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Exploring the pedagogical affordances of WhatsApp in the mediation of student peer tutoring

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Research Article

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Abstract

Distance education in Malawi has evolved significantly since 1964, culminating in Mzuzu University's introduction of e-learning through Moodle in 2020. However, informal learning through social media platforms such as WhatsApp remains underexplored and unformalised in higher education contexts. This study investigated the affordances of WhatsApp in supporting student-peer tutoring among first-year Bachelor of Education students studying through open, distance, and e-learning (ODeL) at Mzuzu University. Anchored in the Fourth Generation Cultural Historical Activity Theory (CHAT), the study adopted a qualitative design employing ethnographic observation and semi-structured interviews to explore how WhatsApp enables and constrains student-peer tutoring in resource-limited and remote settings. Findings revealed that WhatsApp enhances communication, collaboration, accessibility, affordability, and peer engagement through its user-friendly and low-bandwidth features. It fosters epistemological access to knowledge, promotes cooperative learning, and extends learning beyond formal institutional boundaries. However, challenges such as information overload, lack of assessment tools, message distractions, and limited tutor presence were identified as constraints. Participants suggested solutions including the creation of group rules, teacher engagement, use of hashtags for content organization, and decentralisation of discussion groups to improve learning focus. The study concludes that integrating WhatsApp into instructional design enhances peer interaction and engagement in e-learning environments. It contributes to the understanding of social media's pedagogical potential in higher education, particularly within resource-constrained contexts. The findings have implications for digital transformation in Malawi's education sector and for inclusive access to higher education aligned with Malawi Vision 2063.

Introduction

Distance education in Malawi dates back to 1964, shortly after the country gained independence from the British. Since 1964, distance education in Malawi has undergone technological evolution at all levels of education, including primary, secondary, and tertiary (university) levels. In 2011, Mzuzu University pioneered distance education at the university level in Malawi. Distance education at Mzuzu University predominantly used print technology in its delivery of distance education at its inception. However, other digital technologies were introduced later. Of greater significance was the introduction of e-learning in 2020 using Moodle as the learning management system. Other social media technologies, such as WhatsApp, have not been formalised as tools of teaching and learning despite being used by students and teachers in the learning/teaching processes. This study aims to explore the affordances of WhatsApp, a form of social media, in supporting student-peer tutoring.

The roles of a tutor

Assuming that tutors already possess the knowledge and skills they may need to effectively facilitate students' learning both in terms of disciplinary knowledge and tutoring expertise (Underhill and

McDonald, 2010) might be incorrect. Tutoring roles and strategies vary depending on the situation or context. This is especially important to acknowledge in the current era of e-learning, where e-learning technologies are continuously advancing (Goold et al., 2010). Recently, we have seen a surge in social media usage and applications across all areas of human life. One such area is human learning, particularly mobile learning. Social media on mobile devices has accelerated mobile learning. An example of social media on mobile devices that has sped up mobile learning is WhatsApp. Recently, WhatsApp has become more of an enabler than a constraint for mobile learning (Ramble & Bere, 2013; Ramble et al, 2020; Okai-Ugbaje, 2022). WhatsApp plays a scaffolding role in the teaching and learning process. Referring to Vygotsky's work, scaffolding refers to the temporary support provided by teachers, more expert friends, tutors, or computers to help students solve problems or perform tasks that they cannot accomplish on their own (Gayatri, 2022). Njuguna and Joyce (2022) found that instructional scaffolding is the process of supporting students to enhance learning. This aligns with Vygotsky's Zone of Proximal Development (ZPD), which is the difference between a learner's current developmental level as determined by independent problem-solving and their potential development as identified through problem-solving under guidance or in collaboration with more capable peers (Vygotsky, 1978, p. 86). WhatsApp facilitates student-peer tutoring by enabling peer collaboration. Therefore, a tutor can be anyone who helps someone learn, whether through formal or informal arrangements.

Peer tutoring in higher education

Globally there has been an increasing trend in peer tutoring in higher education institutions due to open admission, equity and inclusion policies and that has resulted in increased participation in higher education by 'non-traditional and often under-prepared students. The inclusion policy has also resulted in increased student population in higher education institutions resulting in increased workloads for lecturers (Chibambo & Jere, 2019). The increased lecturer workload in universities has pushed higher education institutions to hiring tutors or adjunct staff most of whom are not adequately prepared to do the tutoring work. This fear of underprepared tutors or adjunct staff has forced lecturers to play the tutoring roles alone. The lecturers are leveraging the technological affordances such as social media, WhatsApp in the case of this study to easily access remote students regardless of their geographical locations.

WhatsApp as a tutoring tool

Although it is unclear how WhatsApp is used by lecturers and students as a teaching/learning tool, what is certain is that WhatsApp is used to mediate teaching and learning between lecturers and students. In this case, lecturers play tutoring roles though they might not be sure how the tutoring is done. Studies show that WhatsApp enhances communication between tutors and students by enabling both synchronous and asynchronous interaction, thus extending learning support beyond place constraints (Bouhnik & Deshen, 2014; Bere, 2018). This accessibility fosters immediacy and continuity in tutoring relationships, allowing tutors to respond quickly to learners' questions and challenges. Pedagogically,

WhatsApp facilitates collaboration, scaffolding, and peer-to-peer learning through group discussions, sharing of resources, and feedback exchanges (Rambe & Bere, 2013; Alabdulkareem, 2015). These affordances align with constructivist and connectivist learning theories which emphasise social interaction and knowledge co-construction within social networks. The tutor's role, however, remains critical through active moderation, prompt feedback, and establishment of clear communication norms essential in maintaining academic focus (Barhoumi, 2015). Despite its benefits, challenges persist, including message overload, distractions, privacy concerns, unequal access to devices or data, and increased tutor workload (Church & de Oliveira, 2013).

Student peer-tutoring in an ODeL higher education context

This study looks at students as peers and how students as peers support each other learn through the use of social media (WhatsApp). Students as peers are being considered as "equals". Equals in this regard literally means equality in knowledge and skills. Despite the equality as in "equals", there is an acknowledgment of the more knowledgeable or skilled others. This study builds on this understanding of the "more knowledgeable and skilled others" as a resource for the learning of their peers. It is believed that learning from a peer is usually comfortable as the learning environment itself is less hostile (Rahmian, 2020). Nevertheless, caution needs to be exercised as Medaille &Usinger (2020) acknowledge the existence of the quiet students who may not contribute in a group learning environment.

Research purpose and significance

The study sought to examine the affordances of social media 'WhatsApp' in student-peer tutoring in open, distance, and e-learning (ODeL) contexts in resource-limited and remote contexts. This study focused on Bachelor of Education students in level one studying through open, distance, and e-learning modes, where e-learning was a major mode of teaching and learning. The study used an educational foundation course in level one as a research group, together with their lecturer.

The study specifically sought to address the research question "How does WhatsApp, as a form of social media, enable and constrain student-peer tutoring in open, distance, and e-learning in resource-limited and remote contexts?" Specifically, this research question was addressed through the four specific research questions as follows;

1. How does WhatsApp enable student-peer tutoring?
2. How does WhatsApp compare with Moodle as a student-peer tutoring platform?
3. What challenges does WhatsApp pose as a student-peer tutoring platform?
4. How would the WhatsApp challenges be resolved for a successful student-peer tutoring experience?

Problem statement

Although social media usage for teaching and learning purposes is not formalised in universities, the global as well as local trends indicate massive usage of social media in a variety of activities, such as business and social life. However, despite this wide usage of social media in these other avenues of life, its usage in educational settings remains unacknowledged and informalised.

Justification of the study

In broader terms, the study will have a significant impact on digital transformations in the education sector and the economic development of Malawi and other least-developed countries. The outcomes of this study will further contribute to the body of knowledge on the affordances of social media in educational practice in general and higher education in particular. It will also inform policymakers, educators, students, and researchers to consider transformations in the delivery of education, particularly in open and distance learning spaces in the digital era.

Theoretical framework

This study is anchored in the fourth generation of Cultural Historical Activity Theory (CHAT). CHAT has so far evolved over four generations from mediated action to a collective activity system, to multiple-interconnected activity systems, and most recently to heterogeneous work coalitions aimed at resolving wicked societal problems (Engeström & Sannino, 2021). Globally, several crises have been experienced, such as COVID-19, which negatively impacted the education system such including universities. The major impact was the closure of universities following recommendations from governments (von Keyserlingk, et.al, 2022; UNICEF, 2020).

Why is the Fourth Generation of CHAT a better theoretical model for the study compared to its earlier generations?

The first three generations had limitations that regarded activity systems as bounded and assumed the absence of external influences in their functions (Engeström & Sannino, 2021). The fourth generation Activity Theory blurs the fixed boundaries, constraints, and structures of activity systems where a significant number of activities are loosely synchronised, interconnected, and combined (Forsgren, 2018; Saenz, 2019 & Yamazuni, 2020). The fourth generation of Activity Theory expands the units of analysis of the first three generations to overcome their inner contradictions. Figure 1 below illustrates the fourth-generation Activity Theory.

The Fourth Generation Activity Theory (4GAT) is a model that examines how activity networks interact and contradict each other. It has its guiding principles, which are as follows;

1. Multiple perspectives: The object of the activity is usually made up of multiple contexts or perspectives
2. Temporary collaborations: Collaborations between actors are temporary, with multiple boundary crossings between interrelated activities

3. Interactions across activity systems: Interactions take place across activity systems functioning in networks rather than the workings of individual activity systems
4. Heterogeneous work coalitions: There are heterogeneous work coalitions that aim to resolve critical societal problems known as complex runaway objects with broader societal ramifications, such as climate change, and create sustainable alternatives to traditional practices
5. Formative interventions that aim to find new possibilities and potentials.

Anchoring social media (WhatsApp) student-peer tutoring in the fourth generation Activity Theory

Globally, there have been disruptions to teaching and learning due to several factors, both man-made and natural. Despite the disruptions, students continued engaging each other in the form of updating each other on communications from schools or universities. Some communications went beyond mere updates to supporting one another on academic matters. However, the absence of formalisation of the usage of social media in teaching and learning resulted in such learning support matters going unnoticed or ignored. The reasons for ignoring or not supporting the social media-supported learning are due to the fact that educators felt insecure as their authority over ownership or custody of knowledge was challenged (Iversen & Pedersen, 2017). The availability of knowledge in social media has unbounded or removed the boundaries in terms of accessibility to knowledge. The teachers were no longer in control in terms of accessibility to powerful knowledge due to the presence of such sites, where powerful knowledge can easily be accessed by students. Social media, in this case, is a challenge to educators. It is like a wild global phenomenon that requires the use of the fourth generation of Activity Theory to be comprehended. Preparing students for becoming 21st-century knowledge workers, then, entails preparing them for an unknown future (Iversen & Pedersen, 2017).

Learning through social media such as WhatsApp seems disorderly, chaotic, casual, or disorganized. In this case, a tool is being blamed for promoting chaos, for disrupting learning. However, real learning happens in chaotic and disorderly situations. My approach to learning or teaching, or pedagogy, may seem revolutionary, but it challenges the traditional approaches to teaching and learning where curriculum is prescriptive, pedagogy is rigid, and knowledge domains are compartmentalized or framed.

The Fourth Generation Activity Theory (4GAT) views human activities, such as learning through social media, not as a system but rather as a network of events in which the events are not orderly, purposeful, or guided by specific principles. What counts in an educational setting is learning. Viewing the Fourth Generation of Activity Theory as a network rather than a system has enormous benefits to the individual learner. It extends the potentialities of the individual learner beyond self (Dron, 2014) and enables the individual learner to cross social boundaries and expansively grow intellectually (Engeström & Sannino, 2021).

Research design and methodology

Research design and methodology

The study used a qualitative research design employing two research methods, namely the ethnographic method and semi-structured interviews. The ethnographic approach was conducted using the social media tool, WhatsApp. I used the already existing students' WhatsApp group created by the course lecturer, referred to as a course facilitator in this study, to encourage students to teach one another and learn from one another. In the WhatsApp group, I was a participant observer. As a participant observer, my role involved taking part in and contributing to the discussions as well as observing how the discussions unfolded. My focus during the ethnographic phase of this study was the pedagogical aspects of student engagement in the e-learning processes through WhatsApp. The course facilitator’s role was to monitor and moderate the discussions, which formed a major pedagogical approach of student peer tutoring.

The second stage of data collection was through semi-structured interviews. The semi-Structured interviews were conducted with student participants. The student participants with a high frequency of contributions and reactions in the WhatsApp group, without necessarily considering the qualitative aspects of the contributions, were purposively sampled. The students were interviewed about their experiences in peer tutoring using the WhatsApp platform. The data from the students’ semi-structured interviews complemented the ethnographic data collected during the first phase (ethnographic phase) of data collection. The data from both phases of the data collection were thematically analysed based on issues that emerged frequently from the researcher's observations as well as student semi-structured interviews.

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Justification of the research design

The educational foundation course at the level was selected because it is among the courses that come earlier in the teacher education training in general in Malawi and at Mzuzu University in particular. Teaching education foundations course earlier in the professional training programme would equip future teachers earlier enough with knowledge and skills for the teaching profession. Additionally, teacher training through e-learning, a form of distance education, imparts self-directed or self-regulated learning skills to student teachers earlier in an e-learning environment. The education foundations course has also been chosen because the researcher has knowledge in education foundations, which enables him to follow and understand the group conversations.

Ethical issues in the study

In terms of ethical issues, the researcher sought the approval of the lecturer responsible for

a particular foundations course and the Research Ethics Committee of the European Scientific

Institute (ESI). The researcher also sought consent from the research participants (students and

the course facilitator). The research participants were free to discontinue the research activity.

anytime without any sanctions against them.

Study findings and discussion

Foregrounding the study in the literature in the field of pedagogy and responding to the first question of the study, *how WhatsApp enabled student-peer tutoring*, the study reveals four affordances of WhatsApp in supporting student peer tutoring, thematically presented as communication, accessibility, collaboration, affordability, usability, reliability, and connectivity tolerance.

Affordances of WhatsApp in supporting student peer tutoring

Communication

WhatsApp was a quick tool for organising and communicating ideas (Student 1). Urien et.al (2019) concur by arguing that WhatsApp is a vital communication tool in team activities. Compared to the traditional practice of face-to-face group discussions, which is usually done by students in supporting one another

in sharing ideas, WhatsApp enabled a quicker and convenient means of student communication, enabling quicker sharing of updates with each other. *Through WhatsApp, we could follow all updates made by lecturers and class representatives concerning our course. It was an easy way for course facilitators to follow up on students, for example, those who had not submitted their assignments, or had missing grades, or those having ICT-related problems (student 2). WhatsApp is better for quick communication, "prompts" or "emergencies" (Student 9)*

It enabled my learning in such a way that I was able to be up to date with the various developments that arose in my education. For instance, I could know when and where to submit the assignments, and also ask our course facilitator where I didn't understand during the course facilitation (student 4). What comes clearly here is that, besides administrative updates from the course facilitator to the class, making a core communication role of WhatsApp, WhatsApp also enhanced student peer tutoring, supplementing what the course facilitator taught on the e-learning platform (Moodle).

Connectivity tolerance

Unlike the standard learning management systems, WhatsApp has connectivity tolerance capabilities as it permits connectivity with low bandwidth (Church & de Oliveira, 2013). *Information sharing through WhatsApp does not need a strong internet connection, which is helpful in areas with poor internet connections, like my home (st.1).* This is a testimony that WhatsApp is a handy learning tool in remote areas where internet connectivity is a challenge. Bandwidth issues have been a challenge to e-learning implementation in higher education institutions in the developing context, like Malawi, for example, the study by Perkins, Gwayi, Zozie & Lockee (2005) and (Kalima 2011, 2023; Msukwa, 2015; Kumwenda & Kumwenda, 2023), who, besides bandwidth challenges, revealed ICT infrastructural challenges and electricity supply as barriers to e-learning implementation.

Familiarity with the tool

WhatsApp, being a space where students are mostly found and used to, makes it an environment that they are used to and comfortable working with. For example, one of the students remarked, *Students are mostly on WhatsApp than on Moodle, hence if WhatsApp is used, it can be very beneficial to our learning (st.3). Most students are more familiar with WhatsApp than Moodle (St 4).* Going further, one of the remarks by the students suggests that for one to successfully learn through Moodle, it requires a greater effort by the students and the institution to master it before using it. This still points to the issue of tool familiarity as critical to be used as a learning tool. *Moodle requires more orientation for us students before using it (Student 3).*

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Collaboration

Another pedagogical principle that is highly valued even in traditional learning spaces is cooperative learning, which is also called team learning. WhatsApp, in the modern technological landscape, has been very popular in enabling team creation. WhatsApp, in the e-learning context, with its group creation capabilities, has been an asset to teaching and learning (Worley & Naresh, 2014). *We could at least interact with fellow students on WhatsApp rather than on Moodle (Student 3). Additionally, it facilitated the exchange of ideas with fellow students, bridging geographical distances and enabling us to interact and learn from each other in real-time (student 4).* This gives us another perspective on viewing peer tutoring as an activity where students engage one another as both learners and teachers of each other (Clarence, 2016), where they develop, prosper, and grow together as partners academically. The presence of the course facilitator and the researcher further widens the partnership, enriching further the students' growth opportunities.

Furthermore, it enriched my knowledge and provided new insights by exposing me to diverse perspectives from other students, broadening my understanding of the subject matter (Student 5). Student group diversity further enriches the learning community, enabling students to learn not only from one another or from the course facilitator but also learning from what is taught to others. In a diverse class or group of learners, you do not only learn what is directed to you but also what is directed to others (Lakey, 2020). *Moreover, it allowed me to engage with course materials more interactively and engagingly, which helped to increase my motivation and interest (student 3).* Collaboration also aids student motivation, energizing students to hang on and study on even in situations where they would have withdrawn. For example, Borbor Echeverria & Mero Alay (2024) found that group learning promotes student motivation and engagement.

Accessibility

WhatsApp enables epistemological access to powerful knowledge. *WhatsApp allowed me access to valuable information and tools that might have been otherwise unavailable (student 4).* Moosa (2022) argues that despite persisting technological and pedagogical challenges in online teaching and learning, WhatsApp affords epistemological access to knowledge that would otherwise be a challenge in a resource-limited context.

Affordability

It is an affordable platform. I used smaller amounts of data bundles (student 5). The use of WhatsApp makes tutoring peer support affordable to users (Jackson, 2019; Cronje & Van Zyl, 2022). WhatsApp users are generally less privileged individuals, and the WhatsApp platform enables such individuals a platform where they can engage with each other. Despite such engagements being informal and casual, the very same informal, casual spaces afford learning. This is the learning in the informal social spaces, which is highly valued by the learning community despite minimal recognition and acknowledgment by the higher education practitioners, especially teachers.

Comparisons between WhatsApp and Moodle as student-peer tutoring platforms

Usability vs Reliability

The students faced a dilemma regarding platform usability and reliability. Although they found WhatsApp to be a user-friendly platform, they also recognized its weaknesses compared to Moodle, which they viewed as stronger and better. Students felt WhatsApp was easy to use and navigate, unlike Moodle, which they found complicated. *I could easily download documents sent through WhatsApp, but I personally had difficulty downloading them from Moodle (st.5).*

Moodle is a bit complicated, though reliable, as it can keep content intact and able to manage assessments. Moodle has a backup capability. When the system is down, you still get the contents when you log in again (student 6). WhatsApp was not reliable as an LMS due to its inability to manage content as required (student 8).

Sharma (2021) argues that WhatsApp, as a peer tutoring platform, is more user-friendly than the most notable Learning Management Systems. However, Mpungose (2022) indicates that for better peer tutoring outcomes, WhatsApp and Moodle should complement each other.

Interaction with peers, I can interact with my fellow students on WhatsApp, but Moodle, as a learning platform, does not offer this type of interaction (Student 7). In addition to that, Student 8 agrees that *WhatsApp's real-time discussions, group chats, and file-sharing capabilities make it easier to collaborate with peers.*

Efficiency vs Effectiveness

On the issue of assessments, students can receive their grades on Moodle, including assignment grades and end-of-semester exam grades, whereas WhatsApp does not support grade distribution. Moodle's grade book feature allows students to track their assessment progress and view their grades in one place, providing a clear picture of their academic performance. However, due to student user (students

and facilitators) familiarity, WhatsApp seems more effective in performing the administrative roles of the course facilitator in monitoring the tutoring process. One of such administrative roles is communication in the form of sharing updates. For example, *on Moodle, lecturers typically send one-way messages without expecting a response from students. In contrast, WhatsApp enables two-way communication (Student 9)*, allowing both lecturers and students to send and receive messages, facilitating more interactive and engaging discussions. However, if WhatsApp is not properly used, it can distract and become a barrier to learning. For example, one student said; *WhatsApp can be a significant distractor, especially if students are using it for non-academic purposes during class or study time (student 13)*

Centralised vs decentralised peer tutoring support

Moodle serves as a centralized hub for course materials, including lecture notes, readings, and multimedia resources (Student 10). Research has shown that WhatsApp can support peer tutoring by creating multiple WhatsApp groups from a larger learning community such as the standard LMS like Moodle, or a community WhatsApp group (Mpungose, 2022). Although a larger centralised LMS is necessary as a support tool for administrative purposes for the course facilitator, the smaller WhatsApp groups are also important pedagogically as they maximise student-to-student and student-to-course facilitator engagements.

It's easier to use WhatsApp because it is convenient compared to Moodle (student 11). In the context of this study, where structures for formalised tutoring systems are limited, WhatsApp emerged as a convenient and accessible learning platform. Smaller WhatsApp groups, which were created depending on a number of factors such as belonging to a particular study centre or zone and academic programme, were more convenient and accessible to students.

Another key advantage of WhatsApp is its ability to function effectively in low-bandwidth environments, making it ideal for learners in remote and under-resourced areas. It facilitated peer collaboration, quick feedback, and continuous engagement, supporting informal and blended learning approaches. Additionally, it supports mobile learning by allowing learners to access educational content anytime and anywhere using their mobile devices. However, while WhatsApp has been praised as an effective tool in supporting e-tutoring, it has its own shortfalls and the suggestions presented below outline how it can be improved:

Challenges of using WhatsApp as a student peer tutoring tool

Despite the successes of WhatsApp in supporting student peer tutoring, some challenges negatively impact student peer tutoring. This section addresses the question: What *challenges does WhatsApp pose as a peer-tutoring platform?*

Information overload

The information overload phenomenon has been known by many different names, including: information overabundance, infobesity, infoglut, data smog, information pollution, information fatigue, social media fatigue, social media overload, information anxiety, library anxiety, infostress, infoxication, reading overload, communication overload, cognitive overload, information violence, and information assault (Bawden & Robinson, 2020). This does not necessarily signal presence of too much irrelevant information but the abundance of information to choose from. WhatsApp can lead to information overload, making it difficult for students to filter out the information they need and focus on what addresses their needs (Savolainen, 2007; Bawden & Robinson, 2020; Masrek & Baharuddin, 2023). *I personally got overwhelmed by the number of comments or contents that were shared by classmates (st.14).* For example, Al Abdullateef (2022) found that the use of social media such as WhatsApp has resulted in technostress and fatigue among students due to information overload.

WhatsApp makes learning disorganized, as academic talk is often lost in chats that have nothing to do with the topic or lesson under discussion (st.1). This suggests that close monitoring of WhatsApp chats would be necessary to guide students on what to post and what not to post on the forum. However, Pearnpitak (2024) disagrees with the application of systemic controls that limit student learning.

Another challenge of using WhatsApp as a learning platform is the limitation of file size to post or share on the forum as remarked by one of the students on the forum. *WhatsApp has limits in terms of the sizes of the files to post/share. There are no assessment tools or assessment features on WhatsApp (St. 9).* Although this has not been amplified as a major challenge in WhatsApp use in teaching and learning, segmenting or chunking is usually used to break larger content volumes into manageable bits and pieces of information (Kavale, et al, 2022).

Additionally, it must be acknowledged that WhatsApp was not designed as a teaching or learning tool. Therefore, it requires thoughtful usage to function effectively in those roles. For example, one student noted: *There are no assessment features on WhatsApp for personalised or individualised student assessment, unlike on Moodle where such features are available (st.12).* This therefore means that WhatsApp should not be used as a standalone tool in teaching and learning. It has to be supported by other tools that effectively and efficiently complement the administrative roles of WhatsApp as argued by Cronje & Van Zyl (2022).

Suggested solutions to tutoring challenges using WhatsApp

This section addresses the research question *how would the WhatsApp challenges be resolved for a successful student-peer tutoring experience.* Presented below are the solutions.

Limiting the number of individuals posting updates on the forum

As for me, it can be good if the lecturer forms one group where only the lecturer and class representative can share updates to avoid fake updates..... Limit the number of participants posting information on the forum (student 8). Where multiple smaller decentralised WhatsApp groups theoretically sound good for effective tutoring support as it enhances engagement, some students found it unproductive, as alluded to in the excerpt above. However, it needs to be clarified here on the nature of the updates which should only be shared by the lecturer and the class representative. According to Van Z & Cronje (2022), such postings refer to administrative updates that need to be shared with accuracy.

Setting group rules

The ethical use of the internet is essential for a better learning experience for all group members (Akbar & Alkatiri, 2025). Malawi Communications Regulatory Authority (2025) recognizes unethical internet use by calling for cyber hygiene in social media use. This is also supported by one of the student research participants who stated that *creating group rules would help WhatsApp improve learning (Student 9)*. Unambiguous group rules would help prevent various forms of indiscipline in the forums. *Sometimes, group members misbehave, forgetting the group's purpose, which results in an overload of unnecessary texts, making it hard to access important information (Student 10).* Although it was previously mentioned that information overload doesn't necessarily mean irrelevant posts, it is important to note that some updates are silly jokes that don't contribute to learning. Therefore, establishing group rules would help create a more focused learning environment.

Intensive student-teacher interactions or engagements

Teacher unavailability has been noted as one of the key factors for the loss of study motivation in an online learning space (Al-Hashmi, 2021; Meşe & Sevilen, 2021). *I liked using WhatsApp as a learning platform. However, I would love it if the lecture were more involved, especially in sending lessons through audio and sharing slides and modules for it to be more effective.* Teacher availability alone would not result in learner motivation. Learner motivation would also depend on what the teacher does on the forum and how s/he conducts her/himself. For example, one student participant remarked that *the use of group calls as a supplement to lectures would help clear some misconceptions (St. 9)*. Lin et al (2023) agree by saying that media diversity in a diverse class would result in better learning outcomes as compared to a monotonous media class.

Use labels or hashtags

The use of hashtags symbolises the contribution one makes towards an argument (Small, 2011). Students usually feel good when they contribute to an academic argument or conversation (VanDerHeide & Juzwik, 2018). Encouraging students to contribute to a group conversation and at the same time recognising their contributions would motivate them to contribute more. This enriches the argument and enables other students to learn. *I used labels or hashtags to categorize and organize content making it easier for my fellow students and the lecturer to follow the conversation (st.11*). Hashtags significantly increase the visibility and reach of your content making it easy for colleagues to locate your postings. Hashtags play a pivotal role in increasing social media audience engagement and information dissemination (Kumar et al, 2022).

Recommendations and limitations

It is recommended that embedding social media “WhatsApp” in instructional design, particularly in e-learning would enhance engagement among students which is necessary for effective peer tutoring. This study demonstrated an impact both at the institutional and national levels. At the institutional level, resulted in enhancing learning and teaching experiences. At a national level, it would broaden prospective student participation in higher education

which is in line with Malawi Vision of 2063 of inclusive wealth creation and human capital development in which access to higher education through e-learning is a key. Additionally, the results from the study informs open and distance learning practitioners in similar contexts about the affordances of social media “WhatsApp” in supporting e-learning.

Despite the enormous affordances of WhatsApp in supporting peer tutoring, it would be premature to generalise that the findings would equally apply to other discipline contexts such as science and mathematics and other practical-oriented disciplines. A similar study in such contexts would be necessary to have a balanced understanding of the impact of WhatsApp in supporting student peer tutoring. Additionally, consideration of human factors such as ICT literacy skills, socioeconomic status would be critical.

Conclusion

This study has demonstrated that WhatsApp, despite not being a formally recognised learning management system, possesses significant pedagogical affordances that make it a valuable tool for supporting student peer tutoring in open, distance, and e-learning (ODeL) contexts, particularly in resource-limited environments such as Malawi. The study revealed that WhatsApp enhances communication, collaboration, accessibility, affordability, and connectivity tolerance—factors that are essential for inclusive and equitable access to education. Through its user-friendly interface and familiarity among students, WhatsApp creates an informal yet powerful learning space where students interact, share knowledge, and scaffold each other’s learning in alignment with Vygotsky’s Zone of Proximal Development (ZPD).

Anchoring the study within the Fourth Generation Cultural Historical Activity Theory (CHAT) allowed for an appreciation of learning as a complex, networked, and boundary-crossing activity, rather than a linear or system-bound process. WhatsApp exemplifies this dynamism by connecting diverse learners and facilitating learning beyond institutional boundaries. Nevertheless, challenges such as information overload, lack of structure, absence of assessment tools, and potential distractions highlight the need for guided and ethical usage through group rules, teacher presence, and integration with formal learning platforms like Moodle.

In conclusion, while WhatsApp should not replace established e-learning systems, it should be embedded strategically within instructional design as a complementary platform for enhancing student engagement, motivation, and peer collaboration. Recognizing and formalising its pedagogical role can contribute to more resilient, accessible, and contextually relevant models of e-learning in Malawi and other similar developing contexts.

Declarations

Funding: This study received no funding.

Conflict of interest: The author declares no conflict of interest.

Ethical Approval and consent to participate: All procedures were conducted in accordance with the ethical guidelines of the European Scientific Institute, the national research ethics regulations of Malawi, and the principles of the Declaration of Helsinki.

Clinical Trial Number: Not applicable

Consent for Publication: Not applicable

Participants' consent: Written informed consent was obtained from all participants prior to data collection.

Data availability: The collected data in the form of texts and shared graphics by the participants on the WhatsApp forum are available with the corresponding author on request.

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Robert Kalima is a postdoctoral research fellow at the European Scientific Institute (ESI). My study looks at how ‘WhatsApp’, a form of social media affords student-peer tutoring. Anchored in the Fourth

Generation of Cultural Historical Activity theory, it is learnt that WhatsApp affords student-peer tutoring by bringing a sense of flexibility, accessibility, and community where epistemological and social boundaries are blurred by the mobile networks.

Author Contribution

This article is a sole work by myself, Robert Kalima

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Figures

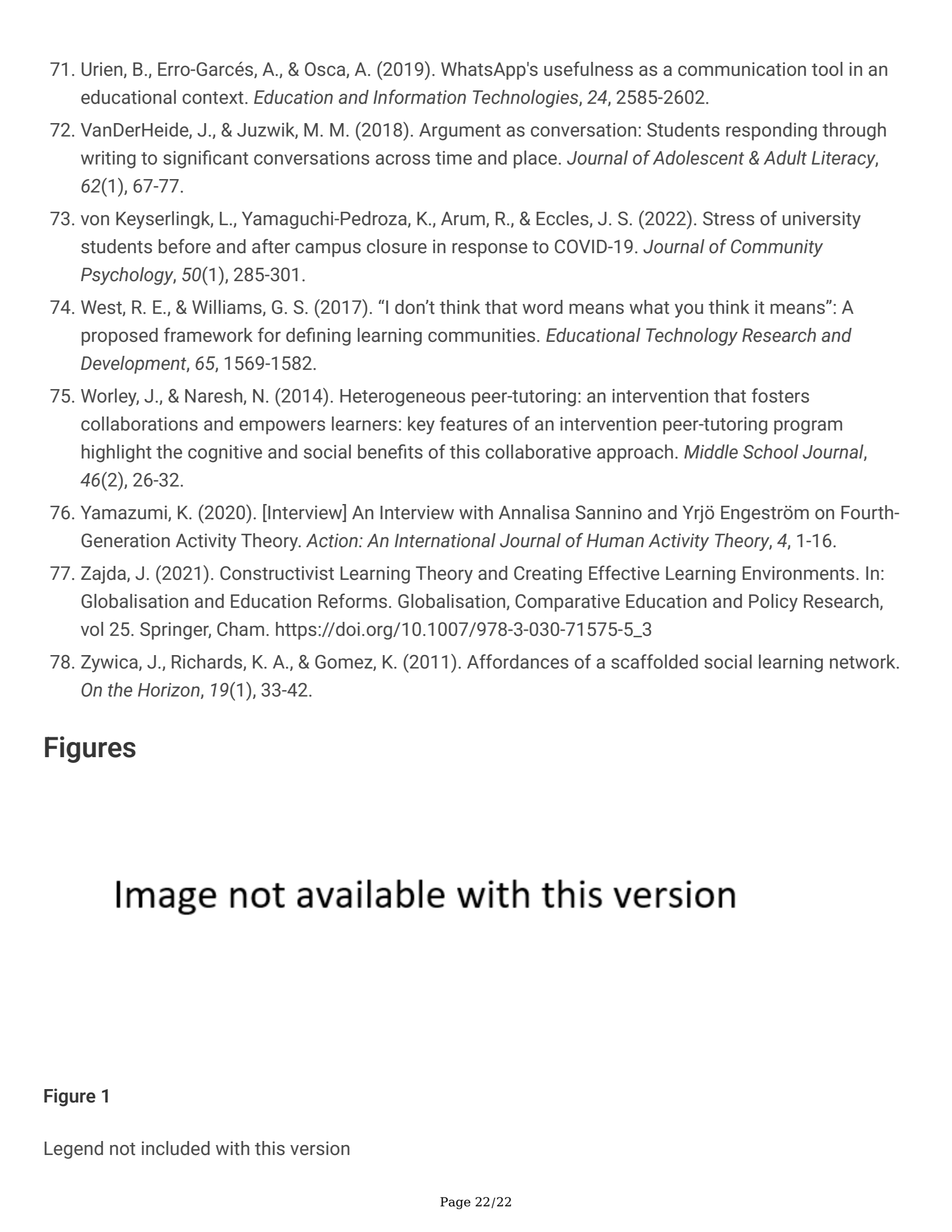


Figure 1

Legend not included with this version