Research Paper

Using Virtual Scenarios to Enhance University Students' Understanding of Pragmatic Texts

Asst.Prof. Atyaf Hasan Ibrahim(PH.D)
Al-IraqiaUniversity, College of Arts, Department of English

Asst. Lect. Taha Talib Ali
Al-Iraqia University, College of Arts, Department of English

Prof. Fatima Rahim Abdulhussein (PH.D)
University of Misan, College of Basic Education, Department of English

Abstract
Virtual scenarios have become a successful method of instruction in English as a foreign language (EFL) situations to improve the understanding and the practical knowledge of the university students about the pragmatic texts to be taught and represent them with the possibility to address the authentic communicative situations and to build the pragmatics skills of the language in the academic, social, and intercultural communication. The research was done among 60 third-year undergraduate students of the Department of English, College of Education, University of Maysan, Iraq and was conducted during the 2024-2025 academic year. The respondents were separated into the experimental group (n = 30) that was instructed in the form of interactive virtual scenarios and a control group (n = 30), which was taught using the traditional text-based format. The virtual situations were meant to bring out realistic communicative condition such as academic, service, and intercultural interactions and emphasized on speech acts, implicature, politeness strategies, and contextual meaning. The data were obtained under the pragmatic comprehension test, a discourse completion task (DCT) and post-instruction questionnaire to assess the perceptions of students with regards to engagement in learning. Paired and independent samples t-tests of the quantitative analysis showed statistically significant positive change in the pragmatic comprehension and contextual interpretation abilities of the experimental group relative to the control. Qualitative data also revealed that virtual situations encouraged the active participation, situational awareness and the comprehension of implied meanings to a greater extent. The paper finds that virtual scenarios are a viable strategy in EFL teaching to build pragmatic competence at university level and suggests their development into the curriculum design and teacher education courses.

Keywords: Virtual scenarios, Pragmatic competence, EFL, English as a foreign language, University students, Speech acts, Implicature, Politeness strategies

I.   Introduction

Pragmatic competence is an important part of communicative competence which helps language users to read above the literal forms of language and how language can be used in context. In English as a foreign language (EFL) classrooms, university students are commonly recognized to be of sufficient grammatical competence and vocabulary base; nevertheless, they are often at a loss in understanding pragmatic writings which include implicated meanings, politeness tactics, speech performing, and contextualized lectures. These challenges are mostly pronounced in the academic discourses, service experiences, and intercultural interactions, where meaning is constructed based on social practices, power-relations, and situations and not by any direct linguistic indicators. Past studies in the teaching of interlanguage pragmatics have highlighted the importance of teaching methods that transcend text-decontextualization and single example teaching (Kasper and Rose, 2002). Most EFL environments such as in Iraqi universities depend on written materials and lectures by the teacher

whereby, the teacher may be limiting the exposure of students to the use of authentic use in practical contexts. Consequently, students have difficulties in applying theoretical pragmatics into practical communicative practices. It is this disjuncture between form instruction and pragmatic use that demands pedagogical reconnaissance that places the use of language at meaningful and interactive sites.

The new trends in technology in education have provided an opportunity to use the virtual learning environment in teaching pragmatics. More specifically, virtual scenarios enable the learner to practice simulatedreal world scenarios that replicate the real communicative practices. Integrating pragmatic texts into interactivity situations helps such situations to allow students to see, analyze, and react to language use in socially and culturally correct forms. Learning is best experienced as a construction of meaning by the learners through contextualized interaction as opposed to information passive reception, socioculturally and constructivist point of view. Although the empirical research on the application of virtual scenarios to build pragmatic text comprehension in the university level is still limited, there is no empirical investigation on this issue, particularly in the Middle Eastern and Iraqi EFL setting. There are only a few studies on pragmatic reading and interpretation as most of the available studies concentrate on speaking performance or overall communicative competence. In response to this gap, the current paper explores the magnitude to which virtual scenarios can help university students learn more about pragmatic texts in English. The research to be conducted will help the world of EFL pragmatics and digital learning by comparison of the traditional teaching and learning with the scenario-based virtual learning in pedagogical and theoretical aspects.

II.   Research Questions and Hypotheses

The research questions to be used to meet the goals of the study are as follows:
1: How do virtual scenarios affect the knowledge of pragmatic texts in university EFL students as opposed to text-based training?
2: In what ways are the use of virtual scenarios having the most positive impact on the use of pragmatic features like implicature, speech acts, and politeness strategies?
3: What is the perception of EFL students in universities about the application of virtual scenarios in studying and understanding pragmatic texts?
On the basis of these research questions, the hypotheses that the study includes are the following:
H1: University EFL students taught pragmatic text comprehension by means of virtual situation will be characterized by significantly higher scores of the given comprehension than their counterparts taught by means of traditional approaches.
H 2: Instruction in virtual scenarios will result in more positive development of student knowledge about implicature and contextual meaning than positive development of student knowledge about explicit pragmatic features.
H3: The students will have positive perceptions towards the application of virtual scenarios that will reflect more engagement and contextual awareness in pragmatic learning.

III.   Literature Review and Theoretical Framework
3.1 Pragmatics and Meaning in Language Use

Pragmatics is widely interested in the meaning-making, negotiation, and meaning-making processes, as well as the contexts of their construction, negotiation, and interpretation. In contrast to semantics that has generally studied the concept of meaning as an abstract quality of terms, phrases, and sentences, pragmatics anticipates the dynamic connection of language, users, and situations. It is concerned with intention of the speaker, interpretation by the hearer, and how meaning can be influenced by context in terms of time, place, participants and communicative purpose (Leech, 1983; Thomas, 1983). In pragmatic communication meaning is not often limited to literal linguistic patterns, but often it is indirect, implicit and implied meaning, and interlocutors may have to travel beyond the surface structures to get to understand intended communication. Implicature, presupposition, speech acts and deixis are some of the phenomena that show how a significant portion of what is being communicated is heavily reliant on shared knowledge and assumptions that are contextual as opposed to literal. Researchers have stressed out that pragmatic meaning is the product of the interplay between language options as well as a broad assortment of contextual factors, such as social distance, power relations, norms of politeness, cultural expectations, and communicative purposes (Brown and Levinson, 1987; Levinson, 2000). The forms of expression used by speakers to attain specific effects are selected strategically, whereas the hearers, relying on the sociocultural knowledge and context, interpret these choices. Therefore, the interpretation of pragmatic writings is not an entirely linguistic undertaking but rather a cognitive, socially and culturally oriented one. Pragmatic comprehension is a more complicated, higher-order process, and the reader and the listener must infer meaning instead of merely decoding it. This confusion is more so in academic, literary, and digital texts, in which meaning is quite frequently stratified, strategically ambiguous, or culturally embedded, imposing considerable interpretive pressures on language users.

3.2 Pragmatic Competence

Pragmatic competence is a well-known central element of general communicative competence in the second language acquisition (SLA) research, along with grammatical, sociolinguistic, and strategic competences (Canale and Swain, 1980; Bachman, 1990). Pragmatic competence helps language learners not only to make linguistically correct utterances but also to make language use linguistically sensitive, socially acceptable and interactionally effective. It entails the capacity to choose appropriate types of linguistic forms in order to accomplish communicative intentions and to understand utterances of others in terms of underlying meanings, social conventions and situational restrictions. Pragmatic competence in this way intermediates linguistic knowledge and real-life language practice so that learners can be involved actively in various communicative contexts. Although it is important, there exists a significant amount of research that suggests that pragmatic competence is not acquired simultaneously with grammatical proficiency or automatically. Students can exhibit great syntactic precision and lexical proficiency and remain incapable of comprehending or speaking pragmatically correct language, especially in settings of the foreign language (EFL) where they do not have enough exposure to natural conversation (Kasper and Rose, 2002). Such classroom teaching situations tend to be more form-oriented and the learner is not well provided with the chance of witnessing the functioning of pragmatic norms in real-life communication. This leads to a possibility of learners over-relying on the language of the textbooks or carry the pragmatic norms of their native languages to their new ones, which might not necessarily be the same. This is a common cause of pragmatic failure, which is a process that takes place when learners misunderstand or misuse language in context, resulting in misunderstanding or unintended social outcomes. Even in relatively high-level language competence, learners often have problems with indirectness, connotative meanings, irony, humor, politeness strategies, and expressions with a cultural context (House, 1996; Bardovi-Harlig, 2013). As an illustration, learners can take indirect requests or refuses too seriously or they do not identify face-saving mechanisms or the degree of formality they need in a particular interaction. These misconceptions can be a barrier to effective communication, and they can be detrimental to interpersonal relations or educational achievement. These issues underscore the need of overt pedagogical focus on pragmatic competence in this context specifically pragmatic comprehension in second language education. At university, students are growing to be asked to interact with increasingly sophisticated academic language, professional interaction, as well as a socially sensitive interaction, which requires a sophisticated interpretation of implicit meaning and contextual clues. In the absence of proper pragmatic consciousness, learners might be unable to decipher lectures, academic discourse, emails or digital writings in the most favorable light despite the apparent linguistic simplicity. Thus, it is important to incorporate the element of pragmatic teaching into the higher education programs to help students to be more effective in their communication and to become effective in the academic and real-life performance.

3.3 Pragmatic Texts and Interpretive Challenges

Pragmatic texts can be defined as broad category of spoken and written discourse where meaning is not completely pre-coded in explicit forms of language but is as well constituted by contextual, social and cultural forces. These texts can be found in daily speech, institutional and professional life, in academic communication, and more and more in the digital and multimodal world, in emails, online discussions, posts on social media, and in virtual interactions. In such situations, the speakers and writers mostly use the knowledge, assumptions and the situational elements to communicate the meanings indirectly, and pragmatic interpretation is necessary to achieve successful communication. According to the argument by Yates (2010), to decode pragmatic texts one needs to be sensitive to the manner, reason, and in what contexts something is being said, rather than merely what is being said. Pragmatic texts can be interpreted by being able to identify implied meanings, by dealing with ambiguity, and by knowing discourse conventions including turn-taking, politeness strategies, hedging and stance-taking. Readers and listeners have to rely on sociocultural expectations to find out about the intention of the speaker, assessed levels of formality, and interpret relational meanings which are inherent in the use of the language. It is an intellectually challenging process, which involves the combination of language with contextual awareness and cultural perception. In the educational and institutional context, such as pragmatic meaning can be expressed by fearful wordings, circumspect criticism or thinned down statements, which are difficult to decipher by language learners to understand correctly. Empirical evidence has indicated that the learner of a second language is often guided by literal interpretation strategies when processing texts, and that they tend to pay more attention to surface-level meanings without considering any implicit pragmatic hints (Taguchi, 2011). This inclination may greatly impair their comprehension of the real meaning of the speakers or writers, especially when it is indirect requests, connotation or lack of agreement, sarcasm or even evaluative language. Students can learn the personal words and grammars of a text and not the pragmatic force which is what makes the text dominant, thus interpret them in parts or in distortions. Pragmatic text comprehension can also be complicated by the intercultural communication where the concept of politeness, indirectness, appropriateness, as well as rhetorical organization can be different in relation to a specific cultural setting. What one culture may regard as polite, cooperative, or persuasive might be interpreted in another culture leading to

the risk of misunderstanding. This, however, is made even more complicated in digital settings where paralinguistic codes, tone of voice or facial expression, which can help to interpret pragmatically, are absent. Combined with these results, it may be inferred that pragmatic text comprehension is an important and specific instruction objective, not a by-product of overall language competence. The acquisition of the skill to read pragmatic texts in learners should be a planned pedagogical intervention that sensitises the learner to understand the meaning of context, cultural difference, and discourses. By directly tackling pragmatic comprehension, language teaching can be improved to provide learners with a more effective means of negotiating complicated communicative contexts as well as of interacting with more genuine texts in academic, social, and professional life.

3.4 Instructional Approaches to Teaching Pragmatics

Studies on instructed pragmatics have always shown that pedagogical intervention can be a significant element in the development of pragmatic awareness in learners and their capacity to understand and interpret context-dependent meaning (Kasper, 2001; Rose, 2005). Other empirical studies give overwhelming evidence to the contrary as compared to earlier predictions that pragmatic competence would occur naturally with exposure and the other way around through systematic and well thought out instruction, the pragmatic competence is likely to develop faster and the pragmatic failure is avoided. Teaching activities assist learners to be aware of pragmatic attributes in the input, comprehend the correlation amid linguistic expressions and communicative roles and turn sensitive to contextual variables that define meaning. The field of instructed pragmatics has discussed a broad scope of instructional methods. Metapragmatic explanations, direct discussion of pragmatic norms, and rule-based descriptions of language use as examples of explicit instruction have been found to prove especially effective in enhancing the awareness of learners concerning pragmatic conventions and sociocultural expectations. These strategies enable learners to think consciously about the way meaning is expressed in other than literal ways and to contrast target-language norms to those of the first language (Bardovi-Harlig and Mahan-Taylor, 2003). Conversely, implicit methods of instruction emphasize exposure to rich input, consciousness-raising exercises and guided discovery, allowing the learner to deduce pragmatic patterns with the help of observation and analysis of real discourse. It has been discovered that both methods play a good role towards pragmatic development though their effectiveness may vary depending on the level of the learner, learning environment and instructional objectives.Along with these developments, there are also findings that indicate shortcomings in the conventional instructional practices. Pragmatics teaching usually is provided by using written texts, scripted conversations, or teacher lectures, where the pragmatic conventions are presented in a decontextualized and simplified form. These practices might not be able to reflect the dynamism, interaction, and situational character of pragmatic meaning that is generated in real-time communication and is formed by participants, setting, and communicative purpose (Nguyen et al., 2012). Consequently, learners can acquire declarative knowledge of pragmatic rules- awareness of what it is thought to be acceptable in theory- without being capable of putting the knowledge into practical use in the real context of communicative interactions. It is this lack of knowledge to application that has caused a number of researchers to recommend more interaction-driven, contextual, and learner-centered types of instructional designs. Methods that include role-plays, simulation, task-based and real life interaction analysis enable learners to perceive pragmatics as a living dimension of communication instead of a ruleful process. Such instructional designs can facilitate more effectively the application of pragmatic knowledge acquired in the classroom in the real-world context of communication, by stimulating the learners to formulate meaning through the active participation in the process and being exposed to different contextual situations. Therefore, recent studies are increasingly demanding pedagogical models that incorporate form, meaning and context so as to enable more profound and sustainable pragmatic competence.

3.5 Technology-Enhanced Language Learning

The introduction of technology into language teaching has radically transformed the way learning is conducted, through the adoption of the more interactive, multimodal and learner-centered education models (Chapelle, 2001; Warschauer, 2004). Increasingly, language teaching is using digital tools, and not just textbook and the face-to-face instruction in teaching but enabling the learners to interact with language in the way it is used in real and diverse situations. It is possible to simulate real-life communicative scenarios, introduce learners to different types of languages, and access the types of interactions that can be challenging or inaccessible in the limitations of the traditional classroom with the use of these tools. Due to this, technology has greatly broadened the pedagogical repertoire that is accessible to language instructors and curriculum developers. The digital technologies contribute to an extensive spectrum of instructional activities such as online discussions, virtual exchanges, multimedia input, interactive tasks, and simulated communicative scenarios. Videos, podcasts, interactions on social media, and virtual simulation allow the learners to observe the functioning of language in various settings, in different registers, and in different cultural contexts. This exposure especially is useful in building pragmatic competence as it enables the learner to be exposed to

pragmatic events occurring naturally like turn taking, politeness strategies, indirectness, and stance taking in the context. In contrast to the particular printed sources, the digital resources tend to demonstrate language as dynamic and socially-based, and to invite the learner to focus not only on linguistic forms, but also on the situational aspects that define the meaning. In this area, studies have revealed that online learning institutions have the potential to facilitate learner independence, inspiration, and cognitive involvement (Dede, 2014). In technology-mediated instruction, learners tend to be more active and as such, have to make decisions, collaborate with others and think about the learning process. These characteristics are more or less in line with constructivist opinions of learning that focus on knowledge construction through interaction and experience. Whenever learners have the choice of the learning pace, mode and sequence, they will tend to critically approach the learning activities and develop metacognitive awareness of the ways the meaning is communicated and perceived. Notably, technology allows introducing the language in context-sensitive and multimedia forms that allow learners to see the pragmatic features and interpret the meaning better. A combination of visual elements, audio stimulation, textual and interactive can be used to emphasize minor details about communication which would otherwise be overlooked. As an illustration, tone of voice, facial expression, and contextual framing could be incorporated in digital assignments giving the learners several information sources upon which pragmatic interpretation could be applied. By doing so, technological advancement, by providing access to genuine input and facilitating more detailed processing of pragmatic sense, acts as a potent instrument of contributing pragmatic growth during the learning process of a second language.

3.6 Virtual Scenarios

Virtual scenarios are a unique and growing category of online learning resources that are aimed at generating simulated communicative situations that are typically difficult to recreate using conventional classroom resources. The simulations involved in these situations usually include interactive dialogues, role plays, branching stories, and multimedia-enhanced simulations where learners are expected to read between the lines, negotiate meaning as well as respond to the meaning of the context being created (Herrington and Oliver, 2000).

Having placed pragmatic texts into real or realistically created communicative contexts, the virtual conditions are very similar to the context-dependent nature of pragmatic meaning-making where interpretation is contingent upon social, cultural and situational signals and not solely on linguistic forms. Virtual scenarios have diverse pedagogical benefits. First, they enable experiential learning and learners get the opportunity to learn by applying a language in similar conditions that are as close to real-life communication as possible. The learners are not passive receivers of the input; they make decisions, respond to interlocutors, and get to feel the results of various communicative decisions. Such participatory activity facilitates more intensive mental activity, as the learners have to process information in a particular context, judge possible answers, and reflect on pragmatic codes of conduct to attain a successful interaction (Gee, 2007; Peterson, 2010).

Virtual scenarios provide the behavioral learner with an opportunity to test pragmatic strategies indirect requests, politeness indicators and discourse management, without worry of being socially embarrassed or a failure in real life. Second, virtual scenarios facilitate the cultivation of pragmatic awareness through providing localized feedback in real time. Interactive systems may model adequate or inadequate responses, bring out the discrepancy between intended and perceived meaning, and encourage consideration of the social and cultural aspects of communication. This kind of directed experiential learning assists learners to identify patterns in the use of language, deduce implicit meaning and internalize contextualized norms that may not be easily communicated using conventional instruction. Furthermore, the virtual scenario being multimodal (comprising of text, audio, video and interactive cues) allows the learner to be multichannel, meaning that he/she can process several channels of information at once making him/her sensitive to both language and extralinguistic expressions that play a crucial role in the pragmatic understanding process. Third, virtual scenarios promote learning independence among learners and the ability to make strategic decisions. Since the situations may be created with several options or branches of consequences, learners are prompted to think about the practical consequences of their decisions, expecting the reaction of the interlocutors and modify their reactions dynamically.

This resembles real-life communicative competence where effective communication depends on the combination of linguistic knowledge, cultural insight and situational enlightenment. To language teachers, virtual scenarios offer scalable and flexible tools that can adapt to various needs, proficiency, and learning goals of learners and as a result, are applicable both in classrooms and distance learning environments. Lastly, it has been found that scenario-based learning has the potential to increase learners motivation and engagement, especially learners who respond better to immersive, interactive, and gamification. Virtual scenarios help students invest more in the learning process and apply them again and againby instantiating abstract pragmatic rules into meaningful semantically rich tasks. Within the teaching of pragmatics, such resources do not only enable the learning of the implicit meanings and the indirect wording but also imparts higher-order interpretation skills that are required to traverse the complex academic, professional, and intercultural

interactions. In general, virtual scenarios are an effective pedagogical approach to the reduction of the gap between the theoretical knowledge of pragmatic norms and their actual implementation in real communicative situations.

3.7 Digital Environments and Pragmatic Development

The research work discussing the impact of digital environment on pragmatic development presents strong evidence that the technology-mediated instruction can substantially help learners develop a greater capacity to observe and decode pragmatic forms and functions (Sykes, 2005; Taguchi and Sykes, 2013). These settings usually incorporate interactive media, multimedia input and online communicative activities to provide learners with a chance to work with language within a contextually rich environment that is hard to achieve in a conventional classroom environment. Technology enables learners to view the performance of social actions, indirect meanings, negotiation of politeness, and management of interpersonal relationships by exposing them to real or simulated interactions in which speakers should use language to perform social actions. This can be especially useful when the learner has limited access to face-to-face communication in the target language; as this can balance out the lack of experience with the outside world, but they can still maintain the interaction with the language that is embedded in the context.

One of the significant strengths of digital environments is the multimodality of the environment. In contrast to traditional printed or spoken resources, these settings frequently offer language in combination with pictorial signals and situational hints and contextual details that allow the learners to deduce the intentions of the speakers and the social connotation. As an example, video-based conversations, virtual role-plays and interactive simulations enable learners to deal with linguistic input together with body language, facial expressions, gestures, tone of voice, and other forms of paralinguistic cues. This multimodal input is helpful in developing the skill of pragmatic inferencing, where the learners are able to develop beyond literal meaning and can identify the micro-level effects of a context on meaning. Also, scaffolding and or immediate feedback often offered in interactive digital environments, direct the attention of learners on pertinent pragmatic features and strengthens correct interpretation. Although these encouraging results have been taken, much research carried out has focused on oral interaction, or role-play, or game-based learning environments, in which learners rehearse real-time conversational proficiency. Although such studies provide very useful information about the learning of spoken pragmatics, they tend to disregard the equally significant area of pragmatic text comprehension.

The academic, institutional, and professional environment requires more and more the skills of viewing written or digitally mediated discourse, the meaning of which is concealed in the multifaceted textual structures and is conditional on the circumstances, culture, and situation. In such situations,PRagmatic comprehension takes place by getting to know what is implied and indirect requests, evaluative language, hedging and other indirect kinds of meaning that cannot be seen at a glance of the surface text. Consequently, students can be good in oral communication and yet fail to comprehend pragmatic texts. This research gap highlights the importance of conducting more comprehensive and systematic studies on the facilitation of interpretive skills in oral and written forms through virtual environment. A combination of text-based simulation, scenario-based tasks, and multimodal input can offer information about the way learners process pragmatic meaning when using different channels of communication. Furthermore, academic and institutional situation should be given special consideration because these environments require advanced interpretive abilities in performing tasks that include reading lectures, participating in academic discourse, writing emails or interpreting policy reports. By making research on spoken interaction expand to pragmatic text comprehension, researchers and instructors have the opportunity to create more detailed pedagogical models that will exploit digital tools to increase the pragmatic competence of learners in a greater variety of real-world communicative situations. This research would also be used to design instructional materials in the emphasis of how virtual environments, multimodal texts and interactive environments can be strategically used to develop higher-order interpretive and inferential processes in language students.

3.8 Theoretical Perspectives Underpinning the Study

Several supplementary theoretical stand-points have been used in the current research. The Sociocultural Theory provides emphasis on the fact that learning mediates through social interaction and cultural tools, and that virtual scenarios serve as a mediational tool that facilitates pragmatic interpretation (Vygotsky, 1978). The constructivist theory of learning regards learners as active participants of knowledge building process and emphasizes on experiential and context-based learning (Piaget, 1972; Jonassen, 1999).

The further argument in Situated Learning Theory is that knowledge cannot be independent of the context in which it is learnt and utilized (Lave and Wenger, 1991). As highly situational skills, pragmatic competence is especially appropriate in situated instruction. The virtual scenario settings offer the conditions in which pragmatic texts are incorporated in real-life contexts so that learners can acquire transferable interpretation.

IV.   Methodology

4.1 Research Design

The current research follows a quasi experimental mixed design in order to investigate the effect of virtual scenario based instruction on the knowledge of pragmatic texts in English among university students. To give a detailed report of both quantifiable results of learning and the subjective learning experience of students, a mixed-methods approach was chosen. The improvement in pragmatic text comprehension was measured with the help of quantitative data, and the information on the perceptions, engagement, and interpretive strategies of learners was provided through qualitative data. The authors used the pre-test- post-test control group design in their study that permitted undertaking the systematic comparison of students who were exposed to virtual situations and those, who were taught through conventional instruction. The design is common in educational research to establish the effectiveness of instructions although it controls the differences between groups that already exist.

4.2 Research Context

This research paper was carried out at the Department of English, College of Education, University of Maysan, Iraq, in the second semester of the 20242025 academic year. The teaching of English in the context is based on the foreign language and the general teaching method is focused on grammatical correctness, reading ability and literature. Pragmatics are not explicitly taught and students do not get much access to real world communicative situations besides what they encounter in the classroom. This background gives an appropriate environment to explore the pedagogical usefulness of virtual scenarios in the development of pragmatic text comprehension.

4.3 Participants

The respondents were 60 undergraduate EFL students, in their 3 rd year of study, taking a mandatory course in linguistics-related studies. The students were aged 20-23 years old and had the same educational and linguistic background. Before the intervention, the participants had already taken the basic knowledge of grammar, reading, and introduction to linguistics but never been taught pragmatics in a formal manner.
The subjects were separated into two intact groups:
Experimental group (n = 30): was taught on the basis of virtual scenarios.
Control (n = 30): was instructed using the conventional text-based methods.
In order to have group comparability the pragmatic comprehension pre-test was given at the start of the study. The statistical analysis proved that there were no differences between the two groups before the intervention.

4.3 Instructional Materials and Virtual Scenario Design

The teaching resources were based on pragmatic texts that depict typical communicative scenarios, which include academic conversations, institutional communication, service communication and intercultural communication. These passages were chosen and made to represent real-life application of language with implicature, indirect speech acts, politeness tactic, and contextual interpretation. In the case of the experimental group, the texts were placed in virtual situations created with the help of digital presentation tools and interactive platforms which can be accessed with the help of mobile devices. In both scenarios, there was a situational background, role positions of participants and an informative goal, which was succeeded by pragmatic texts which had to be interpreted. The students were asked to engage with the situations through the analysis of the contextual clues, anticipation of the speaker intentions and the choice or explanation of the right one. The control, on the other hand, was presented with the same pragmatic texts using conventional means of teaching, i.e. printed text, teacher explanation and classroom discussion without mentioning virtual or simulated environment.

4.4 Instructional Procedure

The intervention program took a span of eight weeks and each group had two sessions per week. The instructor delivered the same lesson to both groups to reduce the variation caused by the instructor. The experimental group was involved in activities related to scenarios that were focused on contextual reading, inference and reflection. The process of instruction was divided into three steps: (1) virtual situation contextualization, (2) pragmatic meaning guided analysis, and (3) discussion and feedback. The control group was exposed to a traditional pattern of explanation, analysis of examples, and understanding questions.

4.5 Research Instruments

The study used three key tools to gather both quantitative and qualitative data:
1. Pragmatic Text Comprehension Test: A test created by researchers and comprising of multiple choice and short answer questions aimed at measuring how students comprehend implied meaning, speech acts and the use of politeness strategies. The test was carried out as a pre test and as post test.

2. Discourse Completion Task (DCT): DCT involved the students reading pragmatic situations verbally and responding to them, enabling the more in-depth study of pragmatic knowledge than the recognition-level tasks do.
3. Student Perception Questionnaire: The post instruction questionnaire was conducted through a five-point Likert scale in the experimental group to understand the attitudes of the students towards the learning in virtual scenario.

To promote content validity, all instruments were audited by the applied linguistics specialists. This was reliably tested by pilot testing and statistical analysis.

4.6 Data Collection Procedures

The data was collected on three occasions: the pre-instruction, during-instruction and post-instruction. To achieve equivalence of the bases, pre-tests were conducted to the two groups before the intervention. Immediately after the instructional period, post-tests and DCTs were to be administered. At the conclusion of the study, the perception questionnaire was distributed electronically to the experimental group of the study.

4.7 Data Analysis

The SPSS software was also used to analyze quantitative data of the pragmatic comprehension tests. Paired-samples t-tests were applied in order to compare within-group differences in pre-test and post-test scores and independent-samples t-tests were applied to compare the post-test scores of the experimental and control groups. The magnitude of instructional impact was determined by means of calculating effect sizes. Thematic analysis was used to analyze qualitative data collected on the DCT responses and the open-ended questionnaire responses, which concentrated on the patterns of pragmatic interpretation, awareness of context and engagement of learners. This was a mixed-methods design that gave a holistic explanatory view of the outcome of learning as well as learner perceptions.

V. Results

5.1 Pre-Test Scores: Baseline Comparisons

The analysis of the pre-test scores was done to ascertain equivalence between the experimental and the control group prior to the intervention. Table 1 demonstrates the descriptive statistics of both groups.

Table 1. Pre-Test Pragmatic Comprehension Scores

GROUP	N	MEAN	SD	MIN	MAX
EXPERIMENTAL	30	52.3	6.5	42	65
CONTROL	30	51.7	7.1	40	64

The test of independent samples ensured that there were no significant differences across groups at the pre-test stage, $t(58) = 0.36$, $p = .72$. This means that the two groups were similar with respect to the initial pragmatic understanding.

5.2 Post-Test Scores: Pragmatic Comprehension

Table 2 shows the scores of the two groups after the test. Virtual scenario based instructions resulted in a significant improvement in experimental group.

Table 2. Post-Test Pragmatic Comprehension Scores

GROUP	N	MEAN	SD	MIN	MAX
EXPERIMENTAL	30	78.4	5.2	68	88
CONTROL	30	61.5	6.7	50	73

The independent-samples t-test showed statistically significant post-test scores difference between the groups $t(58) = 9.42$, $p < .001$ and large effect size (Cohen's $d = 2.42$), which demonstrated the efficiency of teaching in virtual scenarios.

5.3 Within-Group Improvement

Paired-samples t-tests were conducted to examine the improvement within each group.

Table 3. Pre-Test and Post-Test Comparison Within Groups

GROUP	PRE-TEST MEAN	POST-TEST MEAN	T	P	COHEN'S D
EXPERIMENTAL	52.3	78.4	16.87	<.001	3.08
CONTROL	51.7	61.5	6.72	<.001	1.23

The outcome shows that the improvement was observed in both groups, but the experimental one had a significantly greater one in pragmatic comprehension.

5.4 Discourse Completion Task (DCT) Results
The DCT was tested to evaluate the capability of the students in interpreting pragmatic meaning in context.

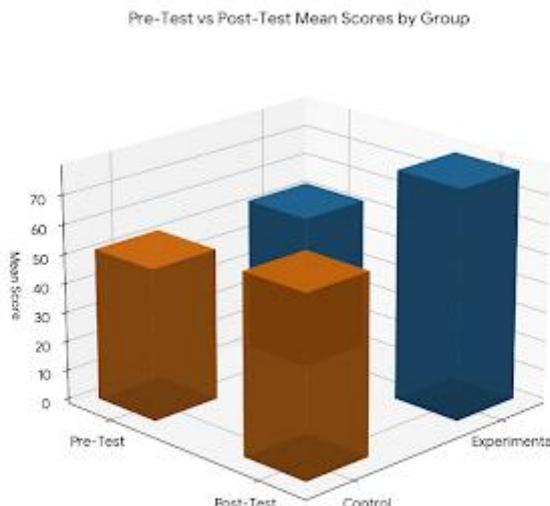Pre-Test vs Post-Test Mean Scores by Group

Table 4 gives mean scores of three broad categories of pragmatic: implicature, speech acts, and politeness strategies.

Table 4. DCT Post-Test Scores by Pragmatic Category

GROUP	IMPLICATURE MEAN (SD)	SPEECH ACTS MEAN (SD)	POLITENESS STRATEGIES MEAN (SD)
EXPERIMENTAL	26.5 (3.2)	27.8 (2.7)	24.1 (3.0)
CONTROL	19.4 (4.0)	20.1 (3.8)	18.0 (3.6)

The independent-samples t-tests have ensured that there was a significant difference in all categories ($p < .001$) which means that the experimental group performed better than the control group when it came to interpreting all pragmatic features with the greatest gains in speech acts.

5.5 Student Perceptions: Questionnaire Results
The questionnaire after the instruction was used to assess the perceptions of the students in terms of engagement, contextual understanding, and benefits of learning. The results of the Likert-scale (quantitative, 1 = Strongly Disagree, 5 = Strongly Agree) are summarized in Table 5.

Table 5. Student Perceptions of Virtual Scenario-Based Learning

Item	Mean	SD
Virtual scenarios increased my engagement	4.63	0.49
Scenarios helped me understand context better	4.57	0.51
I could interpret implied meanings effectively	4.50	0.53
The experience was enjoyable and motivating	4.70	0.46
I would like more lessons using virtual scenarios	4.60	0.50

In general, the attitudes of students were rated as extremely positive, with focus on the engagement, awareness of context, and learning advantages.

5.6 Qualitative Analysis: Open-Ended Responses
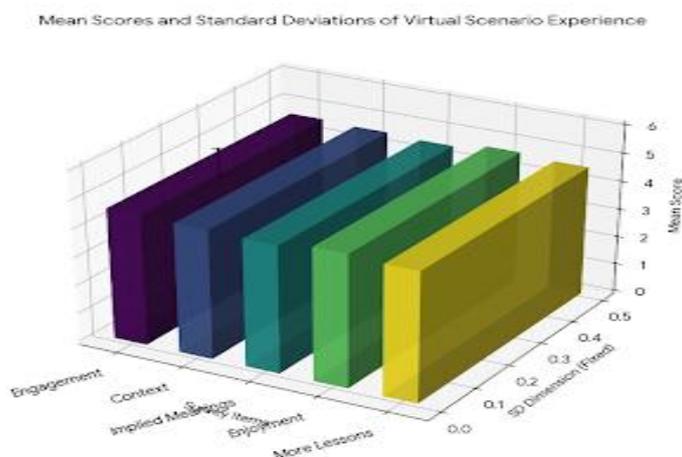Thematic analysis of open-ended questionnaire items revealed three major themes:

Mean Scores and Standard Deviations of Virtual Scenario Experience

Table 6. Themes from Qualitative Analysis

Theme	Sample Student Response
Engagement & Motivation	"I felt more involved because I had to make decisions based on the scenario."
Contextual Understanding	"The virtual environment helped me see how meaning changes in different situations."
Confidence in Interpretation	"I feel more confident now in understanding implied meanings in texts."

These themes are complementary to the quantitative findings since it is shown that virtual scenarios not only facilitate the understanding, but also, improve the motivation and confidence of the learners.

5.7. Discussion
5.7.1 Effectiveness of Virtual Scenarios in Enhancing Pragmatic Comprehension
The quantitative findings of the study (Tables 2 and 3) show that students employing the experimental group achieved much higher scores on the post test than the children in the control group, which proves the first hypothesis (H1). The effect size (Cohen d = 2.42) was large which would indicate that virtual scenario-based instruction had a significant influence on the capacity of students to comprehend pragmatic meaning. The findings are consistent with the previous studies suggesting that pragmatic awareness and understanding is promoted with the help of contextualized, interactive education (Taguchi, 2015; Sykes, 2005). In comparison with the traditional text-based teaching methods, virtual scenarios enabled the students to actively participate in simulated communicative situations, thus enhancing their capacities to infer the intentions of the speakers, to identify implicatures, and to assess the politeness strategies.Thisconclusion is supported by the gains that were made in the discourse completion task (Table 4). Experimental group students had higher performance on all pragmatic categories as compared to the control group with the most improvements in the speech acts. This indicates that virtual scenarios were especially useful in the provision of dynamic social interactions which are intrinsically hard to express in the form of inert writings. They are consistent with the claims of Kasper and Rose (2002) that pragmatic competence is best developed when the learner gets to work with language in contextually rich settings, and they validate the significance of providing instruction that is based on simulated communicative contexts.

5.7.2 Development of Contextual Awareness and Interpretive Skills
Table 5 and Table 6 depict that students found virtual scenario-based learning to be very entertaining and effective in building contextual knowledge and interpretations. The open-ended research responses were thematically analyzed to uncover that students appreciated the ability to make meaning in a safe, immersive setting and this is in line with tenets of the Situated Learning Theory (Lave and Wenger, 1991). Placing pragmatic texts into realistic situations the learners would be able to see how the language works in various social, cultural, and institutional situations which would result in a better interpretation of the implied meaning and politeness strategies.

The results are in line with the assumptions of Sociocultural Theory (Vygotsky, 1978) which underscores the use of mediational tools in learning. Virtual scenarios provided a context and feedback, mediating the understanding of learners about pragmatic texts and offering a chance to reflect. As per constructivist theory (Piaget, 1972; Jonassen, 1999), learners were capable of constructing knowledge actively through their choices, interpretation of interactions and reflection upon them, not through receipt of information.

5.7.3 Engagement, Motivation, and Confidence
The good scores in the student perception questionnaire (Table 5) reveal that virtual scenarios increased understanding, as well as accomplishing engagement and motivation. Most of the participants claimed that the interactive appeal of the scenarios stimulated their thinking and interpretive decision-making, which made them more attentive and interested. The qualitative data (Table 6) also indicated that students felt more confident with the ability to interpret pragmatic meaning. These results reflect the studies in the field of digital language learning which indicate that immersivity and interactivity create intrinsic motivation and self-efficacy (Gee, 2007; Peterson, 2010).

This engagement, contextualization and active decision-making could be one explanation as to why the experimental group attained greater gains as compared to the other control group though both groups went through the same content. The results indicate that motivation and cognitive involvement are essential mediators in the formation of pragmatic comprehension, which has been previously identified to show correlation between the involvement of the learner and pragmatic acquisition (Bardovi-Harlig, 2013; Alcon-Soler, 2005).

5.7.4 Pedagogical Implications
The results have a number of implications to EFL teaching and the construction of the curriculum:
1. Integration of Virtual Scenarios: The instructors are to use virtual scenarios in EFL classes to give students real life contextual experience that facilitates pragmatic understanding.
2. Pay attention to Interaction and Reflection: Scenarios must make learners engage in the process of meaning interpretation and reflection on their choices, which facilitate more in-depth cognitive processing.
3. Balanced Approach: Virtual scenarios are only effective in supplementing traditional instruction, rather than substituting it. Integrating scenario-based learning with overt emphasis on pragmatic rules can be maximizing on learning outcomes.
4. Teacher Training: The teachers are expected to be trained on how to design, facilitate and evaluate virtual scenario tasks and make them consistent with learning goals and technological possibilities.

5.8 Key Findings
The results give strong support to the thesis that virtual scenario-based instruction can be effectively used to improve the pragmatic text comprehension:
1. Characteristic Gains: The experimental group had significant post-test pragmatic comprehension scores that were highly significant over the control group (Tables 2 and 3). There were also improvements in all the types of the DCT and especially in the procedure of interpreting the speech acts, implicature, and the politeness strategies (Table 4).
2. Improved Contextual Awareness: The students showed more skills in decoding implied meanings and reading language use in contextes. This fact is consistent with the Situated Learning Theory which focuses on learning in real-world settings.
3. High Student Perceptions: The respondents indicated that they engaged, were motivated, and confident when using virtual scenarios at a high rate (Tables 5 and 6). The thematic analysis found that students liked the interactive and immersive quality of scenarios and how this fostered reflection and active decisions.

Altogether, the outcomes indicate that the virtual scenarios help fill the gap between theoretical knowledge and realistic interpretation of pragmatic meaning with the benefits of traditional text-based learning.

VI.   Conclusion
Finally, the research gives good empirical support that virtual scenario-based learning improves the pragmatic understanding and interpretation abilities, and involvement of university students. With the integration of real situations, interactivity, and reflection, virtual situations provide the effective pedagogical approach that is consistent with the modern theories of learning and pragmatics. The findings justify the application of digital, context-rich learning experiences in EFL learning and helps to further the research on the topic of technology-mediated pragmatic development. Finally, the paper speaks of the transformative nature of virtual situations in closing the gap between theoretical knowledge and practical knowledge to equip students with more effective and contextually suitable communication in the real world.

References

[1].   Alcón-Soler, E. (2005). Does instruction work for learning pragmatics in the EFL context? *System, 33*(3), 417–435. https://doi.org/10.1016/j.system.2005.06.005

[2].   Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford University Press.

[3].   Bardovi-Harlig, K. (2013). Developing L2 pragmatics. *Language Learning, 63*(Suppl. 1), 68–86. https://doi.org/10.1111/j.1467-9922.2012.00738.x

[4].   Bardovi-Harlig, K., & Mahan-Taylor, R. (2003). *Teaching pragmatics*. United States Department of State.

[5].   Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge University Press.

[6].   Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1*(1), 1–47. https://doi.org/10.1093/applin/1.1.1

[7].   Chapelle, C. A. (2001). *Computer applications in second language acquisition*. Cambridge University Press.

[8].   Dede, C. (2014). The role of digital technologies in deeper learning. *Educational Technology, 54*(6), 11–20.

[9].   Gee, J. P. (2007). *What video games have to teach us about learning and literacy* (2nd ed.). Palgrave Macmillan.

[10].   Herrington, J., & Oliver, R. (2000). An instructional design framework for authentic learning environments. *Educational Technology Research and Development, 48*(3), 23–48. https://doi.org/10.1007/BF02319856

[11].   House, J. (1996). Developing pragmatic fluency in English as a foreign language. *Studies in Second Language Acquisition, 18*(2), 225–252. https://doi.org/10.1017/S0272263100014896

[12].   Ishihara, N., & Cohen, A. D. (2010). *Teaching and learning pragmatics: Where language and culture meet*. Routledge.

[13].   Jonassen, D. H. (1999). Designing constructivist learning environments. In C. M. Reigeluth (Ed.), *Instructional-design theories and models* (Vol. 2, pp. 215–239). Lawrence Erlbaum.

[14].   Kasper, G. (2001). Classroom research on interlanguage pragmatics. *Applied Linguistics, 22*(4), 502–530. https://doi.org/10.1093/applin/22.4.502

[15].   Kasper, G., & Rose, K. R. (2002). *Pragmatic development in a second language*. Blackwell.

[16].   Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

[17].   Leech, G. N. (1983). *Principles of pragmatics*. Longman.

[18].   Levinson, S. C. (2000). *Presumptive meanings: The theory of generalized conversational implicature*. MIT Press.

[19].   Nguyen, T. T. M., Pham, T. H., & Pham, M. T. (2012). The relative effects of explicit and implicit form-focused instruction on the development of pragmatic competence. *Journal of Pragmatics, 44*(4), 416–434. https://doi.org/10.1016/j.pragma.2012.01.003

[20].   Peterson, M. (2010). Learner participation patterns and strategy use in a virtual world. *Computer Assisted Language Learning, 23*(1), 29–45. https://doi.org/10.1080/09588220903467322

[21].   Piaget, J. (1972). *The psychology of the child*. Basic Books.

[22].   Reinhardt, J., & Sykes, J. M. (2014). Digital game and play activity in L2 teaching and learning. *Language Learning & Technology, 18*(2), 2–8.

[23].   Rose, K. R. (2005). On the effects of instruction in second language pragmatics. *System, 33*(3), 385–399. https://doi.org/10.1016/j.system.2005.06.003

[24].   Sykes, J. M. (2005). Synchronous CMC and pragmatic development. *CALICO Journal, 22*(3), 399–422.

[25].   Taguchi, N. (2011). Pragmatic development as a dynamic, complex process. *Modern Language Journal, 95*(4), 605–627. https://doi.org/10.1111/j.1540-4781.2011.01247.x

[26].   Taguchi, N. (2015). Instructed pragmatics at a glance: Where instructional studies were, are, and should be going. *Language Teaching, 48*(1), 1–50. https://doi.org/10.1017/S026144481400026X

[27].   Taguchi, N., & Sykes, J. M. (2013). Technology in interlanguage pragmatics research and teaching. *Pragmatics and Language Learning, 12*, 1–15.

[28].   Thomas, J. (1983). Cross-cultural pragmatic failure. *Applied Linguistics, 4*(2), 91–112. https://doi.org/10.1093/applin/4.2.91

[29].   Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

[30].   Warschauer, M. (2004). Technological change and the future of CALL. *Language Learning & Technology, 8*(1), 15–25.

[31].   Yates, L. (2010). Pragmatics in language teaching. *Annual Review of Applied Linguistics, 30*, 288–308. https://doi.org/10.1017/S0267190510000075

[32].   Zhu, W., & Wang, J. (2019). Digital learning environments and pragmatic development. *System, 84*, 102–114. https://doi.org/10.1016/j.system.2019.102114