



Augmented Reality and Situated Language Learning: Redefining the EFL Classroom Experience

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Abstract— *The growing use of digital technologies in language education has renewed interest in learning environments that support meaningful and contextualized language use. Augmented reality has attracted particular attention for its ability to link classroom learning with real-world communicative contexts. This study explores how augmented reality supports situated language learning in English as a Foreign Language classrooms and how it influences classroom interaction and learner engagement. Based on the principle of situated learning and sociocultural perspectives, the study examines AR-based classroom practices that embed language use within interactive and context-rich activities. The findings show that augmented reality encourages learners to use language as a functional and social resource, leading to greater participation, increased learner agency, and enhanced communicative and pragmatic competence. The study highlights the potential of augmented reality to reimagine the EFL classroom as a space for authentic and engaged language learning.*



Keywords— *augmented reality, situated learning, EFL classrooms, classroom interaction, and technology-enhanced language learning*

I. INTRODUCTION

The teaching of English has been greatly influenced by the technological innovations that have made the English classrooms very different places day by day. The traditional classrooms relying heavily on books to develop the English language have gradually moved, although slowly, to the ones where the student and teacher interaction is the main focus. Still, there is a new idea that has been gaining momentum and that has the potential to bridge the gap between the two worlds of classrooms and actual language use. This is augmented reality technology.

Language learning research has continually underscored the necessity of incorporating a contextual aspect in communication for the achievement of a successful outcome. The skills of a language are not acquired through the teaching of grammar and vocabulary only, but rather, the use of language is learned through interaction with a situation that necessitates the employing of language correctly and effectively. However, this is not the case

with EFL teaching since there is no exposure to situations where the English language is being used in real life. But AR can help solve this problem by creating a real-life situation in the classroom where learners of the language are exposed to the way the language is being used in real life.

The use of augmented reality might transform the interaction of the teachers and students in the classroom as well as the students' roles. Through the AR apps, learners usually take responsibility for the content exploration, problem-solving, and peer collaboration activities even more than before. This change transforms the traditional teacher-centered interaction pattern and brings in learner agency, participation, and experiential learning. Nevertheless, teachers still act as support in the role of facilitators, participating in the interaction and assisting in the process of meaning construction instead of only teaching the language. Furthermore, the above-mentioned changes highlight the enormous influence of augmented

reality on pedagogy in the sense of not being merely a technological breakthrough but rather a complete reorganization of language learning in the classrooms.

The present study sheds light on the implementation of augmented reality within the framework of language education in the EFL classes. Theoretical frameworks of situated learning, sociocultural theory, and multimodal discourse analysis were used to analyze the impact of augmented reality-mediated activities on classroom interaction, student engagement, and contextual language use. The study of actual classroom practices is expected to enrich applied linguistics by revealing the transformation of EFL classroom experience with augmented reality and by indicating the new overlaps in the areas of technology, context, and language learning.

II. LITERATURE REVIEW

The great potential of technology in the process of learning the second and foreign languages has been pinpointed to the factor of contextualized and meaningful interaction, which is the most important in turning the learners' language abilities to issues. The early works in applied linguistics pointed out that the process of learning a language is much easier and faster for the learners if they are put into real communicative situations instead of having isolated drills (Hymes, 1972). The above-mentioned situation has been recognized in subsequent work on communicative competence and language teaching methods that employ communication through the use of digital technologies in the classroom to simulate real-world language use.

One of the developments in this area is augmented reality, which has gained acceptance as a language learning tool. Azuma (1997) cites augmented reality as a technology that integrates the real and virtual worlds in real-time interactions and within a three-dimensional space. In the case of AR as a learning tool, it has been revealed that it promotes learner engagement to a higher extent by turning the learners' surroundings into the content area. Research reports suggest that tasks involving AR that are designed for language learning and teaching lead to a higher level of participation and longer periods of attention as compared to the learners who interact with the language through multimodal and experiential activities (Dunleavy, Dede, & Mitchell, 2009).

The situated learning concept grants a robust theoretical basis for appreciating augmented reality's teaching worth. He & Wenger (1991) said that learning is social and takes place through engagement in significant practices in specific locales. This view questions the traditional setups of the classroom that regard the language as knowledge

stripped of context. In EFL classes, Augmented Reality immerses learners into social practices that are only mimicked, and thus learners use language as in the real communicative situation (Kukulska-Hulme, 2020).

Sociocultural theories of foreign language learning stress considerably the role of mediation and interaction in the growth of language proficiency. Vygotsky (1978) conceptualizes learning as a dynamic process where social interaction and the use of cultural tools determine the level of the learner. AR is a mediational instrument that alters the teacher-student interaction by presenting visual, spatial, and interactive resources that facilitate the understanding of the learners' messages. The use of AR is considered to bring about collaborative learning and gradual understanding through support, especially if the interaction between peers is facilitated and guided participation is used (Lantolf & Thorne, 2006).

From a discourse-oriented standpoint, multimodality is a key factor in AR-mediated learning. Kress (2010) maintains that meaning is created through a combination of semiotic modes that include, among others, language, image, gesture, and spatial arrangement. Augmented reality environments are perfect examples of this multimodality; hence, learners are interacting with visual overlays, spoken language, physical movement, and digital prompts at the same time. Adopting multimodal discourse analysis, researchers have proven that such environments can enhance learners' communication skills and at the same time facilitate the merging of linguistic and non-linguistic meaning-making (Jewitt, 2014).

Research conducted in schools has also tried to determine the interaction patterns of learners and their roles through the lens of technology. Walsh (2011) points out that classroom interaction is a main factor that determines the kinds of learning opportunities and that the changing of interactional organization has a big impact on learner participation. In classrooms utilizing AR, students often assume proactive roles, initiating interactions and collaboratively negotiating meaning. This transition is contrary to the traditional teacher-centered models and is in line with the learner-centered pedagogies that value and promote the students' experiences and learning.

The research in pragmatics also lends support to the claim that context-rich learning environments are of immense value. Yule (1996) refers to pragmatics as the study of meaning that is conveyed by a speaker and comprehended by a listener, thus pointing out the significance of context in the understanding of language use. Activities that are based on AR provide the learners situational cues that increase their awareness of the pragmatics involved, namely, the giving and receiving of polite requests, the use

of appropriate responses, and the determination of interactional norms. This grounding in context is especially important in English as a Foreign Language (EFL) settings where the learners' exposure to authentic pragmatic input is restricted.

When AR technology is applied to language education, it brings about good effects both for vocabulary acquisition and for the development of communicative competence. According to research carried out by Ibáñez and his team (2014), the students who made use of the AR applications had better memory performance and were more motivated than the students who used classical materials. Liu and Tsai (2013), too, endorse the claim that AR facilitates experiential learning since it allows the learners to manipulate the content in a manner akin to actual language use. The studies have resulted in a conclusion that AR is a significant factor in the co-advancement of both cognitive and emotional factors in the process of language learning.

Although this technology could be a determining factor in reaching success, it is still critical to pay a lot of attention to the design of the teaching process. Warschauer (2004) points out that technology can only support and enhance the learning process if it is integrated with effective teaching practices. If not well defined, AR has become useless in the learning process and appears to be an interesting gimmick. The argument underlines the requirement of research that not only looks at the results of the learners but also at the discourse and the interaction in the classroom.

In summary, the literature indicates that augmented reality is in line with the modern theories of situated and sociocultural learning and, at the same time, provides a range of new avenues for the use of multiple modes and the development of pragmatic language skills. However, there is still a need for studies that focus on the discourse aspect and investigate the impact of AR on classroom interaction and learner involvement in EFL settings. The aim of this current research project is to fill in the gaps which have been overlooked, analyzing and discussing augmented reality as a teaching- and interaction-enabled tool in the EFL classroom.

III. THEORETICAL FRAMEWORK

The current research is based on a theoretical model that integrates situated learning theory, sociocultural theory, and multimodal discourse analysis to investigate the impact of augmented reality on EFL teaching. These approaches are attractive since they are all considering language learning as a socially embedded, contextually dependent process and not as the acquisition of isolated linguistic forms. Together, they render a strong framework

for the analysis of augmented reality's role in mediating interaction, meaning-making, and learner's participation in the institutional educational settings.

Situated learning theory provides the main perspective to explain the educational uses of augmented reality. Lave and Wenger (1991) maintain that learning is realized through participation in meaningful social practices and that knowledge is always context-specific. Thus, language learning is at its best when learners become involved with the language through real-life activities rather than through abstract exercises. Conventional EFL classes do not offer learners many such opportunities. The introduction of augmented reality into the classroom helps create such opportunities, allowing the learners to be in different places and situations while they are using English to communicate.

In essence, situated learning and augmented reality are closely related since they both focus on context and learner participation. The learners actively use the language in a meaningful way through AR-based tasks like navigating a virtual space or superimposing digital objects over real ones. By these activities, the learners are put in the role of active participants and ontologically of input-receiving persons, which is very similar to the idea of legitimate participation by Lave and Wenger. Such a process of gaining communicative competence through immersion in contextual tasks is very slow, and it includes more than just the grammatical accuracy, which is the case with the awareness of the meanings and the interaction.

The development of this framework through sociocultural theory is very beneficial, as it emphasizes the role of tools and social interaction in learning. Vygotsky (1978) underlines that cognitive growth comes through communication with people and the use of cultural objects that make meaning. In this research, augmented reality is regarded as a mediational tool that changes the way of language, peers, and instructional content interaction. AR applications come with a scaffold of visual, spatial, and interactive resources that help understand and support learners as they perform communicative tasks.

Activities that use augmented reality technology from a sociocultural perspective call for collaborative learning and guided participation. The learners generally help one another to decode visual signals, come up with solutions, and perform the tasks. They also talk among themselves and even sometimes pull in the teacher, thereby making language development happen in the area of the learner's control. Second language acquisition research says that such interaction leads to negotiation of meaning, and the learning process is deepened, especially when a peer or a teacher with the offering of scaffolding that is timely

supports the learners (Lantolf & Thorne, 2006). So, in this context, augmented reality is not a substitute for social interaction but rather increases its value by enabling communication through shared focus points.

Tools of analysis offered by multimodal discourse analysis are sufficient to investigate the issue of meaning construction in augmented reality worlds. Kress (2010) puts forward that communication is always multimodal and indicates that meaning manifests through the pairing of language with non-verbal signs like pictures, gestures, and spatial arrangement. The virtual reality world during the learning process showcases this idea, as the students are engaging at the same time with speaking, seeing pictures, moving, and the computer prompts. Using a combination of modalities, this research was able to probe into the deep meanings of not only the verbal.

In order to communicate among mixed-language students, the use of AR tech in the classroom is a great help. A student, for instance, can speak and, at the same time, indicate a virtual object or do the actions demonstrated on the screen. This communication via different modes reinforces the very close bond of language, movement, and vision. Jewitt (2014) states that recognizing this multimodal communication is the key to entering digitally mediated environments for learning comprehension. The present study adopts a multimodal discourse analytic method to examine the impact of augmented reality on classroom communication and the provision of different types of communication for the students.

The integration of these two theoretical perspectives collectively positions augmented reality as a significant technological innovation in educational settings. Additionally, it is regarded as a medium for teaching and an interaction that mixes language learning with real life, promotes social conversations, and affords an opportunity for the application of different ways in meaning-making processes. This integrated model is the basis for research on the impact of the text and time changes in the EFL classroom as a result of the alteration of student roles, interaction styles, and chances for practicing the language in a natural way.

IV. METHODOLOGY

The research makes use of a qualitative method to investigate the impact of augmented reality on language learning and communication during EFL classes. Qualitative inquiry is beneficial for the researcher since it allows the study to observe the interaction processes, how meanings are made, and the different student participation levels instead of being confined to fixed criteria for measuring learning outcomes. The approach used in the

research is mainly on-the-spot classroom activities, which, in turn, result in an all-embracing understanding of how augmented reality is incorporated into everyday teaching practices.

V. ANALYSIS AND DISCUSSION

The interaction in the classroom shows that the use of augmented reality greatly influences the way language is perceived and applied in EFL classes. The students treated language as a resource for social interaction, not as a foreign and distant thing. The tasks performed through AR located the language use in the most significant contexts, thereby allowing the learners to associate the different linguistic forms with the respective actions, places, and purposes for communication. It is the same with situated learning theory, which states that learning is the outcome of participation in context-bound activities instead of abstract instruction (Lave & Wenger, 1991).

A common theme that runs through the data is the fact that the AR tasks could elicit both spontaneous and prolonged learner talk. During a location-based activity, the students scanned classroom posters that represented everyday environments, such as a café or a supermarket, and participated in long peer interactions without any prompting from the teacher. The students decided on vocabulary, corrected each other's utterances, and produced the meaning together. When a student was asking, "How much is this again?" while directing to a virtual product, that triggered peer answers and reformulations, thus showing how the AR creates conditions for the use of language in a natural manner that is influenced by visual and situational cues. These interactions are in line with Vygotsky's assertion (1978) that learning is mediated through social interaction and common tools.

Augmented reality has an effect on the way participation is structured in the classroom. The teacher and students interact through questioning and answering. These activities with AR modify this context, making the students a focal part of the discussion. When there was a virtual receptionist participating in a role-play activity, the students took turns controlling the discussion through questions for clarification, making and unmaking requests, and even answering unexpected questions. The teacher was around, but her interference was very rare; she just acted as a supporter when communication was not successful. The switch of control over the interaction encourages learners to own their learning and is consistent with sociocultural theories, which stress participation that is guided rather than direct teaching (Lantolf & Thorne, 2006).

Additionally, it is revealed by the data that AR is a facilitator for the creation of pragmatic competence by placing language usage in socially recognizable situations. The learners practicing requests in AR scenarios used polite forms such as “Could you help me with this?” and “Would it be possible to come in early?” consistently, which indicates their sensitivity to the context and interlocutor's roles. Such pragmatic awareness is very hard to acquire in traditional classrooms where language is completely divorced from the situational meaning. Yule (1996), on the other hand, says that pragmatics concerns the context's impact on meaning and the speakers' understanding of it. The augmented reality (AR) settings let the students observe and engage with the contextual signals, and thus they can live pragmatics as their subject matter instead of merely scholarly work.

From a multimodal perspective, meaning-making in AR classrooms was not confined to oral language. The learners consistently integrated verbal expressions with non-verbal cues, gaze, and whole-body movements while dealing with the digital objects. For instance, pointing to a virtual map while explaining the directions or walking towards a virtual landmark showed understanding and interaction. Kress (2010) supports the view that communication is of a multimodal nature, and he states that the integration of various semiotic resources is what gives rise to the meaning. The AR classroom is the best classic example of this if it allows the learners to synchronize language with the physical action, which in turn boosts their involvement and understanding.

Another key finding is that of learners' motivation and emotional engagement. The study showed that students were more eager to do AR tasks, so teachers should switch to traditional tasks. Learners were also observed to be displaying curiosity and enjoyment, which in return took the form of more language use that is riskier. Emotional engagement is in line with the findings in the previous study, where it has been argued that the use of such immersive technologies would not only be able to attract the attention of the learners but also sustain the attention within the classroom scenario (Dunleavy et al., 2009). However, such motivations were not superficial but were more related to the process involved.

Despite the positive outcome, the study prioritized educational design as a crucial factor. When the AR activities perfectly aligned with the learning goals and the teacher provided the necessary support, they were most effective. The classes where communication was not fulfilled through AR experienced fragmented learning engagement, which was not very productive on a linguistic level. This study supports the statement made by Warschauer (2004) that learning should not be dependent

on and should not be limited to technology and should be integrated into effective learning. The potential of augmented reality is high, and it should be used as a tool for mediation.

The data analysis indicates that augmented reality enhances the EFL classroom by shifting interaction dynamics, making language use more meaningful, and expanding learners' language usage through augmented reality tasks, which helps them understand language as a social pragmatic activity with multicanonical affordances. Findings from the research affirm the importance of using augmented reality to enhance language learning, from context-washed to context-rich teaching.

VI. FINDINGS

Research results show that augmented reality used in EFL classrooms is in no way similar to the classical language learning and teaching process. The novelty of the location and the real virtual situations created during classes encouraged students to actively participate in their communication with each other while engaging in these tasks. In fact, they were continuously speaking English in order to explain, communicate with each other, find out what the best solution is, and finally, achieve their targets in communication. Just these tasks have created a situation for language activity, where students have achieved their language development, depending only on their interaction with each other, without any need for teacher participation in interaction. Even the visual-spatial characteristics assisted, both in understanding and in utilizing polite language, as well as for situations where they should respond via information giving and context-based reaction. That is, students felt more confident, wanting to take part in all activities, which is a clear indication that AR is a factor for positive change, both for communicative language competences as well as for the empowerment of learners.

On the other hand, it is clear that mediated through instructional design and teacher participation, augmented reality has a pedagogic potential. The nature of engagement with AR was very much aligned to the learning objectives, and the discourse was not just sustained and ongoing but was linguistically vibrant too. On the other hand, in the case of learning objectives not really evident from a communication discourse perspective, it resulted in an environment where there existed a silent learning environment, and language use was restricted to large lengths as well. The data clearly indicates that augmented reality is basically a mediation tool and hence far superior to an autonomous learning solution. The data suggests very clearly that when well

utilized, augmented reality is not only democratizing the EFL classroom by changing the dynamics of interaction between teachers and learners, as well as amongst the learners themselves, but also fostering an environment where language use is promoted and focusing on a learner-centered approach towards learning.

VII. CONCLUSION

This The research has delineated the role of augmented reality technology in redoing the English as a Foreign Language (EFL) classroom with particular reference to the situated learning theory of language. Looking at the interaction in the classroom rather than just at technology, it becomes clear that augmented reality changes the definition of the language, space, and people in the classroom in a very positive way with respect to learner involvement. The environment created by AR for language learning is very similar to the one in a physical classroom, where an interactive process with the surroundings forms the basis of language being used, rather than practice through decontextualization. Thus, the AR setting wipes out any boundaries between learning language in class and using it as presented in reality.

The study, which was based on major theories and methods like situational learning theory, sociocultural theory, and discourse analysis from a multimodal perspective, has identified augmented reality as an efficient mediational tool. The learners do not sit back just to receive the input in the language form but actively participate in almost all aspects using English, from task completion to meaning construction, even to supplementing the group work with peers. The above phenomena show a paradigm shift in the class dynamics where the learners themselves are positioned to exercise greater control over the communication task and become responsible for the communication itself, while the teacher acts more like a mediator in the guided conversation instead of initiating all the conversation. All the above phenomena indicate the significance of augmented reality in the field of teaching in itself, going beyond its technological significance.

The findings have contributed to the existing knowledge and pointed out the significance of context and design in creating a framework for technology-mediated second language learning. The tasks of augmented reality functioned better if they could be traced back to clear communications intentions or if they were presented in relevant contexts. When the pedagogical aim dictated the use of AR, learners demonstrated motivation, pragmatic awareness, and sustained engagement. The findings thus support the belief that the use of technology does not lead

to a transformation in learning, but rather, the integration of technology into the teacher's practice through a principled approach earns it educational value. Therefore, augmented reality should be viewed as an inseparable component of the larger pedagogical ecology that consists of teachers' mediation, task design, and interactional opportunities.

During the research, the application of augmented reality in the English as a foreign language (EFL) context was evaluated through the method of discourse analysis. Discourse analysis was a benefit not only for applied linguistics and educational technologies but also for new inquiries, especially in technology-mediated language learning. It emphasizes that the evaluation of technology should be based not only on the results but also on the processes of interaction, meaning-making, and the learner's experience, among others. Teaching and learning activities, including the use of immersive technologies, are conducted through conversations in the classroom, so the study contributes to the aspects mentioned above indirectly. Exchanging ideas among teachers, students, and researchers might have a role in affecting the development of the EFL classroom in terms of producing language through drama, interaction, and establishing significant links with the outside world.

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