

The Effect of Mobile Technology on Classroom Dialogism: The Case of EFL Learners and Tablet

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Abstract: *Over the last few years mobile assisted language learning has acquired substantial concentration in the pedagogy which led to a significant change in the classroom roles and talk. The present study sought to investigate the influence of tablets with preinstalled interactive book on the dialogic teaching in EFL classes in Iran private language institutes. Following a mixed-method design with triangulation and using Reznitskaya (2012) modified Dialogic Inquiry Tool on study of a total of 160 students and 8 teachers for 480 hours, findings showed that such environments both boosted via grouping features and discussion enhancement and inhibited via troubleshooting issues and isolating students in tablet aided classrooms.*

Key Words: *dialogic inquiry tool, dialogic stance, dialogic teaching, Iranian classroom interaction, tablet, teacher roles, MALL*

1. Introduction

Introducing ELT materials accompanied with interactive books including active teacher book, active student book, and active TV book to EFL market have prompted some English language institutes in Iran to incorporate the use of mobile assisted language learning (hereafter, MALL) technology in the form of tablets in order to stay up to date with the ever-changing ELT market. Three English language Institutes that are the focus of this study tried to facilitate mobile learning by providing both teachers and students tablets with related Top Notch active book program installed on, i.e., teachers received tablets with preinstalled active teacher book and students received tablets with preinstalled active student book. Such an enormous change in ELT pedagogy has motivated the study to investigate the nature of teaching and learning in MALL and its type of classroom interaction.

The related literature on MALL cited benefits as supplying more repetition to help reading and listening skills, boosting vocabulary via providing audio files and online thesauri, and offering preset tests and practices to help students' self-study in their own time and space (Oberg & Daniels, 2013). Digital aided classes also provide opportunity to change teacher's role to a facilitator (Stillar, 2012) that can influence the nature of classroom talk and interaction (Alexander, 2005; Barnes, 2010).

Talk is the most permeating in its use and forceful in its possibilities among all the other tools for cultural and pedagogical mediation in human evolution and learning (Alexander, 2008) and it is the core on which dialogic teaching is located (Barnes, 2010; Mercer, 1995, 2000). Dialogic teaching approach controls the power of talk to motivate and stretch learners' thinking and progress their learning and understanding (Alexander, 2010). Most of the studies related to the role of such a fundamental part of classrooms are confined to UK primary classrooms and little studies have tackled the issue in EFL contexts (Higham, Brindley, & Van de Pol, 2013) and also little studies have done on the role of mobile learning technology in increasing or decreasing dialogic teaching in EFL classrooms (Masters & Yelland, 2002; Yelland & Masters, 2007). As such, this study focused on the extent of providing opportunities for dialogic teaching in EFL tablet aided classrooms, if any.

2. Literature Review

MALL can be defined as Hockly (2013, p. 80) states, "learning with handheld devices such as mobile touchscreens and tablets". In a study by Oberg and Daniels (2013) on the influence of a self-paced student-centered MALL method on language learning to bring content in an ESL context results showed that students were more motivated and employed, and being able to recall upon material outside the class allowing more flexibility; though teacher input was of necessity.

Reviewing growing MALL tendencies on the nature of classroom, Stillar (2012) notes that mobile technology positively contributes to learning via providing memory of the newly touched on materials for a longer time and motivates learners to become more engaged in their process of learning. He points out that using MALL method makes teacher more of a facilitator that arranges lessons' units and guides and supplies related materials while he/she monitors groups in the class.

The concept of dialogic approach dates back to 'Socratic Dialogue' (Doukmak, 2014) which focused on motivating learners to combine prior and new knowledge to generate arguments.

Alexander (2005) views dialogic teaching as a dialogue creating tool which purposefully develops learners' understanding through consequence of questions and answers, and feedbacks and feed-forwards. Mercer (2000) notes that talk quality in class would help to cause the progression of thinking and communicative abilities. In the same vein Barnes (2010) states, talk in dialogic classes is not mere about 'right answerism' but a tool to 'hypothesize, explore, debate, and synthesize'; so that, talk gains power to redesign knowledge, facilitate learning, and make learners ready for an intricate world with many occasions when rational choice is required (p. 7). Dialogic teaching requires teachers to react to learners' answers in an upper grade and also it requires a whole class communication in which there is a significant demand in shift from being knowledge oriented to understanding oriented (Myhill & Warren, 2005). However, dialogic teaching is not enough per se to produce effective talk in the class and it should be accompanied with a talking and listening strategy recognized as 'dialogic stance'.

Dialogic stance is where talk patterns disclose discourse space for examination and diverse views (Boyd & Markarian, 2011). So, teachers need to be adept in providing lessons' goals, patterning exploration acts, and speculating with students (Chappell, 2014). To be in the same boat, students also must be trained to be prepared and eager to interact in class talk in an appropriate manner, i.e., they need to feel that their viewpoints matter (Haneda & Wells, 2008). Thus teacher's responsibility in creating such atmosphere is of great importance.

Though it should be mentioned that, anticipations will control the range to which a teacher or a learner has a dialogic stance. Higham, Brindley, and Van de Pol (2013) conducting a meta-analysis of why dialogic teaching research inclines to be carried out in primary rather than secondary schools, found that the main reason is due to more dialogic stance of primary schools teachers and students than secondary school teachers and learners. The interesting point in their study is that students of their research come from a primary or secondary context in which dialogic teaching does not practice (Norton & Syed, 2003), thus, learners had certain anticipations about their role and the role of the teacher, which can prohibit a dialogic stance.

Prompted by the theoretical and methodological problems in this particular context, the present study is going to discover how and in what extent interactive book preinstalled tablets aided classroom and dialogic stance come into interaction to provide or inhibit opportunities of dialogic teaching in EFL context. Thus, the following general questions can be raised:

1. How does the use of tablets with preinstalled interactive book in the classroom create opportunities for dialogic teaching?
2. How does the use of tablets with preinstalled interactive book in the classroom inhibit opportunities for dialogic teaching?

3. Method

3.1 Design, Context, and Participants

Following a mixed-method design with triangulation this study was carried out in three English language institutes located in Ahvaz (one of Iran's metropolis). In these institutes Top Notch book series by Pearson Longman including active books for teachers and students are used for EGP courses. All the language learners in order to pass the course and go to higher stage needed to attend 40 sessions (each 90 minutes) to complete two semesters on Top Notch 3A and Top Notch 3B course books in which preinstalled active book tablets were used by students and also all tablets were connected to teacher's PC in front of the class using a domestic software designed for Sky Language Institutes.

In order to satisfy the study purpose, 8 classes were randomly selected based on students' age, course, gender similarity, and teachers' academic and proficiency level similarity where participants attended their class for 4.5 hours per week. A total of 160 students (80 males and 80 females) aged 17 to 22 and 8 teachers (4 males and 4 females) aged 35 to 43 that hold M. A. in ELT with more than 6 years of experience in the field were involved. Both students and teachers were from an Iranian nationality and the total hours in which each participant was being under observation were 60 hours that is 40 sessions for each class and a total of 480 hours of observation for all participants. In order to not violate ethical consideration of research and institutes, it was made clear to all 168 participants that they were free to withdraw at any time and they did not have to agree to be audio recorded. All 8 teachers agreed to be interviewed as a follow up.

3.2 Instrument

The instruments used for the purpose of this study was an observation procedure along with audio-video recording of the classes for all participants which were followed by transcription and re-transcription (to increase the reliability) of videos using rich interpretation (i.e., researchers consulted the context in which interactions happened to determine their nearest to real cause and to dissociate unrelated factors) and Dialogic Inquiry Tool (Reznitskaya, 2012). In the process of

observation, researchers took notes on the nature of the class talk, activities that teacher and students were involved in, and timing of each part of lesson themes. Then all 8 teachers were interviewed for 30 minutes and shared their viewpoints on the nature of teacher talk and its possible correlation with use of preinstalled active book tablets.

3.3 Procedure

In order to analyze the converted audio notes, the study utilized the Dialogic Inquiry Tool (Reznitskaya, 2012) (hereafter, DIT), which is a framework to rate the class talk from monologic to dialogic regarding the specific indicators of *authority*, *questions*, *feedback*, *meta-level reflection*, *explanation*, and *collaboration*. To be in the same direction with the focus of the study, i.e., the relationship between use of preinstalled active book interactive tablets and dialogic teaching, researchers employed *use of mobile technology* indicator (see Appendix A) to examine such features of lessons as whether students worked individually or in groups with tablets, whether tablets encouraged discussion or individual work, whether the discussion around the tablets was content-related or technical-related. Thus, DIT modified to satisfy the study and to include predetermined questions according to results of the notes' analysis. Alexander (2005) distinguishes teacher talk and learner talk which nicely depicted in DIT typology used so that, authority, questions, feedback, and meta-level reflection relate to teacher talk, explanation and collaboration pertain to learner talk, and use of mobile technology applies to both teacher and learner talk with reference to the mobile technology used in given classrooms. Analysis of notes focused specifically on lexical items and the structure of the talk. The logic behind using such a framework was the capacity of DIT typology to show the main characteristics of dialogic teaching and to provide a rating scale to measure the extent of such characteristics. Though, the typology showed that all lesson parts were not necessarily dialogic but also there were monologic stages as well (Jones, 2010).

After all transcriptions and note were rated using the modified version of DIT, to enhance the reliability of rating process (Adcroft, 2011; Richards, 2003) notes and transcriptions went under second rating round by each researcher separately then results compared and discussed. The iterative spiral analyses and negotiation process revealed that the modified version of DIT had advantages to the original one such as, removing subjectivity of indicator by posing related questions and considering research setting, in a way that reliability of findings were more supported. To triangulate the results that obtained from data and follow up interview, the study

used a quantitative method to analyze frequencies of occurrences of particular patterns of language use in the class and interviews (Mercer, 2010).

4. Findings

4.1 Tablet's Encouragement of Opportunities for Dialogic Teaching

From observation and follow up interview it was evident that tablet creates opportunities for dialogic teaching into two ways. First, it offered a host of *grouping activities and communication designs* and second which is the offspring of the first one, it *accelerated communication* in the class. Preinstalled interactive book required students to carry a lot of group activity, collaborative activity, and individual activity in which teacher monitoring was an important part. Role play, word game, movie time, and karaoke text were typical activities in which students required to work individually with their tablets. As students typed their answers, the teacher could see them, read them, and gave feedback on them via the same online software that students' answers transferred to teacher's PC. At the same time students discussion on their answers and teacher's feedback was a sign of collaboration between students in their virtual group which was facilitated via a domestic software exclusively designed for Sky Language Institutes and preinstalled by the language institute on their tablets. Tablets inspired individual work due to its nature of being a personal devise so that in each class there was about 15 minutes (16.66% of whole class time) in which students worked on their own individually with their tablets. In such silence time, teachers showed a lot of monitoring and supporting activity which in turn raised teacher-student interaction. Tablet created an individual space for students which may not be possible when using MALL controlled by the teacher. In this individual territory, the teacher can have private exchanges with students, and can isolate and work on specific problems of that student. Discussion is a central part of dialogic teaching and tablet with its preinstalled applications and visual aids which lent themselves to games and other competitive activities, is the booster for discussion activity in the class. For example, during the discussion, the teacher asked questions about the use of particular grammar points, and students were expected to explain why they thought the grammar was correct or incorrect.

4.2 Tablet's Inhibition of Opportunities for Dialogic Teaching

Dialogic teaching was also prohibited by problems and certain claims as a result of using tablet. For example, there were times of *troubleshooting* (both in terms of the device and applications) in the class which engaged both teacher and students. Common issues were tablets not

responding, network problems, and tablet being out of charge. Such issues are unavoidable, but troubleshooting sessions took about 10 minutes or 11.11% of each class time. So time to time the teacher had to give technical assistance rather than pedagogical assistance (Yelland & Masters, 2007). This means that using the tablet as a lesson aid has influence on the chances for dialogue and learning. The fact that tablets can cause technical problems was admitted by all 8 the teachers.

Individual working with feedback from the teacher on a one-to-one interaction is one of the results of using tablet; however, observations and interviews showed that individual work can also dominate the class time with leaving low chance for dialogue of any sort in the class. *Isolated* students fascinated by their device were highly noticed during observation. Such an environment is not contributive to a dialogic class with its group activity and discussion.

5. Discussion and Conclusion

The existing literature on dialogic pedagogy is exclusively limited to primary and secondary school (Alexander, 2008, 2014; Mercer, 1995, 2000; Michaels, O'Connor, & Resnick, 2007), though this study shows that foreign language leaning context is also a potential environment for such a pedagogy. The study reveals that MALL in an EGP context can both boost and inhibit occasions for dialogic pedagogy. Tablet offered a host of *grouping activities and communication designs* and second which is the offspring of the first one, it *accelerated communication* in the class. Dialogic teaching was also prohibited by *troubleshooting* and certain claims as a result of using tablet. Also it is of high interest that *isolated* students fascinated by their device screen is not contributive to a dialogic class. In MALL context therefore, it is necessary that the preinstalled application and the kind of task is programmed to create more interaction (Mercer, Fernandez, Dawes, Wegerif, & Sams, 2003).

The main the implications of this study could be the change in the dominant context of dialogic teaching from primary or secondary schools to higher levels of education. Other implication which is ignored in most previous studies in bringing the concept of dialogic stance into our final calculations of impact of MALL in the classroom. Tablet is only a device that can help the quality of teaching or learning in the class like any other tools as digital whiteboard or personal computer and should not viewed as an ultimate cause of change and revolution in the pedagogy. Dialogic stance is what matter in comparison with the device used in the course of teaching. Observations and interviews both showed importance of dialogic stance to create or inhibit

opportunities for dialogic pedagogy and this could be a point for further studies in this realm in terms of culture and socio-cognitive features of students, teachers, and educational policy.

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Appendix A

Modified DIT Indicators (adapted from Reznitskaya, 2012)

Indicator	Ratings		
	Monologic		Dialogic
	1, 2	3, 4	5, 6
Authority			
Who has control?			
Who nominates?			
Who asks the questions?			
Who shapes the discussion?			
Who decides on the turns?			
Questions			
What types of questions are asked? Recall? Factual? Open-ended?			
How challenging are the questions?			
Do the questions target higher order thinking?			
Do students critically evaluate and analyze?			
Feedback			
Does the feedback invite students to further develop their answers?			
Does the teacher inspire further thinking?			
Does teacher ask “how” questions as feedback/follow-up?			
Meta-level reflection			
Does teacher relate student answers to each other?			
Does teacher attribute students’ ideas and questions to specific students?			
Explanation			
Do students explain what they think and why?			
Do students have long responses?			
Do students use personal positions e.g. I feel, I think?			
Collaboration			
Do students just report, or do they collaborate with each other’s ideas?			
Do they react to each other’s ideas?			
Do they respond to others’ ideas in the class?			
Use of MALL technology			
Do students work on their own with the mobile device, or does the mobile device support group work?			
Does the device encourage quiet work or discussion?			
Does the teacher ask/answer questions related to the topic, or related to technical problems?			
Do students ask content-related questions or technical questions?			

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