

Learning Beyond the Walls: Mobile Classrooms for Disadvantaged ELLs

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Objectives: Although technology-based language instruction has come to be seen as a panacea for all learning-related issues, technology-based language instruction offers a solution to the unsymmetrical entrance to learning resources and shifting to modern teacher-dominated learning approaches. Teachers' expectations for new technologies to arbitrate unchanging teaching approaches have inhibited the most effective use of technology apps like instant messaging. Significant changes in teaching designs are required to integrate mobile instant messaging and deliver distributed cooperative/synergetic learning for students; this study chose a mobile converted classroom to restructure language training. At the same time, when compared to their peers, the difficulties faced by underprivileged English learners are numerous. By 'disadvantaged,' we mean learners who have not had optimum linguistic, academic, social, and economic opportunities until they entered Majmaah University. The mobile converted classroom incorporated mobile platforms (such as WhatsApp) by physically scattered learners to collectively deal with content after illustrating IT notions and processes by the teacher. It turns out that mobile converted classrooms allowed English language learners to study at their own pace, increased their entry into distributed learning, boosted their cognitive processes, encouraged on-task activities, and encouraged informal replay of educational videos via WhatsApp (teacher-student and student-student). According to the findings, successful adoption and adaptation of new technologies necessitate consideration of students' disciplinary knowledge, ability to collaborate, and continual commitment to participate in academically related tasks.

Key words: MALL, Mobile, EFL learning, disadvantaged ELLs

Tob Regul Sci.™ 2021;7(5-1): 3812-3825

DOI: doi.org/10.18001/TRS.7.5.1.155

INTRODUCTION

Despite the fact that mobile devices have been studied for more than two decades, their ability to support distributed mobile learning is still a relatively new topic in academic research (Webb, 2008; Yoon & Hirvela, 2004). Distributed mobile learning illustrates the synergetic learning among geographically scattered learning groups deliberated by mobile devices like laptops, cell phones, and

smartphones. Although mobile applications are acknowledged for the scope, they extend to students to work collectively in different situations (Wang et al., 2015), access common resources synchronously (Yoon & Hirvela, 2004), and emphasize learning pliability by fitting learning into learner work procedures (Wang et al., 2015), these usabilities cannot be presumed to promise distributed synergetic learning. To accomplish dispersed synergetic learning, teachers must take advantage of the potential of mobile phones to boost student

learning across physical and temporal constraints. Despite the fact that teachers are using new technologies to personalize learning experiences for their students (such as digital simulations, videos, and mobile instant messaging) (Li & Zhu, 2017), they warn that these technologies will have limited impact unless radical changes are made to the traditional teaching model. In keeping with the need for new teaching methods, this study used an unusual classroom setting to support the dispersed synergetic learning of English Language Learners (ELLs) at Majmaah University. These students entered the university unprepared (academically, linguistically, and socially) to handle the academic complexities of postsecondary education. Because of the discussion as mentioned above, the subsequent research questions were constituted:

1. How could an unconventional classroom be formulated to foster the distributed synergetic learning of disadvantaged ELLs?
2. What learning outcomes did learners attain from employing such an unconventional classroom?

LITERATURE REVIEW

The background of Computer-Assisted Language Learning (CALL) can be referred back to the 1960s. However, modern computer technology alongside the internet has transformed how computers can assist language learning (Warschauer, 1996). Warschauer reported the case study of a group of Bulgarian learners who conventionally did not have ingress to English-speaking communities. The group was studying contemporaneous American short stories and utilized a variety of technologies to boost this process. E-mail interaction was organized with a group of TESOL learners from America to pose queries regarding the language and cultural contexts. In addition to that, concordance software was administered to examine some of the utterances from the texts in a greater scope of the English language. The American learners made recordings of the texts so that they could be utilized to enhance the listening skill of the Bulgarian students (Meskill & Rangelova, 1995). In contrast, mobile wireless technology learning tools are a relatively new development and incorporate a more personalized trend in learning. Berger (2001) summarizes the

advantages of mobile technology: It can lead to teaching and learning as it fosters (i) better awareness of 'anywhere, anytime; (ii) collaboration between geographically distributed students; (iii) liberty of arrangements in and out of the classrooms; (iv) remote understanding and consolidation of information; (v) direct connections to the internet; and (vi) a deviation from 'anywhere, anytime to 'everywhere, every time.

Davis and Lupker (2006) investigated the utilization of wireless technologies in learning with specific reference to the possibilities of acquiring new technical English terms with the help of SMS (Short Message Service). They developed a Mobile Learning Tool (MoLT) system, which was verified by forty-five students in the first year of an undergraduate course. The students' level of knowledge skills before and after the demonstration was measured. Findings revealed that learners enjoyed and acquired new English words using their mobile phones. These results confirmed that mobile technologies like phones as learning tools will add to the achievements of the students.

Socket and Toffoli (2012) presented a study comprising three investigations in mobile learning in the same vein. Firstly, they interviewed 333 Japanese university students concerning their usage of mobile phones. The results showed that 100% of students owned mobile devices. About ninety-nine percent of students regularly sent emails on their mobile phones and exchanged around two hundred email messages per week. Of these 200 emails, sixty-six percent of emails concerned classes, whereas thirty-four percent were about studies.

In contrast, only one percent of students sent emails on their personal computers and exchanged an average of merely two messages each week. Only twenty percent of students used a personal digital assistant (PDA). Secondly, they e-mailed English vocabulary lessons containing 100 words at various intermissions to the mobile devices of 44 Japanese university learners expecting to enhance regular study. Compared to the students asked to study similar material on paper regularly, the students who received a mobile email learned more. Almost seventy-one percent of the students favored receiving English lessons on their mobile phones instead of their PCs. Ninety-three percent of the students observed that this is a valuable teaching

method. Thirdly, they launched a website expounding English idioms, where learner-produced animations showed literal meanings while a video showed the idiomatic meaning of each idiom. Textual material contained clarification, scripts, and quizzes. The website was evaluated by thirty-one Japanese university students who reported few technical issues and highly appreciated its educational benefits.

Brodahl et al. (2011) confirmed the undergoing rapid development in the arena of mobile learning. Although earlier generations of mobile education were inclined to recommend activities created precisely by teachers and technologists, students are growingly motivated by their learning requirements, including those resulting from increased mobility and regular travel. Simultaneously, it is often proclaimed that mobile phones are especially suitable for promoting social contacts and synergetic learning claims with glaring pertinence for language learning. An analysis of publications like Wang et al. (2015) and Sonbul and Schmitt (2013) concerning Mobile-Assisted Language Learning (MALL) explored how greatly mobile phones and wireless technologies are being used to assist social contacting and synergetic learning. Significantly, they were concerned about writing and listening exercises and the potential for both synchronous and asynchronous communications concerning online and distance learning.

There has been a new shift in the Information and Technology (IT) world that is termed as a social network. A social network has been defined as a network referring to web tools that let people meet, communicate, and discuss ideas, facts, and interests (Storch, 2004; Smart, 2014). This has opened up new options for communication and collaboration among teachers and students. The usage of social networks has increased rapidly in everyday interaction. Social network applications like Twitter, Facebook, LinkedIn, and many more have been exceptionally liked and proven effective in the communication world (Ziegler, 2019). One latest super plus addition to this list of popular social networks is WhatsApp messaging app. WhatsApp is a cross-platform instant messaging application specially designed for smartphones though it can also be

used with Pads, PCs, and Laptops. Beside text messaging, users can also send images, links, videos, and audio messages to each other on WhatsApp (Wikipedia, 2013). It allows users to exchange messages using their internet connections.

Blake (2000) claimed that WhatsApp could be used to socialize with friends and learn a new language. She claimed that non-English learners could learn English better, faster, and have more fun by connecting to WhatsApp groups with fellow learners and teachers. The educators then were able to post short assignments and ask learners to accomplish them using one of WhatsApp's choices. In this way, learners were obliged to read and reply in English, which ultimately improved their English language. As WhatsApp was free, everybody having a smartphone was able to participate. Brodahl et al. (2011) argued that learners believed WhatsApp allowed them to express themselves openly in a free environment, consequently eliminating the embarrassment of low participation, which has been a characteristic of lectures in traditional classroom settings.

Converted Classroom

As part of a converted learning model, lessons are offered outside of the classroom setting through accessible technology, and class time is used for active involvement of students, cooperation with peers, assessment of their progress, and individual coaching and incentive from the teacher (Polio & Shea, 2014; Leko-Szymaska & Boulton, 2015). It has several educational advantages. Suppose technology is utilised to promote constructivist learning scopes and turn learners into designers, bosses, and leaders of their learning. In that case, the learning-beyond-classroom-walls method can have a significant impact on students.

Because they combine students' learning content with exclusive and synergetic engagements with educational resources in geographically distinct locations, mobile converted classrooms are ideal candidates for distributed synergetic learning. Online training allows students to control their learning by replaying and re-viewing parts (of video clips) they do not comprehend or fast-forwarding through material they have already understood. Contrastingly, face-to-face interaction in the classroom stimulates interactive involvement

through hands-on problem solving, conversation, and completion of specific tasks (Osokoz et al., 2018)

In the name of engaging students to learn and increasing contact time for engagement, it has been criticized for repeating old teaching methods behind closed doors (i.e., individual study, group work, assessments, etc.). By relying on speaker-centered instructional video tutorials and streaming detached, frontal instruction or recorded lectures intended for broad audiences, Dooly (2013) charges the converted learning classroom of abandoning the basics of cognitive and social constructivism (that emphasize cognition and learning through doing). Kessler & Bikowski (2010) and Nation (2013) alert teachers to exercise vigilance and high alert while selecting converted classrooms for a variety of reasons: absence of home access to emerging technologies by learners, it does not recompense for poor teaching, and the necessity for a cautious redesign of the learning atmosphere to meet up with learning requirements of divergent students.

Theoretical Framework

Distributed learning theory affords a human-centric viewpoint on learning that focuses on activity and utilization instead of technologies autonomously (Fischer & Konomi, 2007). The framework designed by Fischer and Konomi's (2007) for the elucidation of scattered intelligence emphasizes asking questions such as: Who is employing the mobile application? Why are they doing it? What are they doing? When are they capable of doing it? How do they perform it? Where

are they doing it? A deep understanding of human characteristics, motivations, learning activities, and methods, as well as social and cultural conventions as well as their established settings of interaction, is therefore required for distributed learning delivered through mobile applications

While technology plays an essential role in a dispersed learning environment (Jones (2007)), it is secondary to established context, social elements (such as interaction and recognition), and learning activities (Ellis 2014). Learning activities, communication, access to knowledge and people, appropriation, and community development are given special attention. Effective learning environments should develop knowledge about a wide range of topics, according to Egbert et al.(2002) & Nation (2001 & 2007) reveal that effectual learning atmospheres should foster knowledge concerning:

- The manners that learners acquire and the difficulties that they encounter (cognition)
- Interaction between students and information, professors, and classmates that is meaningful (collaboration)
- Easy access to experts, peers, and a wide range of information (communication)
- Students' familiarity with the use of technology to adapt learning experiences (computing)

The table below summarises the interpretive and analytical framework employed in this study.

Table 1: Analysis of distributed learning via Fischer & Konomi 2007 model

Category	Description	
<i>Human actor</i> (who)	who	who is using the medium technology: literacy level and work domain
<i>Human motivation</i> (why)	why	Self-directed method to attain certain knowledge
<i>Learning activities</i> (what)	what	Activities and what is done as well as pace and engagement and informed participation
<i>Situated contexts</i> (where)	where	Classrooms or other places
<i>Time designated</i> (when)	when	What time to do tasks and what preparations are needed
<i>Social practices</i> (how)	how	Social context & environment

METHODOLOGY

A virtual ethnographical approach was selected

to explain the pedagogical model of a mobile converted learning environment and students' experiences of its learning benefits. Virtual

ethnography includes the selection of interactive approaches by a researcher engaging in the field to record and document the first-hand accounts of participants' experiences (Fouchè et al., 2011). The researcher taught a second-year class of BA English degree program at Majmaah University where a group of disadvantaged students implemented WhatsApp to willingly discuss academic content with the researcher after hours (5-9 pm) in planning for the next lectures. The researcher is the main instructor of a course titled (advanced English401) where 35 students were enrolled. The two focus groups for this study comprised eight students from each class section. They were chosen based on their GPA (the least in the sections). The researcher explained to the students that they were chosen mainly to give them extra learning tools, and they were also told that their participation was optional and for self-development and no grades.

The student-teacher and student-peer communication on WhatsApp, which continued for one complete semester, included discussions and clarifications of complex grammatical structures assigned to them as assignments every fortnight. Although web metrics were not administered to analyze the participation rate, the postings per group indicated mediocre participation in several groups. Nevertheless, interactions were well-organized around questions students asked their groups and those asked their teacher. While the researcher specified at the beginning that the WhatsApp group should be used for academic purposes exclusively, few instances of student discussion about extracurricular activities and sharing local events, news, and jokes were evident.

Adopting ethnographic research, the ethnographer generally records the viewpoints of the informants where the communication takes place with the desire to study the cultural notions and produce a cultural portrayal (Fouchè, et al., 2011; Al-Ahdal, 2020). The researcher monitored WhatsApp mediated students in the two groups for one semester, where his role was:

1. To informally record the communication trajectory of the teacher-student and student-peer interaction on WhatsApp
2. To give help and guidance on demand to student inquiries

3. To deduce meaning from the available data (i.e., inquiries, discussions, questions, and answers) that learners generated via their interactions with their peers and the researcher

4. To formulate suggestions about upgrading the pedagogical model of the WhatsApp informative environment

5. To facilitate learning and encourage students to take the lead in their learning; and lastly, to set up one-on-one meetings during office hours to discuss things and explain difficulties.

Design of constructed student-centered classroom settings

Most disadvantaged students complained to the researcher about limited contact time and their understanding of complex grammatical structures during lectures. However, the researcher noticed that the learners were most prompt in responding to academic information shared over the class WhatsApp group. This motivated him to employ the application as a learning tool with disadvantaged learners. He then divided the participating 16 students into 2 groups. To safeguard the "anonymity" of participants and to spearhead scholarly communications and consultations, students were supposed to save their group members' cell phone numbers on WhatsApp messenger as their IDs. The size of the two groups made it easy for the participants to know each other well. Nevertheless, the researcher saved both the group members' names and their cell phone numbers to verify the participants' identities and trace the course of distributed synergetic learning.

The researcher typically delivered short lectures of ten to fifteen minutes duration on a topic via screencast accompanied by two grammar-related questions to both the groups to consult with their fellow students on WhatsApp. The researcher preserved his social attendance in the groups to trace the participants' interactions and scaffold the students when needed. As students prepared for the next day's classroom meetings, they used materials and conversations shared on WhatsApp as learning resources. Instead of introducing screencast ideas, the classroom sessions focused more on critical questioning by learners and group debates of replies that fellow students and the researcher contributed via WhatsApp. Inside the classroom, students were instructed to work in groups of three to four to

discuss and document their observations regarding online communication. After that, they shared their findings with other groups and reviewed the findings of other groups. Eventually, each group was designated a spokesperson to summarise their analysis of peer groups' observations. This practical method allowed all group members to participate and instruct their peers to improve intra- and inter-group communication skills.

Data Analysis

For example, in Table 2, the researcher downloaded all of his interactions with participants on WhatsApp messenger, printed them out, and then analyzed them thematically to produce topics, concepts, and categories (data mining). When conducting a thematic content analysis,

the researchers discover and categorize subjects through line-by-line examination and by comparing new data examples to already recognized categories and those reported in an earlier study, among others (Al-Ahdal, & Alqasham, 2020). A careful evaluation of the postings was based on the themes that emerged from the issues covered and the condensed messages in the postings. A logical framework, shown in table 2, was developed by matching these topics to the theoretical framework (Dobao, 2002; Bueno-Alastuy, 2013; Fischer & Konomi, 2007; Armnazi & Alakrash, 2021). Some of the categories that emerged were human variables, pedagogical inspirations, pedagogical tasks, learning models, and cultural and social norms. Themes and topics were derived from participant's notes taken during interviews.

Table 2: The Analysis of distributed learning via WhatsApp-enabled converted classrooms via Fischer and Konomi 2007 model

Who "human"	Gifted Students	Non-gifted students
Domain:	Learning-centered	Learning-centered
		<i>Themes: exchange of strings about readiness to use outside classroom platform "WhatsApp"</i>
When	Beyond class time	Beyond class time
Domain:	Time of preference for group	Time of preference for group
Pedagogical		<i>Themes: students show readiness to use non-traditional means of instruction at their own time</i>
Time		
Inspiration		
Where	Beyond class walls	Beyond class walls
Domain:		<i>Themes: students show readiness to use non-traditional means of instruction beyond classroom walls</i>
Pedagogical		
Space		
Inspiration		
	Control of their learning	Semi-control of their learning
		String: "I like the idea that I am learning by myself"
	Exposure to advanced content	Exposure to easy moderate content
		String: "at the very beginning I wasn't really into it but I picked up as weeks pass"
	Curriculum compacting	Easy base curriculum cover
		String: "I didn't expect we would cover all this material"
	High social & emotional needs	Moderate social & emotional needs
What		
Domain:		

Pedagogical Choices, Tasks & Activities	Flexible instruction	String: <i>"I felt those in the group as friends not peers"</i> More rigid instruction
	Clear progressive content	String: <i>"what I liked most was that every day we learn something different"</i> Needs for attention to cover content
	Rapid learning rate	String: <i>"material we covered was more than what we thought we can"</i> Slow learning rate
	Need for distributed learning	String: <i>"things for me weren't easy to follow maybe because it was a lot to cover"</i> Need for non-distributed learning
	Learning strategies according to style	String: <i>"...and I learned things through different methods not only the teacher"</i> Limited learning strategies
	Development of critical thinking, reasoning, comparing and contrasting	String: <i>"sometimes the same grammar is given to us with different methods and in context"</i> Development of understanding, basic thinking and reasoning
	Independent direct & regulate learning	String: <i>"sometimes it takes me a while to think and see how it goes"</i> Dependent learning
	Flexible, self-pacing, broader learning opportunities	String: <i>"in some cases I found myself teach and help other students"</i> Receive learning
	Relate to other students and establish teachers' connection	String: <i>"I started for first time find more lessons in the internet about the same grammatical rules"</i> Use simple linear learning with single effort & work alone
	Motivated, critique, evaluative, imaginative, creative, discoverer, and predicting	String: <i>"I feel like we are a family or a team with the teacher and I kind of liked the group and be my friends"</i> Less motivated and normally less critical, evaluative, creative, discoverer, and predicting

String: *" class became sort of fun"*
"I try to use what I learn in my talk when I go to hospital" *"I sort*

of see the grammar rules when I watch a movie"

Why	Questioning:	Questioning
Domain:	Critical thinking	Direct surface understanding
Pedagogical	Knowledge generation	Simple learning
Motivation &	Facts building	Knowledge storing
Learning	High pace learning	Low pace learning
Models	Problem solving	Information grasping
	Reasoning and creation	Easy & simple knowledge
	Discovery and prediction	Limited self- learning
	Student-centered process	Teacher-directed process

How		
Domain:	Conversation & engagement	Individual learning
Social &	Distributed learning	Single way learning
Cultural	Flexible scheduling	Set times for learning
Norms	Relate to life	Not much related to reality
		String: <i>"it is funny to see what we learn is some people's daily talk"</i>

INTERVIEWS

Interviews were organized in the 2nd semester of the academic year 2018/19 with 8 students to develop a precise pedagogical model that could promote distributed learning of disadvantaged English students and the educational gains of a WhatsApp-mediated learning environment. The aim was to guarantee the academic involvement of the disadvantaged ELLs as they felt estranged by the self-monitored education generally expected of them at the university level. The interviews continued for almost two hours and were organized in English Lab. These interviews were audio-recorded, transcribed carefully, and examined thematically.

FINDINGS

Pedagogical model of converted classrooms

The pedagogical model of converted classrooms required the inclusion of human actors (i.e., students, peer groups, and teachers) who collectively operated on educational tasks and activities through queries, inputs, and meaningful

involvement with learning resources. In the course of this study, the following distinct points surfaced, which will be thoroughly explained in the following sections:

- Deliberate cognitive learning of academic tasks
- Scaffolded & differentiated learning
- Social engagement and presence

The pedagogical model that involves human actors such as learners, teachers, and sometimes students' mates and peers are best recognized by effective implementation of converted classrooms where students do not get bounded by the classroom walls and hours, but learning is distributed according to their will, time and desire. Such type of learning usually includes short video-recorded lectures which learners watch via screencast succeeded by teacher-student and student-peer interactions on WhatsApp. A learning approach that requires students' engagement in genuine educational activities (like watching short video-

recorded lectures, peer group discussions, and critical questioning) is crucial in prolonged meaningful cognition and synergetic interaction between these geographically scattered students on one side and their instructor on the other side. However, effective student cognition required activities such as synergistic student-peer communication, authentic knowledge development, and complex problem solving to improve students' mastery of English grammar concepts. These additional factors are discussed in the sections that follow.

Deliberate cognitive learning of academic tasks

Though language acquisition theories vary in their acceptance of deliberate learning, it contradicts Krashen's (1989) view of language learning within a meaningful context with focus on meaning and not form. Some even went further like Dekeyser, (1998) to argue that languages can only be acquired if learned within an authentic language environment where deliberate learning takes learning into a more unconscious process. Krashen (1989) also argued that deliberate language learning would result in what he called "learned knowledge" **about** language and not the language itself or what he called "a language that can be used to show performance under certain conditions". Nation (2007), on the other hand, argued that deliberate learning of language is different from a decontextualized learning where the acquisition was implicit, and the learning was only procedural. They added that such deliberate learning provides an adequate and convenient way to learn languages as languages are form, meaning, and use.

As a matter of fact, participants of this study showed a considerable desire to learn on their own as suggested by this string (post):

Can you tell us more about what you liked best in learning via different methods and tools? (Teacher's post)

Well, to tell you the truth I really liked it when I feel that I am in no pressure and that I can read, listen, and share on my own. I know guidance from teacher was good but I feel I am learning by myself and I like it when I have to read and reread the messages in WhatsApp. I also like it when see the

grammatical rules explained in YouTube and other websites. (Student's post)

Scaffolded & differentiated learning

During the study, the researcher was able to scaffold learning tasks so that participants did not lose interest. From the very beginning, it was clear that what was needed was not differentiated learning but more scaffolded learning. It is true that the two words have something in common but still, for the purpose of this study, they have different connotations where differentiated learning deals with presenting learning tasks in different methods, scaffolding, on the other hand, deals with changing methods and material according to individual needs and their collective Zone of Proximal Development (ZPD). Education researcher Webb says, "The ZPD is the distance between what children can do by themselves and the next learning that they can be helped to achieve with competent assistance. P:56" One participant of this study explained his feelings about the different layers of instruction he experienced during the course of this study:

Good! Can you explain more on how you see different methods were used? (Teacher's post)

To be honest with you, I like most the fact that we learn in class and then in the afternoon I see your posting in WhatsApp and see other students postings and then I see you back and forth write to students and they reply. I really like it. If you remember sometimes I see other students intervene and write and some of them even record voice messages and send to us. (Student's post)

Can you give an example if possible? (Teacher's post)

Well hard to remember because it has been a few months now but I remember when you explain grammatical rules about best use of "past participle passive tense" I remember you have examples and I remember one student or two explaining in the group. Some students even send video from YouTube. I think we spent one of two hours during that day talking about it. I also remember that I kept taking examples from my classmates the next day. One student played a role exchange with another student to use such rule. It was fun!! (student post)

Social engagement and presence

Besides focusing on academic activities and group learning tasks, human actors were necessary to maintain a social presence and strategically calibrate the teacher as a mentor, resource advisor, and 'guide on the side' in the transformed classroom paradigm. During the initial phases of synergetic engagement, a scaffolding method that offered extensive instruction to learners was applied, followed by "fading" (i.e., gradually reducing the amount of aid as the learner's proficiency of grammatical concepts rose). This annoyed some students at first, but as the course progressed, this became less of an issue.

While the WhatsApp-mediated converted environment was intended to foster academic interaction through unidentified consultations, the pressure to interact frequently revealed academically disadvantaged learners' lack of understanding of grammatical concepts. Some inconsistencies in learning were evident in learner comfort in fictitious engagement as well as their sense of significance when they believed their postings were linked to ignorance (see the below posting). *I think we are all going to lose our way unless we get some help. Hehehe, I might just think that all I write is correct but we all know that I know very little (Student's post).*

For the pedagogical model of mobile converted classrooms, anonymous communication was essential to focus objective and realistic educational communications, and to avoid asymmetrical academic interaction produced by distinct student learning potentials and digital proficiencies. In order to maintain anonymity, the researcher built WhatsApp-based groups that required students to use their cell phone numbers as personal IDs. When kids who were shy or academically challenged tried to express themselves publicly online, they were safeguarded by anonymous interactions. As a result of an interview, a student admitted to lacking confidence.

I prefer WhatsApp [anonymous] communication because I can ask questions without feeling lesser to my fellow students. This is different from face-to-face communication sessions where

I feel myself exposed if I ask a question or express myself publicly (Student 10). Another non-gifted student agreed: "I feel shy to ask questions in face-to-face interaction therefore I would rather like to pose on WhatsApp, and if I ever skipped a class I could always catch up things done in class."

The learning gains of WhatsApp-enabled converted classrooms

Pedagogical inspirations and activities

WhatsApp converted classroom pedagogical inspirations and activities defined and influenced learning outcomes in these classroom settings. Student contemplation and practical application of knowledge were emphasised in the design, as were problem solving and on-demand learning, as well as the ability for students to study privately. In the classroom, instructional tasks included: understanding, defining, and explaining diverse grammatical concepts; critical questioning; complicated problem solving; and group debates. Learning advantages were not always obtained because of the demise of student-led interactions. The researcher's scaffolding technique involved non-interference in learners' engagements to allow them to analyze and generate answers. As a result of this research, a WhatsApp-based classroom has proven to be a highly effective learning tool, as detailed in the following section.

Student reflection

WhatsApp-based converted classrooms assisted interactions that encouraged critical reflection via synchronous discussions, which helped learners develop questions, responses, and analysis. Asynchronous interactions safeguarded learners from the urgency of instant responses, which is generally a feature of conventional classrooms:

"WhatsApp-based converted classes are self-empowering as they allow us to think carefully before answering questions." (Student 13).

"This setting gives me enough time to think about the video clips I watch, develop and change my answers" (Student 09)

Replaying video clips extended opportunities
“to replay sections or points I did not understand, unlike in a class setting where I am shy to ask or interrupt.” (Student 28).

Self-paced learning

It was possible for academically disadvantaged students to self-pace their own learning without the added burden of understanding everything a teacher taught by using short video-recorded lectures and WhatsApp conversations.

“With converted classroom I watch videos and complete my activities at my will, so it is easier to tackle the pressure” (Student 7).

“It need for personal effort and communication allow me to do work slow pace with more information available” (Student 16).

All these aspects point to the adaptable and self-management probabilities contained in productive usage of converted classrooms.

Problem-solving

Since English language study is a social problem-based discipline, the usage of WhatsApp allows learners to suggest resolutions to their community issues. Both the researcher and students drew and uploaded some tables on the group, which represented some grammatical structures relating to various situations, using them later for discussion. The ability to submit images of tables, open conversation, and collaborative learning structures were the distinct educational benefits of teacher-student and student-peer interactions via WhatsApp-enabled converted classrooms.

Discussion

Student-centered and context-aware models

This learning environment's model had to consider learner demands, realistic learning challenges, and socio-cultural context to be considered a credible pedagogical model for underprivileged English students. A vital aspect of the model was deciding on the lecture material to be provided and the available video technology that would aid in the delivery of this subject. When YouTube and Vimeo were not available, students utilized WhatsApp to watch video-recorded lectures. Furthermore, a constructively suitable converted model demands a realization that no two learners in a group are at the same stage of psychological evolution at the same time (Nielsen, 2011).

Results showed that academically disadvantaged students lacked belief and self-esteem in WhatsApp group participation due to interaction issues and fear of public utterances of their viewpoints. Regardless of some learners' lagging, anonymous interaction balanced interaction among these educationally disadvantaged learners.

"The learner-centered approach" requires a purposeful transition from a teacher-centered setting to one that allows students to select when and where they want to learn, according to Hamdan et al. (2013). In these flexible learning environments, class interaction time is allocated to examining the topic in greater detail and offering more prosperous educational opportunities. However, our results imply that student-oriented, context-sensitive models can be achieved by giving some weight to technology and highlighting human actors, instructional activities, and pedagogical incentives in the context of the learning process. By emphasizing the interface between human actors (teacher, learners, and peer groups), their teaching tasks and activities in context (anonymous synergetic interactions, cognitive processes, and sustained teacher-directed guidance), students' learning paths were enriched through I increased focus on genuine learning activities, (ii) increased student psychological growth, and (iii) empowerment of subdued students. From the viewpoint of distributed learning, outlining a student-centered learning context requires a modification of individual learners' social and natural environment to enhance their learning requirements, permitting new forms of educational support via omnipresent multimodal information, omnipresent multimodal messaging, and infinite content interchange (de Jong et al., 2008).

Continuous social presence

The model of mobile converted classrooms required the teacher to maintain a social presence to foster meaningful communication and balanced involvement from both groups. Social presence ensures a steady supply of support from teachers, tracking effective use of learning materials by students, minimizing parasitic attitudes entrenched in reticence, and protecting against insignificant interactions and the fear of participation. Therefore, for a mobile converted classroom to further distributed learning, they require to: furnish tools for

learning based on a 'scaffolding plus fading' context and independent presentation by learners (Fischer & Konomi, 2007) to promote the involvement of academically disadvantaged students. Such a model should also impart assistance to individual students and groups and community sections, utilize social creativity power established on knowledgeable participation (Fischer & Konomi., 2007), and contextualize multidisciplinary systems to person and task-specific settings. Our research required knowledge of students' psychology (internet access, self-regulation of behavior, and confidence in online communication) to guarantee meaningful and balanced involvement.

Social-constructivist learning

The educational benefits of a mobile converted classroom addressed learners' potential to improve knowledge-oriented learning, induce social expressionist learning, and create genuinely communicative environments. Learners reported that using mobile converted classrooms to enhance teacher-student and student-peer interactions allowed them to think about content and focus more on critical questioning. This discovery supports Marlowe's (2012) results that converted classrooms enhanced students' craving to investigate concepts they consider attractive in more significant detail alongside their overall semester grades. While the present research identified no noticeable advancement in learners' grades, suggestions of hanging about by some learners on WhatsApp co-existed alongside the manifestation of enhanced interaction in academic activities and tasks on WhatsApp compared to face-to-face learning. This reinforces claims that the learning outcomes of converted classrooms stand unconfirmed as there is a lack of substantial evidence on quantification of the practice or evaluation of its effect on student learning (Dooly, 2013).

CONCLUSION

There was an investigation into how mobile classrooms could be built to increase distributed collaborative learning for educationally disadvantaged kids, the learning gains that could be gained, and the learning hurdles that this intervention could overcome. A mobile converted classroom model was shown to be dependent on human

actors (unidentified interactions, substantial cognition, and the teacher's constant social presence), relevant educational inspiration sources, and learning activities (self-paced learning, problem-solving, and reflection). The latter also included the educational advantages of utilizing converted classrooms, whereas logical distributed collaborative learning was hampered by inconsistent connectivity, interaction delays, and finite self-discipline.

Acknowledgment

The author would like to extend his thanks and appreciation to the Deanship of Scientific Research at Majmaah University for funding this study under project No: R-2021-192.

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