisting of four steps, namely regression, progression, analysis, and synthesis (see Figure 1) and aims at mobilising engaged pedagogical action (Pinar, 1975).

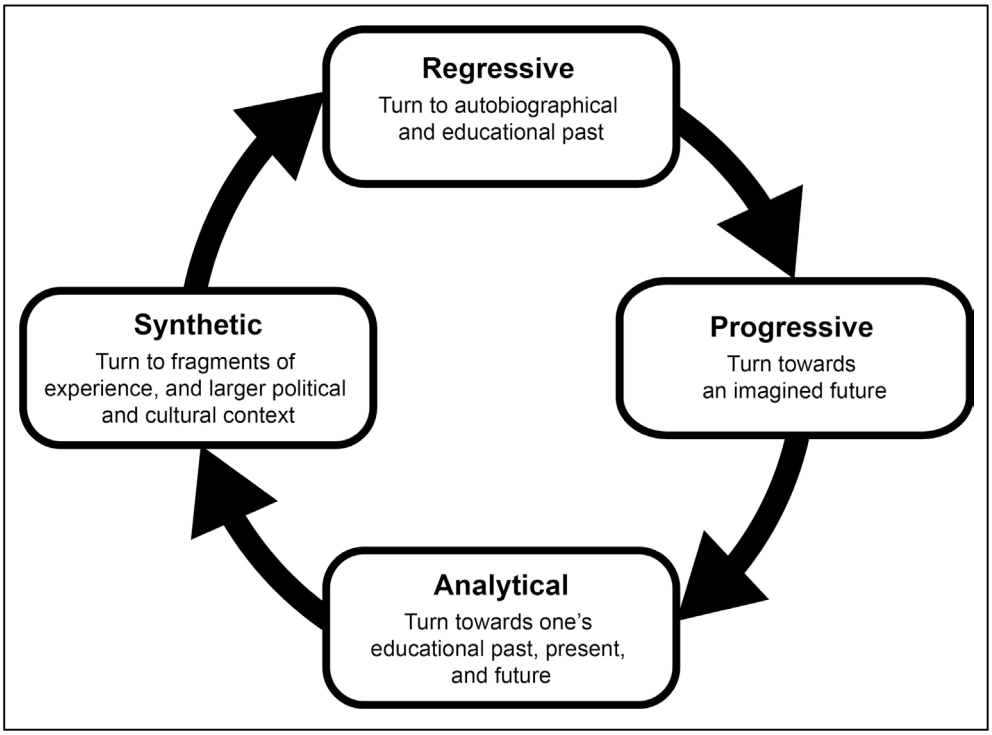

Figure 1: The *currere* method (adapted from Pinar, 1975).

Since each step builds on the previous one, it allowed us to juxtapose our life histories and educational contexts, reflect on our individual experiences, and ultimately develop a deeper self-understanding.

The regressive step required reflection on current experiences, thoughts, and beliefs. It was useful to capture our histories and to explore our beliefs and values as well as the cultural, historical, and social forces that shaped our identities. We explored our attitudes and beliefs, took note of our lives in-universities, as-lecturers, with-books, and with other university-related artifacts. We also investigated our interests in some of the subjects and lecturers, disinterests

in others, and we reminded ourselves of how we overcame struggles in the past – often through trial and error.

The progressive step allowed us to imagine alternative futures and possibilities for ourselves and the world around us. We explored new ideas and perspectives, and considered how these might challenge our existing beliefs and values to gain a better understanding of ourselves, and the world around us.

The analytic step required a focus on the here and the now. We engaged in critical analysis of our current experiences and explored the new ideas and perspectives we have encountered. We explored contradictions and tensions between our current beliefs and values. We also explored the new ideas we have encountered to develop a more nuanced and sophisticated understanding of the world to freely imagine our futures.

During the synthetic step, we synthesised our new learning with existing beliefs and values. We explored how we could integrate new perspectives into our worldviews and how we could modify our beliefs and values as a result of our learning. We reflected on how our different experiences in different contexts contributed to a broader educational drive towards social justice while we developed our unique perspectives and ideas.

Then, we needed a way to convey our experiences to a wider audience. Breault (2015) recommends that ways should be explored to make conversations transparent enough to witness the transformative process that is central to duoethnography. We brainstormed several possibilities, but traditional methods were too restrictive. Subsequently, we selected storytelling as means to convey our findings (Norris *et al.*, 2016). Storytelling allowed us to share our experiences in such a way that we could – as Mead (2014) recommends – convey values and emotions, while we reveal similarities and differences between our experiences. We were also attracted to storytelling as it fitted the dialogic nature of duoethnographic research (Sawyer & Norris, 2012).

Some authors write their duoethnographies from a third-person perspective and only quote their discussions. Others use screenplay format, with sections of dialogue to support their understandings. We have followed a novel approach, namely to write the remainder of this paper in dialogue format to allow our readers to *listen in* on our conversations so that they can come to their own conclusions.

As we are telling our stories, we opted for non-traditional headings to structure this paper.

3. Once upon a time[2]

Our stories about how our pasts shaped our teaching practices.

Christa: I was raised on a farm with no exposure to formal teaching until Grade 1. I adored Mrs Sarie van der Walt and taught my four younger siblings in the storeroom of my parents' butchery where I copycatted her practice – rewarding good behaviour and punishing bad behaviour. Mr Hoek, my Geography teacher at Ermelo Hoërskool, shaped my idea of being a teacher. So, I also dedicated the first minutes of a lesson to teaching new concepts, and then required of my learners and students to apply the new knowledge while I facilitated learning.

2 Due to the conversational nature of our dialogues, as presented in Sections 2–7, we do not use in-text references. Instead, we use footnotes and add references to the list of references.

Liezel: I also knew from an early stage that I wanted to be a teacher. As the oldest daughter of two passionate Mathematics and Science teachers/academics, I spent many hours at the back of a classroom while they trained teachers in the former South African homelands of Qwaqwa and Gazankulu. Both left the academic world for the business world while I was at primary school, but my mother later re-joined the university. I unofficially assisted her as a tutor during the extra Mathematics classes she presented over weekends for learners from local township schools. I did not receive any formal training in this regard.

Christa: I'm intrigued by the fact that lecturers do not need formal training as educators, especially as my teacher training introduced me to theories about teaching, learning, and assessment, as well as practical teaching experiences, before I was allowed to enter my own classroom. After school, I have obtained a BA(Ed) at the University of Pretoria with Education, Geography and Afrikaans as majors. I did not enjoy my classes as most of my lecturers were *Sages on Stages* – a phenomenon referring to lecturing from podiums without involving students[3] – while I needed to learn from own experience. Therefore, I have enjoyed my Zulu classes the most. Professor Wilson taught us the basics, and then we had to chat on a weekly basis during one-on-one sessions with a native Zulu speaker where we had to apply our new knowledge.

Liezel: Unfortunately, most of my teachers and lecturers were also sages. My only inspiration (except my parents) came from Professor Arlys van Wyk, who was a teacher at the Bloemfontein Onderwyssentrum where I attended an enrichment programme from Grade 6 to 12. She used the most innovative activities to engage learners in the teaching of creative thinking and writing skills. That was the kind of teacher I wanted to be!

After school, I enrolled at the University of the Free State (UFS) where I obtained a BSc degree in 1995 (majoring in Computer Science [CS] and Physics), followed by an Honours degree in CS in 1996. I was appointed as junior lecturer in the Department of Information Technology (IT) at the Central University of Technology, Free State[4] (CUT) and found it quite daunting at first due to a lack of training as educator. Surely, you were better prepared for your first teaching job?

Christa: Theoretically, yes. But I have experienced the well-known practice shock[5] as my degree did not equip me with the skills and techniques to teach effectively. However, I regard myself as better prepared than colleagues with one year teaching diplomas. I furthered my studies when my daughter was identified as a gifted learner by enrolling for a BEd (Gifted Child Education) at Unisa. This landed me a teaching post at Vista University (Welkom Campus) where I taught Education at under- and postgraduate level, Subject Didactics of Afrikaans and Geography, Research Methodology and Statistics. During this time, I obtained my MEd degree (self-concept of the underachieving gifted boy) from Unisa. I resigned when we moved to Gauteng, where I returned to teaching. There I encountered two large changes in education, namely (a) outcome-based education, and (b) a drive towards the continuing professional development (CPD) of teachers.

3 King (1993).

4 Formerly known as the Technikon Free State.

5 Delamarter (2015).

Outcome-based education opened new doors, as I could develop my own lessons, but I despised the groupwork sessions, maybe because I did not know how to facilitate groupwork. During this time, I enrolled for a PhD at the University of Johannesburg under supervision of Professor Duan van der Westhuizen.[6] As my schoolwork suddenly overloaded me, I resigned to complete my research. Duan encouraged me to write an academic paper and a new first love was born, which lead to appointments as postdoctoral fellow and research fellow. During our first meeting, I knew that I could relate to you as we share a passion for teaching and integrating technologies in our practices to improve teaching and learning.

Liezel: For me, it was quite tricky to teach without formal training as educator. Although CUT provided detailed manuals on compiling and marking assessment tasks, they provided no guidance on teaching. I devised my own teaching philosophy on the fly with my own experiences as a university student as a point of reference. Similar to your experiences, most of my lecturers also read from scripts, while we took notes. It was not effective – especially in the case of practical modules. I recall a specific informal discussion I had with my mother in early 1997, during which she encouraged me to diarise my teaching experiences. In hindsight, I regret not taking this journaling exercise more seriously at the time. However, the intermittent diary entries I did make put me on the path of reflecting on what I was doing in the classroom.

Another pivotal point in my career came in 2000 when I was selected to attend a series of training sessions in preparation for the CUT's envisioned transition to online learning. The opportunities provided by Web 1.0 technologies for teaching IT subjects fascinated me. I was specifically interested in how these technologies could be incorporated to enhance not only my own teaching experiences but also the learning experiences of my students in a contact environment. Consequently, I became actively involved in research on teaching and learning, and registered for a PhD in Higher Education Studies at the UFS in 2003, shortly before being appointed as lecturer in the Department of Computer Science and Informatics (CSI) at the UFS.

My PhD research comprised an action inquiry aimed at establishing guidelines for creating meaningful blended learning experiences in a South African higher education classroom at undergraduate level. The goal was to find the ideal blend between online and face-to-face modes of delivery. My final set of proposed guidelines[7] dealt with aspects such as cultural diversity, student attitudes, academic dishonesty, communication, and interaction, as well as assessment in large classrooms. The long-term goal of this ongoing action inquiry – with more than 20 completed cycles to date – is not only to advance my own practice, but also to expand the use of applicable teaching and learning strategies within the CS discipline. The focus remains on finding an ideal blend, and not on an abrupt switch to online learning. Consequently, I started using a flipped classroom approach[8] for one of my undergraduate modules in 2013.

6 I learned recently that he had passed away in November 2020; therefore, I dedicate this research to him.
7 Nel (2005).
8 Bergmann and Sams (2012).

Christa: I also flipped my classrooms and followed a blended approach to teaching. By using technologies, I could bring experiences to my learners which I took for granted (such as being able to view the earth from an aeroplane). Sharing the videos I took helped learners to understand aerial photographs and mapwork better. Without any formal training, you have identified the best approaches to learning. However, I am not surprised; it proves my research findings, namely that teachers learn on the job to improve their practices.

4. Prince Charming

An imagination of alternative futures and possibilities for ourselves, our teaching practices, and the world around us.

Christa: Coming from a school education background, I needed to facilitate learning when I took over as lecturer of a postgraduate module in distance education mid-year 2014. By then, half of the class have dropped out, many failed the first two assignments, and some submitted only the compulsory assignment. I invited the students via email and SMSs to join Arend[9] where I wanted to facilitate learning. However, only one student asked a question, and nobody replied. In September of that year, the module was earmarked for e-portfolios, which would require an abrupt switch to online learning.

I was thrilled to spearhead this alternative method for assessment as I embrace new technologies. However, I also realised that it would require an almost impossible learning curve as some of my students still submitted written assignments via the postal system.[10] Therefore, I required of the 2015-class to use Arend to establish cooperative base groups (CBGs). This technique requires of small groups of students to take up three tasks, namely to assist one another during the completion of assignments, to motivate one another to submit their assignments, and to assist one another on a personal level as well.[11]

When I left Unisa, midyear of 2015 (after completion of my post-doctoral fellowship), a new lecturer took over and instructed the class no longer to use Arend. It left the weaker students suddenly without their support system, so they contacted one of the top students for assistance. As it was no longer a requirement so support others, she created a WhatsApp group, and added them and me, to the group as I have designed their learning tasks. It provided an opportunity to investigate my own practice. Since ethical clearance was already granted, I used this MLE to facilitate cooperative learning. Instead of providing answers, I rather asked: "Do you agree?" or "Who can assist?" to encourage them to take the responsibility for their own learning.

Liezel: I understand the need to use technologies to facilitate learning when my students cannot attend classes. Therefore, I also needed an MLE for my students when it became apparent in 2020 that the second-semester modules would have to be offered online as a result of the COVID-19 pandemic. I was desperately looking for a way to replicate the face-to-face component of the module where I have

9 A social networking site developed for research purposes to support teacher learning. Unfortunately, I have closed it down due to the costs of keeping it in the Cloud.

10 Van Staden (2016).

11 Van Staden (2019).

traditionally flipped the classroom. Following the numerous discussions we had regarding your experiences with WhatsApp, I was inspired to integrate a WhatsApp-based MLE during emergency remote education where I could present the weekly contact sessions.

The CSIS1664 module (Introduction to the internet and web page development), is a compulsory first-year module for all students enrolled for the BSc (IT) degree at UFS. This module aims at providing students with basic knowledge on the working of the internet as well as the creation of static websites.

As I flip the classroom, students must watch a series of short videos as part of their preparation for the face-to-face contact sessions. Under normal circumstances, I dedicate the first few minutes of each contact session to answering questions and addressing misconceptions regarding the content. For the remainder of the session, students work in groups to complete tasks collaboratively, as this had proven to be successful during contact sessions. This approach to teaching is based on students' inputs over the years; therefore, it had to be incorporated in some way during transition of the CSIS1664 learning process and experience[12] to online learning.

As the collaborative group activities were central to face-to-face sessions, I wanted to continue with this, but the students were not allowed on campus during emergency remote education.[13] Therefore, I created multiple MLEs for my students.

The main MLE was used to facilitate the session, answer content-related questions, and share details regarding the class activities. I also created small MLEs for groupwork. The 77 students were randomly allocated to nine smaller groups (consisting of no more than nine students per group), with an MLE for each of the groups. In these small groups, students were required to discuss course content, post answers to the class activities, and learn from one another.

Before the pandemic, I allocated six students to a group, as this was the maximum number of students who could easily work together, given the fixed seating arrangements in the lecture venue. If the majority of a group's members failed to show up for a session, I could ask students to join a different group for that day's collaborative activity. As such a quick switch would not be possible in an online environment, I decided to increase the maximum group size slightly to nine; thereby increasing the likelihood that the majority of each group's members would be present during a session.

Christa: Interesting! I have also increased the size of my groups. CBG-groups are normally very small, two or three students maximum. But I have created larger groups (seven members) as I assumed that it would be problematic if one or more members of such a small CBG drop out. I have noticed that our practices differ in important ways: distance versus a contact education context, postgraduate versus first-year students, and a year module versus a semester module.

12 Nel (2017).

13 We prefer the term 'emergency remote education' as it includes learning, assessment, and all aspects related to teaching.

Liezel: That is true, but I have also identified similarities. Both modules were compulsory, and both offered themselves for practical application. Also, in both our contexts, student success could have been impacted negatively by abrupt switches to online learning.

5. The Magic Kingdom

Developing a sense of hope and possibilities for the future.

Christa: Being a distance education student previously, I envisioned that postgraduate students would need assistance after hours as they juggled work and studies. An MLE could afford me to keep my finger on the pulse while facilitating learning.

Liezel: I was nervous about the idea of using WhatsApp as my colleagues reported that some of their students posted inappropriate and even offensive messages during late hours when lecturers went to bed. Silencing notifications would not solve the problem; therefore, I locked the main group and opened it for limited periods of time – such as Mondays until 20:00 – to allow for questions following the MLE sessions. As the semester progressed, I kept the main group open for longer periods, but locked it over weekends. During weekends, students could contact me via email. I never locked the small groups and never encountered inappropriate messages in my groups. In retrospect, I am wondering if participation in the MLE would have been better if I had not locked the group.

Christa: I did not even give that a thought! Maybe because using MLEs was still a novel idea in distance education at the time? But the students did not post offending messages even though the groups were available 24/7/365. One student complained once about irrelevant videos and jokes as mobile data was expensive and he was jobless. The peers understood and did not share jokes again.

Liezel: Coming from contact education, I followed a different approach. I had to meet the students as a group (as dictated by the university timetable). Therefore I required of them to meet me in the main MLE once a week during the time slots allocated to CSIS1664. I also expected from them to be present (online) during this time slot, as they would have been under normal circumstances.

Christa: It makes sense. You did not know when you would return to face-to-face education, and then it would be easy to return to contact education. I found the MLE useful, as I could correct a mistake made in the study material. If one of the students did not ask a question about it, I would not have known about it.

The MLE provided a learning space, as many students were overwhelmed by the switch to e-portfolios. It also reduced my workload. I was not overloaded with similar emails, as the problems were solved in the MLE. It helped me to understand how quickly postgraduate students stress, and that they need constant assurance that they are on the right track. I also found that the MLE provided them with ample opportunities to learn from their peers.

Liezel: I had a similar experience when a student posted on WhatsApp that he experienced trouble accessing a certain section of the course material on the Blackboard learning management system (LMS). I quickly corrected the mistake I had made and could immediately inform all students on the WhatsApp group.

The way in which I utilised the smaller groups during each session also provided my first-year students with opportunities to learn from their peers. After posting the details of a class activity in the main group, the students had to complete the activity on their own and share their answers in the smaller groups. For this purpose, the students typed text responses or uploaded photos of the answers they either wrote on paper or typed on their computers. I also encouraged the students to point out mistakes or errors in the answers of their group members so that they could learn from one another. These cooperative learning activities replaced the collaborative activities I had previously used during the face-to-face component of my flipped classroom approach.

Christa: I found CBGs an effective technique as the students motivated and supported one another, which had a positive impact on student success. Many students wrote that they considered dropping out, but they did not, as they were supported by their peers. One student considered suicide due to the stress levels, but his fellow students supported him through this difficult time. He lived in a rural area, was jobless, and did not have access to electricity, the internet, or a computer. His peers motivated and supported him until he submitted successfully, and they celebrated his pass[14] more than their own!

Liezel: Wow, what an inspiring story! This is an excellent example of how cooperation in an MLE was used to establish an inclusive learning environment.[15] I also noted that your students developed a sense of community that supported both their academic and social needs. They felt comfortable because of their respect for and connectedness with one another.

From my experience, students (who were used to contact education) placed more value on cooperative learning in a face-to-face environment. Although I did find evidence in some of the groups that students used the MLE to help one another to correct mistakes and successfully submit the activities, this only happened in groups where most of the members were present during the scheduled time slot. I also found it much more difficult to assess the development of cooperative learning skills in the MLE (when compared to contact education).

Christa: Me too! But what was my alternative? The students did not attend classes. As already mentioned, the MLE had a positive impact on student success. When compared, the group of active students performed better on average than the group of inactive students. It was also interesting to note that ten of the eleven students who passed with distinction were active in the MLEs.[16] One of the distinction candidates who did not want to join the MLE dropped out. When asked why, she told me that the weaker students asked “stupid” questions. I cannot help but to wonder if she would have been successful if she had experienced their support when she considered dropping out.

14 Sadly, he was killed during a raid of the police station where he worked in order to be able to look after his mother.

15 Wlodkowski and Ginsberg (2010).

16 Van Staden (2018).

Liezel: I had a similar experience with my students. The distinction students had an average participation rate of 74.5%, while the few students who failed only participated (on average) in 21.9% of the learning activities. Interestingly, those students who participated in 100% of the learning activities all passed the module with a distinction, which illustrates the importance of active participation in MLEs during emergency remote education.

6. A storm is brewing

The magic kingdom also posed many frustrations.

Christa: Although the MLE was effective, I had to find ways to overcome difficulties due to limited functions. One of the biggest limitations of WhatsApp is that messages cannot be edited. Although the reply function could be used to correct typing errors, it was not desirable, as it created chaos during discussions. Another limitation was the one-hour time limit to delete messages. I do not understand why WhatsApp does not allow users to delete messages.

Liezel: Both the issues frustrated me as well. My biggest frustration was that students posted irrelevant messages (e.g. "*When is the next assignment due?*") while I was busy explaining a concept in the main group, thereby 'interrupting' my carefully planned sequence of information sharing. I partially solved the problem by closing comments for a while and then re-opening it at the end of my explanations.

Christa: I have also experienced that. I did not create the WhatsApp group, so I could not close discussions. Another frustration was that I could not hide my personal contact details. I used a second smartphone, but it was inconvenient to carry two phones with me. The limited size of documents and media (100 megabytes) was also frustrating, as larger files had to be shared via WeTransfer, which was problematic for the technologically disadvantaged students, as they had to use a variety of technologies to get access to information.

Liezel: I could use the LMS for sharing large documents. The lack of statistics on student participation and/or attendance frustrated me. I had no idea if the students who did not participate in the group discussions understood the work or were experiencing problems. Since some students never posted anything, I also had no idea which students were actually 'present' in the MLE during the scheduled sessions. Consequently, I started each session by asking students to post a single emoji to indicate how they were feeling at that moment. Afterwards, I could use these responses to compile a more accurate attendance register.

Christa: WhatsApp is no longer the only popular IMA within the South African context, as many South Africans have switched to Signal and Telegram since we used WhatsApp. As WhatsApp frustrated us, I conducted a comparative study and found Telegram a better platform for creating MLEs.[17]

17 Van Staden (2022).

7. A reality check

Learning from our new ideas about teaching in two disparate educational contexts.

Liezel: Based on our experiences, I believe South African educators and students are not yet ready for an abrupt switch to online learning.

Christa: I agree. Too many students reside in rural areas where access to electricity, computers and the internet is limited. On top of that, all students (and lecturers) must plan online activities around severe levels of loadshedding schedules enforced by the national electricity provider, Eskom.

Liezel: For me, emergency remote education actually highlighted many of the pre-pandemic challenges experienced by our students. Unfortunately, these challenges are still a reality in the post-pandemic world and should be taken into consideration when planning our future teaching and learning practices.

Five years after your switch to online learning, my students still had to deal with restricted electricity supply due to regular loadshedding. Currently, the impact of loadshedding is even more severe than during the pandemic.

In both of our online learning experiences we had to deal with students who lived in rural areas – as some of mine were forced to move back to their rural family homes because of the pandemic. In 2023, many of the students who stay off-campus can still only get reliable access to the internet and computers while they are on campus during weekdays. After hours or in the event of disruptions or protests (which often prevent students from accessing the campus) they are again deprived of free access to crucial educational resources. With disruptions and protests now becoming an annual occurrence, MLEs still remain a viable alternative to create low-cost online learning environments. I am also worried about the impact of the disparities in the South African school system which causes many first-year students to lack basic digital literacy skills. This already has a negative impact on attempts at blended learning.

Christa: I agree, it can also hamper transitions to online learning. What frustrated you the most during the sudden switch to online learning?

Liezel: One of my biggest frustrations was that the students did not take responsibility for their own learning, which had a negative impact on success rates. The majority of the first years had a long way to go before they could be regarded as self-directed learners. They lacked time management skills and were unable to divide study time equally between all modules. I believe the unfamiliar emergency remote education learning environment played a significant role.

Christa: That is something that needs to be addressed at school level. Even at postgraduate level, many of my students lacked self-directed learning skills. They wanted to be spoon-fed!

Liezel: Another frustration was that I struggled to find a balance between working from home and attending to the needs of my family. Many students regarded me (their lecturer) as the only resource at their disposal to assist them in reaching their goals – possibly due to a lack of confidence to ask peers for assistance in the WhatsApp

groups. Many students also started with assignments the night before the due date. In one instance, a student sent an email asking for clarification the night before the assignment was due. I had to assist him via emails as it was too late for a discussion on the WhatsApp groups. Therefore, I recommend that lecturers (especially at undergraduate level) must make conscious efforts to empower students to take control of and responsibility for their own learning experiences as these skills are important in the work environment as well.

Christa: Some of my students also followed the easy road: contacting me for assistance. I even had to explain via a telephonic conversation how to drag-and-drop a file, although the student could have watched instructional videos on YouTube. I constantly reminded the students about upcoming assignments when they did not discuss them in the MLE, as I knew they would not be able to submit in time if they had not started yet. The night that the e-portfolios were due, I went to bed by 22:00 as the students were quiet. Minutes before midnight, one of the weaker students phoned me:

Please help! I can't submit my e-portfolio. The others had gone to bed.

I assisted him to submit successfully, but this could have been prevented if he did not wait until the deadline to submit. As self-directed learning skills are regarded as an important employability skill, we must develop these skills, even at postgraduate level. Different from your findings, my students relied heavily on one another. Therefore, I can recommend CBGs as technique to develop cooperative learning skills.

Liezel: Another factor to keep in mind is a lack of statistics. I was suddenly left in the dark regarding student involvement. The MLE did not provide any statistics regarding student participation. I did not know if posts were read when students did not participate. Even Blackboard (the LMS) did not provide detailed statistics for individual students, such as if all content had been accessed, if announcements had been read, or if a student had stopped accessing the material. It is extremely time-consuming to collect the data myself – especially when dealing with a large group of students. Therefore, I recommend that LMSs and IMAs provide better statistics to enable lecturers to make conscious efforts to identify and contact at-risk students as early as possible.

Christa: I second your recommendation. MyUnisa (the LMS at Unisa) also provided limited statistics. As I measure my own success against the success of my students, I need to contact those at risk before they fail or drop out. If they failed to ask questions in the MLE, I would not know that they did not understand the learning tasks. I found that my students seldom checked their institutional email accounts; yet it was the only email address I could use to reach out to them. Another problem is that they switched contact numbers during discussions, which made it difficult to identify students.

Liezel: I think it is a universal problem, regardless of the mode of teaching. I have monitored and recorded participation in the MLE and knew exactly (on a weekly basis) which students were not participating. However, it was impossible to determine why they were absent if they did not respond to emails I sent to their student email accounts.

> Although I did have alternative contact details, I was uncomfortable phoning missing students, as I did not want to intrude on their private lives. However, I believe that I should be able to contact the students as I do discuss problems with them in face-to-face education; therefore, I second your recommendation that students – especially those at risk – be contacted.

8. Light at the end of the tunnel

Whereto from here?

We have used WhatsApp to develop MLEs during abrupt switches to online learning. This was the only way (at the time) to provide our students with equal learning opportunities. As IMAs are the preferred communication channel for many South African students, we plan to integrate the valuable lessons we have learned into our future educational endeavours. As WhatsApp's limited functionalities frustrated us, we plan to investigate the usability of Telegram in future research.

We hope that our readers found this paper insightful. To us, this research provided an outlet during a time when face-to-face contact with colleagues was prohibited. Under normal circumstances, we would have had such conversations over a cup of coffee in the staffroom during the lunch break. Duoethnography allowed us to share experiences, discuss frustrations, ask for advice, and get numerous ideas based on our experiences in similar, but also very different learning contexts. We also picked up on key aspects that we did not necessarily regard as vital or problematic during our original verbal conversations.

Curerre, our theoretical framework, provided us with ample opportunities to reflect in depth on our teaching experiences, to identify sections of our pedagogies that can be improved, and to formulate strategies to be incorporated in a post-pandemic future. Through these reflections, we (re-)discovered some of the theoretical underpinnings of our teaching philosophies and practices, and we have developed a better understanding of how our future practices can be improved. We realised how our past experiences instilled a strong social justice orientation within us. As academics from a developing country, we remain dedicated to enhancing our students' learning experiences, regardless of their diverse backgrounds, experiences, viewpoints, and unequal access to online learning experiences.

Statements on ethics and conflict of interest

Ethical clearance for this project was granted by the General/Human Research Ethics Committee of the University of the Free State (Ethical clearance number: UFS-HSD2020/1505/261).

To the knowledge of the authors, the information and experiences portrayed in this paper do not present any conflict of interest.

References

Bergmann, J. & Sams, A. 2012. *Flip your classroom: Reach every student in every class every day*. Eugene, OR: International Society for Technology in Education.

Bouhnik, D. & Deshen, M. 2014. WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research*, 13: 217-231. Available at https://doi.org/10.28945/2051 [Accessed on 28 March 2023].

Breault, R.A. 2014. Emerging issues in duoethnography. *International Journal of Qualitative Studies in Education,* 29(6): 777-794. Available at https://doi.org/10.1080/09518398.2016.1162866 [Accessed on 28 March 2023].

Delamarter, J. 2015. Avoiding practice shock: Using teacher movies to realign pre-service teachers' expectations of teaching. *Australian Journal of Teacher Education*, 40(2). Available at https://dx.doi.org/10.14221/ajte.2015v40n2.1 [Accessed on 28 March 2023].

Green, L.M. 2008. Duoethnography. In: L.M. Green (Ed.). *The SAGE Encyclopedia of Qualitative Research Methods*. Thousand Oaks: SAGE.

Güler, C. 2017. Use of WhatsApp in higher education: What's up with assessing peers anonymously? *Journal of Educational Computing Research*, 55(2): 272-289. Available at https://doi.org/10.1177/0735633116667359 [Accessed on 28 March 2023].

Jabbar, J., Malik, S.I., AlFarsi, G. & Tawafak, R.M. 2021. The Impact of WhatsApp on employees in higher education. In: M. Al-Emran, L. Shaalan & A.E. Hassanien (Eds.). *Recent advances in intelligent systems and smart applications*. New York: Springer. https://doi.org/10.1007/978-3-030-47411-9_34

King, A. 1993. Sage on the stage to guide on the side. *College Teaching*, 41(1): 30-35. Available at https://doi.org/10.1080/87567555.1993.9926781 [Accessed on 28 March 2023].

Krammer, D. & Mangiardi, R. 2016. The hidden curriculum of schooling: A duoethnographic exploration of what schools teach us about schooling. In: D. Lund, R.D. Sawyer & J. Norris (Eds.). *Duoethnography: Dialogic methods for social, health, and educational research*. New York: Routledge.

Mead, G. 2014. Storytelling. In: D. Coghlan & M. Brydon-Miller (Eds.). *The SAGE Encyclopedia of Action Research*. Los Angeles: SAGE.

Misaghi, M., Tonioti, E., Batiz, E.C. & Dos Santos, A.J. 2021. WhatsApp as tool for integration and motivation in distance education. *Social Networking,* 10(3): 29-43. Available at https://doi.org/10.4236/sn.2021.103003 [Accessed on 28 March 2023].

Nel, E. 2005. Creating meaningful blended learning experiences in a South African higher education classroom: An action inquiry. Unpublished PhD Thesis. Bloemfontein: University of the Free State. Available at https://scholar.ufs.ac.za/handle/11660/1214 [Accessed 28 March 2023].

Nel, L. 2017. Students as collaborators in creating meaningful learning experiences in technology-enhanced classrooms: An engaged scholarship approach. *British Journal of Educational Technology*, 48(5): 1131-1142. Available at https://doi.org/10.1111/bjet.12549 [Accessed on 28 March 2023].

Norris, J. 2008. Duoethnography. In: L. Given (Ed.). *The SAGE Encyclopedia of qualitative research methods*. Thousand Oaks: SAGE.

Norris, J. & Sawyer, R.D. 2016. Towards a dialogic methodology. In: J. Norris, R.D. Sawyer & D. Lund (Eds.). *Duoethnography: Dialogic methods for social, health, and educational research*. New York: Routledge. https://doi.org/10.4324/9781315430058

Norris, J., Sawyer, R.D. & Lund, D. 2016. *Duoethnography: Dialogic methods for social, health, and educational research*. New York: Routledge. https://doi.org/10.4324/9781315430058

Pinar, W.F. 1975. The method of currere. *Counterpoints,* 2: 19-27.

Sari, F.M. 2018. Undergraduate students' attitudes to the implementation of WhatsApp group as their learning media in the EFL classroom. Paper presented on 17 March 2018 at the 1st International Conference on English Language Teaching and Learning, University of Lampung.

Sawyer, R.D. & Norris, J. 2012. *Duoethnography*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:osobl/9780199757404.001.0001

Sawyer, R.D. & Norris, J. 2013. *Duoethnography: Understanding qualitative research*. Oxford: Oxford University Press.

Sayan, H. 2016. Affecting higher students learning activity by using WhatsApp. *European Journal of Research and Reflection in Educational Sciences*, 4(3): 88-93.

Susilo, A. & Sofiarini, A. 2021. Use of WhatsApp group as learning media in higher education during the COVID-19 pandemic. *Edunesia Jurnal Ilmiah Pendidikan,* 2(2): 40-410. Available at https://doi.org/10.51276/edu.v2i2.139 [Accessed on 28 March 2023].

Van Staden, C.J. 2016. A learning-oriented framework for integrating eportfolios in a post-graduate module in distance education. *The AAEEBL ePortfolio Review (AEPR),* 1(1): 36-55.

Van Staden, C.J. 2018. WhatsApp: Die ontwikkeling van 'n positief-interafhanklike e-praktyknetwerk tydens die samestelling van e-portefeuljes in afstandhoëronderwys. *LitNet Akademies*, 15(2): 350-396.

Van Staden, C.J. 2019. 'n Netwerkperspektief op die gebruik van koöperatiewe basisgroepe as tegniek om samewerking tydens afstandhoëronderwys te bevorder. *LitNet Akademies,* 16(1): 421-472.

Van Staden, C.J. 2022. Telegram, Signal of WhatsApp: Keuse van 'n geskikte toep om mobiele leeromgewings vir Suid-Afrikaanse hoëronderwyskontekste te skep. *LitNet Akademies,* 19(2): 307-345. https://doi.org/10.56273/1995-5928/2022/j19n2d2

Wlodkowski, R.J. & Ginsberg, M.B. 2010. *Teaching intensive and accelerated courses: Instruction that motivates learning*. San Francisco, CA: Jossey-Bass.

Zulkanain, N.A., Miskon, S. & Abdullah, N.S. 2020. An adapted pedagogical framework in utilizing WhatsApp for learning purpose. *Education and Information Technologies*, 25(4): 2811-2822. Available at https://doi.org/10.1007/s10639-019-10096-0 [Accessed on 28 March 2023].