Action Research for Unearthing Paradigmatic Assumptions in a MALL Environment: Reflecting on a WhatsApp™ Intervention to Support Foundation Year Students' Communication

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Abstract

The current study is the first of a two-part action research study to support student's communication using WhatsApp™ at a Foundation Year language program in Saudi Arabia. The study focused on unearthing the assumptions behind the support using factual knowledge gathered from 24 female students. Using a questionnaire that included ten closed-ended questions and a focus on three open-ended questions, the data indicated that the students found the MALL environment and the content agreed with supporting their learning. Some students opined their challenges of remaining in the environment. Others found learning in the MALL environment helpful and improved their reading and writing. Taking an action research approach allowed the two teacher-researchers to unearth the paradigmatic purpose behind supporting students in the MALL environment. The current research falls within the scope of surfacing and linking MALL action with MALL practice, contributing to the active bridging of the paradigmatic purpose of sharing content with students outside their classes in a MALL environment.

Keywords: action research, communication, MALL environment, paradigmatic reflection

1. Introduction

1.1 Communicating in an Exciting MALL Environment

Scrutinising the exciting environment of mobile language learning (MALL) (Tang & Shrestha, 2018) places a challenge on improving the communication of second language acquisition students. The environment consists of students and teachers who use the applications on their smartphone devices to socialise. The applications give access to content shared in the environment for communicative purposes. The content provides instructions and links on using the application. Giving students access to the contents raises questions about how students improve their communication in English outside their classrooms. Kukulska-Hulme and Shield (2008) defined learning within a MALL environment as a mediator while learning informally. A mediator suggests that the environment highlights issues of conflict. Conflict involves students who perceive that they need nothing new explained regarding how to use their familiar smartphones. However, when learning English, a stimulating context for communicating requires students to behave differently using their smartphones. Thus, the conflict settles within a defamiliarised classroom environment, which the teacher scrutinises for sharing content using the applications.

1.2 Contextualising the Research Issue

The current study is the first of a two-cycle action research that endorses the teacher use of applications to promote communication in MALL environments. The current study contextualises itself on using a MALL environment to promote communication with higher education students at a Foundation Year English language course at King Abdulaziz University. The teacher-researchers provided students with support for their studies. The current study involved the first researcher with 24 female students who used a WhatsApp™ application to communicate outside their classroom. The research needed to surface the assumptions behind helping students outside their classrooms with content to improve their communication using WhatsApp™.

1.3 The Rationale for WhatsApp™ as the MALL Environment

Applications like WhatsApp™ utilise the smartphone's instant messaging ability, which encourages sharing content with anyone having access to the application (Andujar, 2016). User accessibility makes receiving and sending messages an essential tool (Ma, 2017) for dispensing and accessing knowledge for communicating in English. As a tool, WhatsApp™ provides a way for the teacher to share knowledge with students. WhatsApp™ also provides the students access to knowledge outside the classroom. A key concern for the teacher when sharing content lies in the relevance of the content for the users (Andujar, 2016; Richards, 2006; Rixon, 2001) in WhatsApp™, also referred to in the current study as the MALL environment.

1.4 MALL Influence on Communication for Foundation Year English Language Students

Relevant content shared in a MALL environment has influences on communication. First, considerations about the content replicate real-life decision making. Clarke and Silberstein (1977) concentrated the influence of relevant content on matching the needs of the students. Students needed to have proximity with real-life when they connected their needs with their learning in the environment. Second, the teacher gains knowledge about the learning needs through placement tests and interview results, providing demographic knowledge about the students. Richards (2006) suggested that the relevancy of content promotes interaction when students try to maintain communication in different settings. Such relevancy connects with the teacher linking the content with the students' needs to allow meaningful communication to occur in the MALL environment. Then, the problem lies with providing content that improves learning through the MALL environment. In taking such an action, there is also the need to surface the assumptions behind using MALL environments to support the communication of Foundation Year students in the English language course at a Saudi Arabian institution of higher education. One reason for such a surfacing lies in supporting Foundation Year students at the English Language Program at the Saudi institution. The students require some assistance in using content shared with them in the MALL environment. So, students in a language section who use the MALL environment become supported outside their classrooms.

2. Reviewing MALL Practice

The literature review looks at previous research interest in using the smartphone to help students communicate. Then it delves into how teachers improve writing using the MALL environments. The review links the context of the current research and contrasts reflection as an essential focus for research on MALL environments. The literature review looks at previous research interest in using the smartphone to help students communicate. Then it delves into how teachers improve writing using the MALL environments. The review links the context of the current research and contrasts reflection as an essential focus for research on MALL environments. At the Foundation Year program, the teacher-researchers were interested in helping their students communicate outside their classrooms. The interest in the researchers was based on teaching students during the first academic semester of 2018. In the first semester, the teachers wanted to send reading materials, video links and language learning content to their teaching. Then, the students read and watched the content to prepare for their classroom participation in activities such as assessment. It was essential to connect the MALL environment or the use of WhatsApp™ with previous research to identify reflection as an essential role in promoting students' communication.

2.1 Helping Students in MALL Environments

Previous researchers showed interest in students using MALL environments (Alsowayegh & Garba, 2019; AlTameemy, 2017; Andujar, 2016; Ma, 2017; Kukulska-Hulme & Shield, 2008; Tang & Shrestha, 2018). AlTameemy (2017) values presence due to the familiarity of the smartphone to add a fun factor when students communicate. In presence, a socialising effect takes hold of students. First, the smartphone has a *'won't-do without'* appeal. Second, communicating in the MALL environment presents opportunities for teaching and learning. The role of presence in aiding the socialising effect appears around students' activities with their smartphones in the MALL environment. Andujar (2016) used WhatsApp™ as the MALL environment to improve the writing of students. The research encouraged students to use the activities in the environment to construct their communication in a meaningful way. Accordingly, students on Foundation Year English Programs, who need encouragement, find the MALL environment conducive to support improvement in communication. Andujar (2016) provides evidence that students partake in activities that help students communicate. Supporting the evidence (Andujar, 2016; Ma, 2017) were students producing work based on their understanding of the teacher's instructions in the MALL environment. So, the value of the MALL environment included a location to access content that the teacher provides students. Andujar (2016), Ma (2017), AlTameemy (2017) evidenced questions provided to students in the form of questionnaires to provide valuable experience of using the MALL

environment for learning purposes. Such information allows the researcher to question students who interest the researcher (Kukulska-Hulme & Shield, 2008; Tang & Shrestha, 2018).

2.2 Surfacing MALL Support through Reflection

In contrast, reflection surfaces the foundation to support students. In a higher education setting, reflecting on what promotes learning and providing evidence using students' work encourages what Burns (2010) describes as reflection. Baguma et al. (2019) used Bloom's taxonomy to describe students' transfer of learning in MALL environments like WhatsApp™. Farahian and Parhamnia (2021) raised the importance of reflection and sharing knowledge. Thus, teachers who reflect on their use of WhatsApp™ share their WhatsApp™ knowledge because they apply their knowledge through linking practice and learning. Finally, to gather data about the importance of reflection, researchers utilised a questionnaire (AlTameemy, 2017; Andujar, 2016; Farahian & Parhamnia, 2021), conversations (Andujar, 2016), interviews and students' work (Ma, 2017) to reflect on the students' work and their opinions for using WhatsApp™.

2.3 Linking MALL Practice with Reflection

The current study considers the importance of providing the Foundation Year English students with the opportunity to improve their communication outside the classroom. The teachers who have no previous experience in using MALL environments need not rely on disciplinary knowledge only; they need to surface their assumptions while using the MALL environment to understand how their decisions led to supporting students. The disciplinary knowledge contextualises communication using the skills area of reading and writing, which students need to improve (Banegas & Busleimán, 2021, p. 21; Harmer, 2007). As the teacher-researchers in the current study, we actively agree with reflecting on the MALL research to improve teaching practice, which resonates with certain quarters (Burns, 2010). Taking an active interest in the actions that supported the students' communication required reflection. Students need to prepare work for classroom purposes. When a MALL environment becomes introduced to students, the teacher needs to reflect on what has taken place by questioning whether the content introduced to students promotes learning. Brookfield (2002) linked the need to reflect, which included surfacing the assumptions behind supporting students. Such surfacing and linkages contribute towards the active bridging of MALL action with MALL practice in the current action research.

2.4 Research Question

Subsequently, the research aims to surface the assumptions behind using MALL environments to support the communication of Foundation Year students in the English language course at a Saudi Arabian institution of higher education. The two key questions below were asked to achieve the aims of the research:

1) What are the opinions of the Foundation Year students at a Saudi Arabian higher education institution regarding the content shared on WhatsApp™ for communicating in English?

2) What are the opinions of the Foundation Year students at a Saudi Arabian higher education institution regarding using WhatsApp™ for communicating in English?

3. Methodology

The empowering force of the research came from using an action research methodology. The key to accessing an action research methodology began with the teacher-researcher wanting to learn from applying WhatsApp™ to improve students' communication. Action research offered a tradition (Edge & Richards, 1993) that included learning from the classroom. Learning included asking students directly and observing their work in the classroom. Action research offered the teachers who used WhatsApp™ in the classroom to take advantage of the tradition whereby students offer their opinions and views about learning influences. Action research has long been established for English teachers to use and improve their practice (Burns, 2010; Ellis, 2010; Nunan, 1992). It was appropriate to position the current research within an action research methodology to place WhatsApp™ as a means to improve communication as the intervention in the classroom. Then, questions about students' opinions were established because action research recognised the importance of improving our classroom practice.

3.1 Surfacing Assumptions through Action Research

Action research offered an exciting approach to surfacing the assumptions for communicating in MALL environments. Taking an action research approach provided a base to learn from using the MALL environment (Burns, 2010). As the teacher-researchers embarked on a new area that differed from purely teaching English, it was essential to guide the research according to action research approaches. Reflection was one of the fundamental guiding principles of action research. Planning to intervene through an informal learning

environment posed a challenge for the teachers. One critically related to gaining knowledge from the students and contrasting the knowledge with the purpose of the content shared in the MALL environment. The data needed to give descriptions of the activities that unfolded in the research as students' opinions. Brookfield (2002) described the difficulty of reflection as a relation between opinions and the intent of the content. The students' opinions might contrast with the reasons why the teachers shared content in the MALL environment in the first place. Hence, action research provided a means to unearth the students' opinions and surface the purpose of the content shared and in the MALL environment. Besides, none of the researchers reviewed in the literature used an action research methodology.

3.2 The Implication of Action Research in the MALL Environment

The question of teachers using their classroom to improve their practice required a design that recognised two critical factors. First, sharing of content and gaining an understanding of the experience needed to resonate with the teacher-researcher. Burns (2010) extended such resonance as an opportunity to research. Second, teaching with WhatsApp™ was not an everyday activity. For example, unlike having tweaked the experience of teaching a writing strategy to SLA students (Brookfield, 2002), using a MALL environment needed feedback from the students. Such feedback included factual knowledge of communicating in the MALL environment. Factual knowledge described the MALL environment from the students' opinions using a questionnaire (AlTameemy, 2017; Andujar, 2016; Farahian & Parhamnia, 2021) and the students' work (Ma, 2017). Such factual knowledge required using a questionnaire with the students to find their opinions of the content shared in the environment.

3.3 The Implication of MALL and Reflection

The factual knowledge uncovered the assumptions about the MALL environment. The assumptions included assumptions about what students thought of the MALL environment, the content, which aided the teacher-researchers to uncover the assumptions behind the MALL environment in the current research. Hence, the purpose of the research and its objectives had implications on the relationship between factual knowledge and improving the communication of Foundation Year English students. Such assumptions gained value for the teacher-researchers because Burns (2010) asserted the validity of knowledge generated from classroom-based practice that had data to back up the assumptions. We agreed through presenting what we planned and did with our students at an international conference (Alsowayegh & Garba, 2019), where we received critical feedback from peers. Then we confirmed our intervention had significance for linking the classroom-based practice of MALL environments. Linking the reflection with Brookfield (2002) provided an empowering force for the current study since the literature review did not disclose how previous research made such explicit connections. As teachers researching WhatsApp™ as the practice, such explicit recognition added to the contributory force of the current research.

3.4 The Action Research Cycles

Surfacing the purpose of using the MALL environment gives access to what teachers critically value. So, the purpose of this action research related to surfacing the assumptions behind using MALL environments to support the communication of Foundation Year students at a Saudi Arabian institution of higher education. The teachers did not initially set out to ask how to surface the assumptions. In the initial stage of using the WhatsApp™ group with students, one of the researchers contacted the second researcher to investigate how to publish classroom-based interventions that use the group activities in WhatsApp™. That was during the First Semester of 2018. Burns (2010) marked the type of territory that comes with using an action research methodology. For instance, action research involved planning, acting, observing, and reflecting. Using the approach gave a valid cycle of action at the planning stage, where we intervened to support the students. At the acting stage, a questionnaire was used to gather open and closed-ended data from students. The results also provided access to the observation of the data. Finally, reflection meant a link between the data and the students' opinions as evidence to answer the research questions. The next stage begins with the planning involved in the action research cycle (Burns, 2010).

3.4.1 Planning

The planning stage involved using WhatsApp™ as an intervention to support the communication of the Foundation Year students (Burns, 2010). The intervention took two cycles during the first and second semester of 2018. The current study reported only on the first cycle. The cycle saw the first researcher use WhatsApp™ with 24 female students at a general English class at a Foundation Year program. The first researcher also taught the same students. The current study needed data. So, using a convenience sample, the teacher-researcher decided to ask her students about their use of WhatsApp™, which suited the purpose of the current study. Since the use of WhatsApp™ required data from the 24 female students, it was appropriate to gather the data from the sample of

students taught by the same teacher during that first semester. Before using WhatsApp™, the students were asked by the teacher to consent to participate in the intervention. After the intervention, the students were also asked to consent to participate in the research. The students who agreed were distributed a questionnaire that the teacher prepared and wanted to gather data for the research.

The teacher-researcher clarified that the students needed not to participate. Also, the teacher would not disclose the students' identities during the research (Brown & Rodgers, 2002; Burns, 2010). The ethical disclosure did not include using the students work. Only the questionnaire data was used in the current study from willing students who consented to participate by completing the anonymous questionnaire. At the end of the semester, to gather the students' opinions about using WhatsApp™, the teacher-researcher distributed a questionnaire. The questionnaire supported gathering data to answer questions about the opinion of the students. The data were analysed using descriptive statistics to show the frequency of the responses of the students. The teacher-researcher wanted to have factual knowledge from the students regarding the content shared on WhatsApp™ for communicating in English outside the classroom in the first cycle.

3.4.2 Acting

The cycle aimed to use WhatsApp™ to support the students to communicate in English outside their classroom. First, the teacher asked the students for their permission to partake in using WhatsApp™ as part of their course. Second, the teacher created the group and sent the link for the students to join the group. Third, the teacher shared some house rules about using the group, such as using the first language, L1, asking questions, being polite, and not making fun of one another (see Figure 1 below). The house rules established the seriousness of the group for learning English.
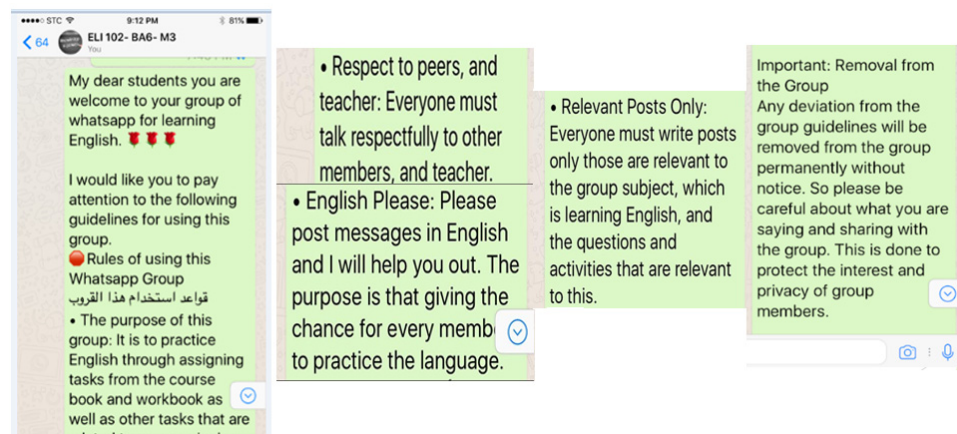

Figure 1. The teacher's screen captures the house rules shared with students

The teacher then sent a rubric for grading the students' work, which included meeting the assignment objective and using correct language, grammar, and spelling. The assignments for students to complete included reading parts of Gulliver's Travels with questions to check their reading comprehension. Video links shared also included questions students needed to complete and share in the group. The questions included what students established from the videos about happy people's habits. The students shared their responses using text and audio messages, which provided the teacher with content to grade their work. At the end of the semester, the teacher administered a questionnaire to the students, including open and closed-ended questions. The teacher-researcher asked open and closed-ended questions to gather factual data from the students (Burns, 2010). The students needed to provide opinions about the MALL environment, communicating in English and the challenges of the MALL on their communication (Harmer, 2007). The results section below details the results from the students' responses to the open and closed-ended questionnaire.

3.4.2.1 Results

There was a 100% response rate from the female students (*n=24*) who completed the questionnaire. The students indicated that three sections asked about improvement, challenges, and helpfulness in using WhatsApp™ for learning English from the questionnaire. Table 1 shows the first four items on improvement. After that, Table 2 shows the next three items on challenges from the MALL environment. Finally, the last three items in Table 3 focused on the helpfulness of the MLL environment. The responses to the close-ended questionnaire items in percentage show that the students' opinions were positive and agreed with the statements about improving language skills and getting help to learn through the platform. The students also agreed with the challenges posed

to learning English using the MALL environment. In general, the descriptive statistics used to analyse the data also showed the individual mean and standard deviation of the items suggesting that the students responses indicated they agreed with the use of WhatsApp™ to support their learning of English in the classroom, using the MALL environment and content shared for reading, writing, and language skills from watching the video links. In the analysis below, a frequency table of the percentage of students will be used to describe and group the items related to improvement, challenges, and helpfulness.

Table 1. Questionnaire items 1-4 related to improvement

No.	Questions	Disagree	Strongly Disagree	Neutral	Agree	Strongly Agree	Total	Mean	SD	Value
1	Improved my reading skills	1	1	6	6	10	24	3.958	3.594	
2	Improved my writing skills	2	2	2	10	8	24	3.833	3.512	
3	Improved my language skills by using the reading materials	1	3	2	9	9	24	3.917	3.571	Agree
4	Improved my language skills by watching movies	0	3	1	10	10	24	4.125	3.719	

Figure 2 below shows the first set of four questions related to English improvement using the MALL platform. The results showed that students agreed on the use of WhatsApp™ for improving their skills such as reading skills (67%), writing skills (75%), language skills using the material (75%) and watching movie content (83%).
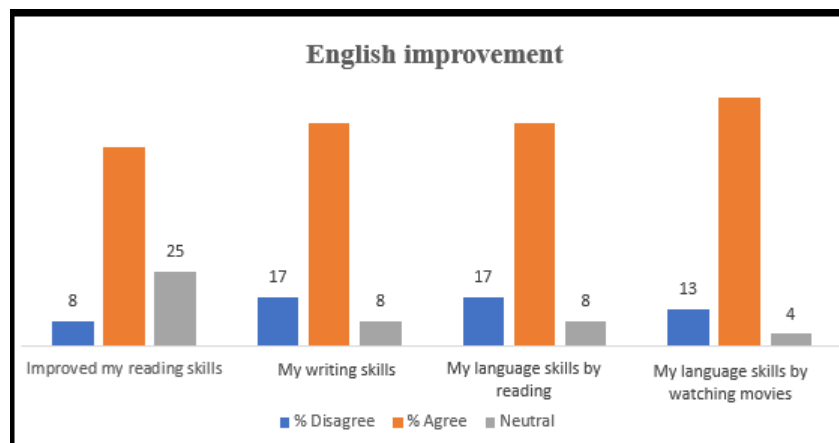

Figure 2. Improving English using WhatsApp™

Table 2. Questionnaire items 5-7 related to challenges to learning

No.	Questions	Disagree	Strongly Disagree	Neutral	Agree	Strongly Agree	Total	Mean	SD	Value
5	Has no control on blocking students' unrelated posts or questions	2	1	8	4	9	24	3.708	3.403	
6	Can overloaded the phone so no space is left	2	6	4	2	10	24	3.500	3.291	Agree
7	Permits the students to leave the group at any time	2	1	5	5	11	24	3.917	3.606	

Figure 3 below shows three questions related to the challenges of using the MALL platform. The challenges included controlling posts, phone overload, and leaving the group. The results showed that students agreed (54%) that WhatsApp™ did not allow the students to control the messages shared on the platform. That was a good

indication that anyone in the group, especially the students, received posts that they did not initiate. Such unintended posts included information such as exam times, homework assignments due, and activities to do in the MALL environment. The students also agreed (50%) that the platform overloaded their phones. Finally, the students agreed (67%) that the platform allowed them to leave the group anytime they wanted. Interestingly, some students did not agree (13%) that they could leave the group at any time, with 21% remaining neutral about their perceptions.
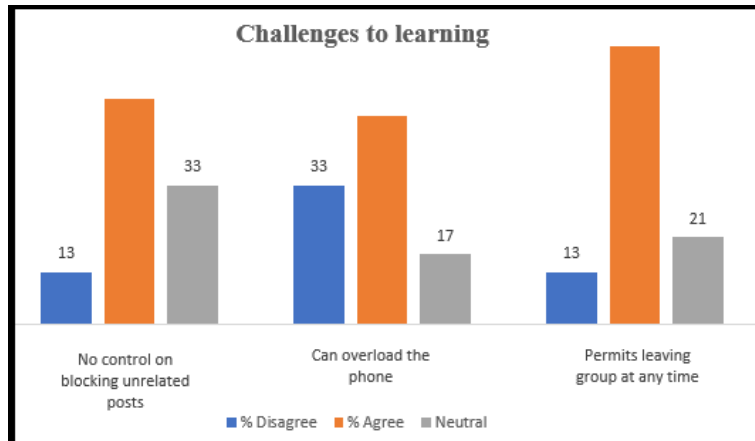

Figure 3. Challenges to learning English using WhatsApp™

Table 3. Questionnaire Items 8-10 related to helping students

No.	Questions	Disagree	Strongly Disagree	Neutral	Agree	Strongly Agree	Total	Mean	SD	Value
8	Helps students get instructor's support.	0	1	1	5	17	24	4.583	4.123	
9	Helps students get support from their peers	0	1	2	9	12	24	4.333	3.884	Agree
10	Helps shy students to participate effectively	0	2	1	8	13	24	4.333	3.905	

Figure 4 shows the last set of three questions related to the students agreeing with the platform supporting their learning. The results showed that students agreed (92%) that WhatsApp™ allowed the students to get instructor support. Also, the students agreed (88%) that their peers supported them through the platform. However, some students (4%) disagreed that the platform helped them get support, indicating that the platform did not allow the teacher to support everyone. However, the students agreed (88%) that the platform supported shy students to participate effectively.
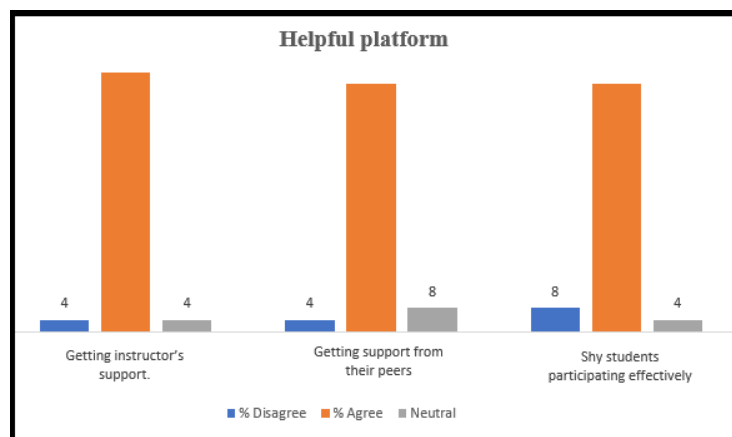

Figure 4. Helpful for learning English using WhatsApp™

The open-ended result from the questionnaire was analysed to categorise the students' responses. The following perspectives of the students relate to the MALL environment. Also, it relates to the content shared in the MALL and the use of content in the MALL.

3.4.2.2 MALL Environment

The general view from the closed-ended responses indicates that the students found they communicated freely, saying what they wanted. One student stated the following: "*I can say my opinion without hesitating*". Others indicated they used the environment to achieve their learning goal: "*I can discuss about some topics*", and "*when some student was absent I can send homeworks*". However, some students felt restricted in the environment: "*I could be assigned some activities in inappropriate times e.g. exams time*". Also, some found that they could not leave the group: "*I cannot exit the group because it is important*". Finally, remaining in contact with the teacher was also opined: "*Keep us in touch with the teacher*".

3.4.2.3 MALL Content

The students indicated their opinions about the content, such as the following: "*Keep updated of things I may missed in the class*", "*Reminds me about the homework*", and "*I can know how to answer exam questions*". Also, other comments included the communication from the teacher using the target language, English: "*The teacher communicates in English only*". Such data from the open-ended questionnaire supported the challenges of the type of posts students received on their phones.

3.4.2.4 Learning in the MALL Environment

Finally, the students gave their opinions about learning English using the MALL environment. Language improvement areas included skills: "*it improved my English skills*". An interesting contrast of learning in the MALL environment than in the classroom included the following: "*it was a good chance to communicate and practice English outside the class and understand in more than the traditional way*". Also, some saw the potential to benefit in general, "*I benefited from the information*", others took advantage of preparing themselves to use the content to challenge themselves, "*it helped me to solve difficult questions*".

3.5 Observing

The data from the results of the first intervention indicated a positive response from the 24 female students who used WhatsApp™ to communicate outside their classroom. It also suggested that the content and learning in the MALL environment was positive. In terms of communicating outside the classroom, the closed-ended questionnaire data indicated that the students attributed improvements in their reading (67%) and writing (75%) using the material (75%) and watching movie content (83%). One reason the students indicated that their learning had been positive was the teacher sending content to them. 92% of the students agreed that their learning had improved. The agreement strongly indicates the role of the teacher in sharing the content for learning English using the MALL environment.

Interestingly, the data showed that 13% of students did not agree that they could leave the group at any time, with 21% remaining neutral about their perceptions. Some students also expressed the restriction of leaving the group. One indicated the following: "*I cannot exit the group because it is important*". However, the data provided rich opinions of the students, such as shy students (88%) getting support from other students in the form of peers (88%), contributing to the students finding the group necessary. To such support, one student commented, "*when some student was absent I can send homeworks*", while others partook in accessing the support such as the following: "*I benefited from the information*", and "*Keep updated of things I may missed in the class*", "*Reminds me about the homework*" "*I can know how to answer exam questions*". Observing the data provides evidence to claim that WhatsApp™ had positive support on the students' communication outside the classroom.

3.6 Reflections

In reflecting on using WhatsApp™ (Burns, 2010) to support the students, we considered the experience a positive one to use in the classroom and develop new ways to support students. The research needed to answer two questions regarding the opinion of the students on the content shared in WhatsApp™ and the students' using WhatsApp™ for communicating in English. The questionnaire provided sufficient evidence about the opinion of the students to answer both questions. First, the evidence from the closed and open-ended data indicated that the students found the use of WhatsApp™ positive. Second, the evidence also indicated that the students found WhatsApp™ challenging and helpful in their learning. So, the use of WhatsApp™ had some students struggle to manage the flow of information and remain within the group. In preparing the students to improve their communication in WhatsApp™, we underestimated what AlTameemy (2017, p. 440) referred to as challenges (Alsowayegh et al., 2019; Wang & Higgins, 2006). Hence, the challenge fell on using environments like

WhatsApp™ with students who share posts with anyone at any time. Also, improvements in reading and writing resulted from the teacher sharing material such as the movie links, homework, and questions to practice activities for reading and writing. The assumption of the teacher was appropriate to involve students taking control of their learning outside the classroom. The teacher shared the content with the students in the MALL environment. Such direction fell into an assumption that students directed their learning even when it was in situations counter to their intuition. For example, one student stated that leaving the group was not an option even though it was possible to leave the MALL environment. The student decided to stay.

Such acting and directing fell into what Brookfield (2002) described as a paradigmatic purpose which the action research uncovered. The purpose meant that the teacher-researchers assumptions were around using the *won't do without* appeal of the smartphone to support the students outside the classroom (Banegas & Busleimán, 2021, p. 21; Harmer, 2007). Such an appeal also agreed with the type of reflection that allows sharing knowledge about the MALL environment with other researchers (AlTameemy, 2017; Andujar, 2016; Farahian & Parhamnia, 2021). The knowledge had evidence from a classroom-based study to validate it (Burns, 2010). It was based on the factual knowledge that the teacher-researchers prepared the second cycle. Hence, the knowledge from reflection guided the intervention towards supporting a new intervention. Such a cycle of reflecting and acting and creating a new intervention agreed with action research traditions (Burns, 2010).

4. Limitation

The action research cycle offered the opinion of 24 female students that were taught during one academic semester in 2018. The students were not coerced to participate, which requires stating within the limitation of the study. However, some students indicated their challenges, such as not leaving the group and having many messages shared at different times. Disclosing and maintaining such challenges as part of the study also strengthens the validity of the data. Finally, the current study results fit into the context of teaching English to Foundation Year Students at the Saudi Arabian higher education institution.

5. Conclusion

The current research falls within the scope of surfacing and linking MALL action with MALL practice, contributing to the active bridging of the paradigmatic purpose of sharing content with students outside their classes in a MALL environment. Such contribution aids teachers who need evidence of classroom-based improvements from other teacher-researchers. The action research surfaced the teacher-researchers paradigmatic purpose behind using a MALL environment to support the communication of Foundation Year students in the English language course at a Saudi Arabian institution of higher education. Such assumptions and factual knowledge support a further study that focuses on students' work in the MALL environment.

References

Alsowayegh, N., & Garba, I. (2019). WhatsApp for defamiliarising foundation year English learners: A collaborative action research evaluation. In C. B.-P. et al. (Eds.), *SEAHF 2019* (pp. 91-97). Springer Nature. https://doi.org/10.1007/978-3-030-22964-1_10

Alsowayegh, N., Bardesi, H., Garba, I., & Sipra, M. (2019). Engaging students through blended learning activities to augment listening and speaking. *Arab World English Journal, 5*(5), 267-288. https://doi.org/10.24093/awej/call5.18

AlTameemy, F. (2017). Mobile phones for teaching and learning. *Journal of Educational Technology Systems, 45*(3), 436-451. https://doi.org/10.1177/0047239516659754

Andujar, A. (2016). Benefits of mobile instant messaging to develop ESL writing. *System, 62*, 63-76. https://doi.org/10.1016/j.system.2016.07.004

Baguma, R., Bagarukayo, E., Namubiru, P., Brown, C., & Mayisela, T. (2019). Using WhatsApp in teaching to develop higher order thinking skills-a literature review using the activity theory lens. *International Journal of Education and Development Using Information and Communication Technology (IJEDICT), 15*, 98-116.

Banegas, D. L., & Busleimán, G. M. (2021). EMI materials in online initial English language teacher education. In *Language Use in English-Medium Instruction at University* (pp. 100-125). Routledge. https://doi.org/10.4324/9781003134534-6

Brookfield, S. D. (2002). Using the lenses of critically reflective teaching in the community college classroom. *New Directions for Community Colleges, 118*, 31-38. https://doi.org/10.1002/cc.61

Brown, J. D., & Rodgers, T. (2002). *Doing second language research*. Oxford University Press. Retrieved from https://books.google.ie/books?id=PjXiSnZeS6AC&pg=PA10&dq=primary+research+definition&hl=en&sa =X&ved=0ahUKEwj9xqKNlZvXAhVCuhoKHWSdB4oQ6AEIJjAA#v=onepage&q=primaryresearchdefin ition&f=false

Burns, A. (2010). Doing action research in English language teaching: A guide for practitioners. In *Doing Action Research in English Language Teaching: A Guide for Practitioners*. Routledge. https://doi.org/10.4324/9780203863466

Clarke, M. A., & Silberstein, S. (1977). Toward a realisation of psycholinguistic principles in the ESL reading class. *Language Learning, 27*(1), 135-154. https://doi.org/10.1111/j.1467-1770.1977.tb00297.x

Edge, J., & Richards, K. (1993). *Teachers develop teachers research*. Heineman.

Ellis, R. (2010). Second language acquisition, teacher education and language pedagogy. *Language Teaching, 43*(2), 182-201. https://doi.org/10.1017/S0261444809990139

Farahian, M., & Parhamnia, F. (2021). Knowledge sharing through WhatsApp: Does it promote EFL teachers' reflective practice? *Journal of Applied Research in Higher Education, ahead-of-p* (ahead-of-print). https://doi.org/10.1108/JARHE-12-2020-0456

Harmer, J. (2007). *How to teach English*. Pearson Education. https://doi.org/10.1093/elt/ccn029

Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL, 20*(3), 271-289. https://doi.org/10.1017/S0958344008000335

Ma, Q. (2017). A multi-case study of university students' language-learning experience mediated by mobile technologies: a socio-cultural perspective. *Computer Assisted Language Learning, 30*(3-4), 183-203. https://doi.org/10.1080/09588221.2017.1301957

Nunan, D. (1992). *Research methods in language learning*. Cambridge University Press.

Richards, J. C. (2006). Communicative language teaching today. *Tesol Quarterly, 25*(2). Cambridge University Press. https://doi.org/10.2307/3587463

Rixon, S. (2001). *Optimum age or optimum conditions? Issues related to the teaching of languages to primary age children*. Retrieved from https://www.britishcouncil.org/english/eyl/article01.htm

Tang, J., & Shrestha, P. (2018). Special issue: Online and mobile language learning. *International Journal of Computer-Assisted Language Learning and Teachingand Teaching, 8*(3), v-vi.

Wang, S., & Higgins, M. (2006). Limitations of mobile phone learning. *The JALT CALL Journal, 2*(1), 3-14. https://doi.org/10.29140/jaltcall.v2n1.18