# An investigation into the Impacts of CALL/DGBL Endeavors on Upgrading EFL Learners' Communicative Competence

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**Abstract**

The current study is an experimental digital game-based (DGBL) endeavor which tackles potential educational issues beyond the frequent use of games, language learning potentials in particular. It is characterized by a quantitative research design. The study aims at exploring the practical effects of videogame play, Trace Effect, on improving the players' communicative competence as sociocultural and strategic. It is hypothesized that playing videogame cannot create any difference of performance between groups of subject matters for improving English language learning. The study has concluded the followings; playing the videogame, *Trace Effects*, has formed the solely major cause of improvement and learning. Subjects in experiment group, compared to their counterparts, have witnessed giant changes in improving their sociocultural and strategic competence. Technology enables to create a friendly fascinating atmosphere under which the students can absorb much fun during and within taking different classes although the classes might sound big. Practicing virtual reality of the second/foreign language's culture has been the core point of interest for the players to absorb. It has contributed to increasing motivation towards learning, bringing back the importance of homework as a form of external extensive activity onto the ground, and forming semi-independent learning. Obtained from SPCC- Self-Perceived Communicative Competence, approach, the players have reiterated the incredible use of videogames for learning and improvement due to their better achievement records post the intervention.

**Keyword**: Communicative Competence, DGBL.

## 1. Introduction

Prensky (2001) and Gee (2003) unmask the significance of playing video games for language learning issues. They assert that video games are a device and enjoyable tool that function in a positive, engaging, and impressive manner. Plentiful forms of techniques and methods have so far been tried out by a plethora number of researchers and studies to find out the effective ways for language learning but only very few have turned to the impressive potentials and been in line with educational demands. Regardless of profound use of technology in teaching, still; it is out of perception that language learning requires a form that creates fun and enjoyment, otherwise it will allow for breaking down and trivial outcome. The objectives of the study are as follows; the study aims at exploring the practical effects of videogame play, Trace Effect, on improving the players' communicative competence as sociocultural and strategic. So does it at gaining insights into determining better didactic achievements/outcomes between the test sessions and groups. It is hypothesized that (playing videogame cannot create any difference of performance between groups of subject matters for improving English language learning. The research questions are as follows; what are the possible changes made after the experimental treatment, playing "Trace Effect" in the players' communicative competence? And which group of subjects has achieved better? The study includes the followings headings and sub-headings as follows:

introduction, theoretical background, literature review, methodology, statistical, data analyses and their interpretation and concluded remarks.

## 2. Theoretical Background

### 2.1 Communicative Competence

The idea of communicative competence has literally dated back to a period where there was controversial over the mere unconvincing distinctions between the notion of both like competence and performance which was already been introduced by Chomsky (1965 cited in McCarthy and Carter, n.d. ), i.e., afterwards Chomsky has introduced the terms as competence and performance. Specifically, the emergence of Chomsky's terms has given rise to the emergence of widening the concept turning into communicative competence respectively. Moreover, it has been posited that communicative competence has the reciprocal functions as a methodological matter; that is, playing a crucial role as condition provider for its behavioral realization in the realm of language teaching and learning (McCarthy and Carter, n.d.; Brown, 2000)

On the other hand, Savingnon (1983, cited in Brown, 2000) adds that the term communicative competence almost hardly accounts for an absolute successful functioning system of language use by speakers of different languages due mostly to the inadequate degrees of language use engagement by the participants, that is, there should always be working on the interpersonal affidavits of the speakers as well as listeners of languages rather than intrapersonal perspectives only, i.e., objective rather than subjective feelings. Chastain (1988) on describing communicative competence, states that it is as one of the characteristics of human's language and has been considered one causing complexity within ones' languages. Moreover, Nunan (1999, p. 303) defines communicative competence as, 'the ability to apply grammatical, discourse and cultural knowledge to communicate effectively in particular contexts for particular purpose'. Hymes (1970), moreover, describes communicative competence (CC) as the knowledge or the power that somebody has and enables them to effectively use the language in communication. There are four main types of communicative competence in his taxonomy as linguistic, discourse, sociolinguistic, and strategic competence.

### 2.2 CALL and Digital Game-Based Learning (DGBL)

Computer-assisted language learning –CALL, has increasingly been an underlying influential source of blessings in the realm of language learning and testing over several decades. It has usually been considered the source of giving hope and anti-blame throwers about integrating technology into language learning process and has inspired infinite scholars as well as corporations to work on language learning improvement and development for a long time. Additionally, by the advent of microcomputers greater facilities have turned up and made everything efficient and low cost for the sake of smooth flow of language learning process (Johnson and Johnson, editors, 1999) Computer- assisted language learning has been defined by Levy (1997, p. 1) as 'the search for and study of applications of the computer in language teaching and learning' (cited in Chapelle, n.d.). By definition, one can understand that the use of CALL has broadly occupied various areas of applied linguistics and language learning issues. It has also become an effective technical tool to assess and augment pedagogic concerns within and far beyond instructional spectrum. DGBL has simply been referred to the manipulation of digital games aided by the use of computers for the purpose of teaching and/or learning. Videogames have captured massive attentions of the different scholars with controversial perspectives concerning its notions. Nicolas (2005, p. 2) defines videogame in a very short sentence and very simply as, "a game which we play thanks to an audiovisual apparatus and which can be based on a story". Prensky (2001, p. 146) defines

DGBL as “any learning game on a computer or online”, which broadly covers many different types of games used in teaching simply as learning games.

Moreover, stronger arguments have been made for the powerful command of gaming as a didactic device towards giving rise to better enginemen, augmenting motivation and creating critical thinking on the part of learners during playing. [Gee, 2003; 2004; Prensky, 2001]. Gee (2003; 2004) emphasizes the potentials of computer games in the field of language learning by asserting that computer games are capable of emerging effective learning. Likewise, computer games can enable one to shift teaching classes from a way to another, traditional to modern one, for instance. Additionally, Gee (2003) specifically and vehemently reiterates and categorizes the benefits of videogames in teaching and learning process. He has provided several reasons for which videogames should ultimately be incorporated into teaching and learning process. He asserts that videogames are resources for finding information on demand, as he said, ‘just in time’ straight from the horse’s mouth, i.e., not any foreign resources or second hand ones.

Moreover, he believes that those who play good videogames are supposed to be inventors of novel tactics and/or designs of the game, i.e., not only will they be mere players playing aimlessly but also caretakers of the missions as well as troubleshooters of the challenging aspects of the videogames.

He still maintains that good games are key factors beyond increasing players’ motivations. The more effective motivation, the greater learning outcomes and achievements will bring up. By reducing the distance, the players feel much like of “being there” which the quoted mark one is best understood as actual teaching and learning prototype of successful learning. For him, last but not least, good videogames with multiplayer chances will allow for collaborative working and enhance the players’ interpersonal and group work ambitions towards forming generalized knowledge and a desire to share expertise and information amongst all. This feature of videogame can build farther bridges to link extra diversified cultures worldwide especially if the game is one operable and accessible via internet and across the whole world.

## 3. Literature Review

***1. Sedigheh Vahdat and Amin Rasti Behbahani, 2013.***

This study is an attempt towards analyzing the effects of videogame on learners’ vocabulary learning. It has gained an experimental research design by itself due to the steps of following experimental studies. The study targets a mutual aim, firstly, it intends to find out the extent to which video games help learners acquire vocabulary over those who acquire vocabulary without using video games, secondly, it tries to find out whether females acquire vocabulary via video games better, or do males. The sample of the study comprised Forty subjects (20 males and 20 females, ages 23 to 27) majoring in English teaching at Azad University. It had adopted three main tools for the sake of data collection procedures like, TOEFL test- to test their levels, an achievement test- teacher made one, and a Likert-scaled questionnaire. The study had concluded the following two key points; video-game based learning has a strong effect on acquiring new vocabulary and it revealed that there is a highly positive correlation between gender and learning vocabulary via video games.

**2. *Mayra Gabriela Inamagua Acero, 2016.***

This research aims at, firstly, knowing how meaningful and memorable may be for learners the acquisition of vocabulary via video game, secondly, reinforcing vocabulary learning from the video game "Trace Effect". The tools of the study were a survey and a test, with a pre and post versions. The study has come up with some remarks as, incorporation of extension activities as a reinforcement tool in the EFL classroom, help students in the acquisition of new vocabulary; likewise, the improvement of pronunciation. Moreover, Video

Games provide to the teacher opportunity to approach students with different learning styles such as: Kinesthetic, visual, interpersonal among others.

***3. Ching-Hsue Cheng and Chung-Ho Su, 2011.***

This one has explored the impacts of the use of videogames in emerging better achievements. The total 63 participants participated in the experiment falling into two groups as control, where (30) subjects fell in it and experiment group where there are 33 students receiving the treatment. Including the tools, a questionnaire and individual information were adopted for data collection. Additionally, ARCS model has been implemented to further seek the relationship between playing videogames and language learning stimulation. Furthermore, there were three main process stages the study has been following as input stage, where teaching content were mapped into the game content, Process stage where Explanation with internal ARCS has been applied onto the game and practices within it, and output stage where goal achievements and evaluation were born. In brief, the study has gained the following findings after all, learning achievement is not impacted by accommodation and gender; students have achieved better performance than pre-test.

**4. *Karim Sadeghi1 & Masoumeh Dousti1 , 2012.***

This study's main focus has been centered on grammar. The study has posed a number of research questions including, whether the integration of CALL technology has any significant effect on young Iranian elementary EFL learners' grammar gain, likely; if the length of exposure to CALL technology has any significant effect on young Iranian elementary EFL learners' grammar gain, moreover; if the integration of CALL technology has any significant long-term effect on young Iranian elementary EFL learners' grammar gain, and lastly; whether the length of exposure to CALL technology has any significant long-term effect on young Iranian elementary EFL learners' grammar gain. In conclusion, the study realized about the potential of computer application in the Iranian context. In addition, the more time given to exercise, the better achievements will sound. Last but not least, the use of computer enabled them to report instant feedback from students' achievements.

To conclude, roughly speaking, all the reviewed studies have hardly ever studied the effectiveness of using DGBL in enhancing or upgrading specific language learning issues except mostly for vocabulary learning improvement as well as language sub-skill learning. However, there might be some crucial sides of great values to be brought out but not at the integral levels of ELTs' main interests. On the other hand, almost all of the researches failed to bring back the effective role of asynchronous assignment (homework). None of them has ever mentioned or even triggered the name in the process of language learning and improvement via videogames because sometimes one needs almost a clear atmosphere or a calm condition under which s/he can play, for language learning in particular, regardless of any other skills improvement. In return for the leftover gaps in terms of language learning or improvement issues out of the surveyed studies, thus; the present study has made broader attempts to approach assessing or exploring the effectiveness of DGBL in improving communicative competence as sociocultural and strategic.

## 4. Methodology

### 4.1 Sampling and Group formation

As to the current study, the population has been the English major Second Year EFL students at College of Basic Education, University of Salahaddin-Erbil, 2017-2018 academic year. Subject assignment in experimental studies requires randomization, i.e., randomly selecting subjects and assigning them into groups. However, in experimental research design, the idea of picking up sample observation randomly is not always stipulated and clearly discerned from group assignment (Drummond and Murphy-Reyes, 2017). Hence, the study

has benefited from mixed-methods for generating two possible precise groups, control-comparison and experiment-intervention.

An online up-to-date version of English Language Proficiency Test as *English Level Test C1/ Cambridge First Certificate* has been utilized with some modifications on the items, i.e., adding, deletion or modifying (*Englishjet*, Anon., 2007; *Test your English*, Anon., 2017). One hundred participants took the test at same time in two groups. The results were as shown as follows; Elementary 13, Pre-inter. 65, Upper inter. 22, Advanced 0.

Now, 65 sample subjects out of 100 are ready to randomly enroll into groups using RCT- (Kisker, and Dynarski, 2015). Yet, there might be a little more work to ensure the mastery over the distinguishing features of the observations so as to consequently lead to the comparability of the subjects amongst themselves (Luann, et al., 2012). Eventually, a selection of 50 individuals randomly assigned, i.e., random sampling. The subject assignment was done through using Mutli-stage sampling, i.e., adopting more than one stage of sampling procedures at a time. The two stages of sampling are Simple random sampling and Stratified random sampling in which both belong to probability sampling (Krob, 2012) under experimental study. The first phase of sampling occurred for making two groups as A and B, the groups were already available, though. Then, 25 subjects reserved in each group as A and B.

**4.2 Homogeneity of groups**

The homogeneity of the groups has been matched and formed by the use of Tech Savvy and Bio Survey. Face validity (for details about this issue, see appendix table 1) has been checked. Inferring from the sig. value (probability value) representing 0.362, one can clearly interpret that there is no significant difference whatsoever between the groups but rather quite non-significant accounting on the deduced value which is far more greater than 0.05. In case, the value appears lower than 0.05, then the difference is conceived to be statistically significant (Thisted, 2010). To sum up, the far more lower the inferred value to 0.05, the much more the statistical significance is.

**4.3 Instrument**

The instrument can vary from one sort to another accounting on the design, nature of the research and feasibility (Pandey and Pandey, 2015). It has been usually replicated that by the time of selecting the tool, the details and the rationale beyond implementing such a tool should be straightforward asserted (Creswell, 2009).

**4.3.1 Test**

An achievement test has been implemented. The test itself has fallen into two questions. Question one has the form of matching items and the second one providing responses in writing. Question one tests the students' sociocultural competence, whereas; the second strategic and sociocultural. Both questions comprise 35 items each with an overall of 70 items (for details about the test content and design, see appendix, table 2).

**4.3.2 SPCC approach**

SPCC approach refers to a measurement scale assessing individuals' communicative competence on the basis of self-perception. The abbreviation SPCC stands for Self-Perceived Communicative Competence (McCroskey and McCroskey, 1988) to gain personal report regarding how competent an individual thinks s/he might be on a number of basic criteria. The primary aim of this tool is to help the participants address, from their own perspectives.
The use of this tool is conceived very useful once it doesn't require factual precise evaluative information about one's ability to communicate in various unlike contexts (ibid).

**4.4 Piloting**

By definition, pilot study has been introduced as a purposive mini-attempt representing the whole case towards turning over several issues of a tool as a research tool for data collection (Pilot and Hungler, 1983, cited in Tichapondwa, ed. 2013).

**4.4.1 Validity of the test**

Validity has been defined as the extent to which a test measures what it intends to measure (Kimberlin, and Winterstein, 2008). Face validity has been processed to it as to finally determine the validity of the test in appearance (Willis, 2015). Ten jurors (for details about validity of the test, see appendix table 3) contributed to check face validity of the tests. Thus, the test appeared to be valid.

**4.4.2 SPCC scale**

The validity of this tool has already been proved and provided as it has been very often employed and been more effective in doing researches surrounding communicative competence issues. The evidence that the tool has got a strong content validity was examined by several researches and scholars (McCroskey & McCroskey, 1988; Richmond, McCroskey, & McCroskey, 1989, cited in Rosenfeld, L. B, Grant III, Ch. H, McCrosky, J. C., 1995).

**4.4.3 Item analysis, difficulty and discrimination indices**

Each term from the analysis stands for a significant value in pilot studies in which the former probes into the appropriateness of the item in terms of how difficult, moderate or easy an item is supposed to be answered by the majority of the test-takers, whereas the latter corresponds bitterly to the ability of differentiation of the scores between those of more capable students who will do well on the test and those of less capable who won't (Ebel and Frisbie, 1991).

Based on the classifications set up by Ebel and Frisbie (1991), the discrimination power (point biserial) could be found as follows.

| | |
|---|---|
| 0.40 Up | very good item |
| 0.30 to 0.39 | reasonably good but possibly subject to improvement |
| 0.20 to 0.29 | Marginal items usually needing and beings subject to improvement |
| Below 0 19 | Poor items to be rejected or improved by revision |

As a result, there have been **7** modifications or changes to the items of question, whereas; only **1** item received modification in question two.

**4.4.4 Test Reliability**

Simply elucidating, a test or a tool is proved to be reliable when it consistently will get dependable accurate results during a measuring process throughout a study (Pandey and Pandey, 2015). Using Cronbach's alpha, in SPSS program, for finding internal consistency reliability, the alpha coefficient for the whole test items turned out to be (**0.967**). As it has been claimed that the closer to (**1**), the higher the internal consistency- reliability (Stephanie, 2017; Kuthy and Patchell 2015). Inter –rater reliability was also processed for the second question only. The results were recorded as follows. Adopting Kappa statistics of inter-rater reliability- pre the intervention, the final result gained was (**0.986**). On the basis of scale interpretations of Kappa index- symbolized ($_{k}$). As the result is very close to (**1.00**), the inter-rater reliability has been proved excellent. The reference value ranges measuring the extent to which agreements between raters identified are as follows, values ≤ 0 indicates no agreement, 0.41– 0.60 does moderate, and 0.81–1.00 indicates almost perfect agreement (Shweta, Bajpai, R.C. and Chaturvedim, H. K., 2015).

**4.5 Pre- Post intervention, inter-rater reliability, the test**

The answer sheets were checked and scored by the researcher himself and by two co-raters (1) Kawa Qadir Muhammad, Assistant lecturer, and (2) Tahsin Hussein Rasool, lecturer, English Department, College of Basic Education /Salahaddin University- Erbil, at a

later time. Thus, by applying necessary equations, the gained value (k), prior to the intervention, came out as (0.991).

**4.6 SPCC approach Reliability**

The reliability index of this tool has already been found by in an initial study with (N.344) estimating (0.92), the reliability value, for the tool itself, turned out to be very high (McCroskey and McCroskey, 1988). On the other hand, the reliability index for the current study has also been processed. The Alpha coefficient was (0.831) indicating that there is a good internal consistency reliability.

**4.7 Procedure, Planning, Management, and Delivery of the Course**

The experiment formally launched at the very beginning of the academic year 2017-2018 in the late of October, 2017. Both tools English proficiency test and Biography and technology savvy survey were administered on the same day, Oct. 10th, 2017. The entire process lasted for twelve weeks, almost three months, ranging from November 26th, to the late of February, 18th, including both tests within in the academic year 2017-2018. The overall linguistic made-syllabus (for details about the syllabus see appendix table 4) includes seven chapters, corresponding to the contents of the game chapter, embedded into in PPT- PowerPoint presentations. The experiment and control groups were split into two other sub groups forming an independent sub-group each on their own. In brief, the whole process of delivering the materials for both groups can be seen as follows.

1. Teaching communication traditionally/ CG
2. Teaching communication with the help of video gameplay/ TG
   A- Playing the game, as in advance reinforcement activity as homework/ TG
   B- Showing the DVD of the chapter videogame after playing / TG

The below table shows the class division plus group own sub-groups per se. Also, class meetings are listed based on the hour allocation on each day as Sunday and Thursday.

**Table no……..**

| **Hours/Day** | **8.30 9.30** | **9.30 10.30** | **10.30 11.30** | **11.30 12.30** | **12.30 1.30** | **1.30 2.30** |
|---|---|---|---|---|---|---|
| **Sunday** | - | - | A1 Control 1h | A2 1h | B1Exper. 1h | B2 1h |
| **Thursday** | B2 1h | B1 Exper. 1h | A1 Control 1h | A2 1h | - | - |

As it is shown above, the experiment group, as it is symbolized by **B1 Exper**., was met on two different days, Sunday and Thursday at two unlike time shifts. Similarly, the same things happened to control group, **A1 Control**. The other two groups, **A2 and B2**, are the rest of individuals out of the experiment (having nothing to do with the study) that were meeting the classes regularly on weekly basis.

It is worth noting that teaching both groups, control and experiment, was absolutely different, as it is one of key condition of experimental studies. So, control group was taught in the traditional way- sometimes called as sage on the stage way where the delivery of the language content takes the regular form of teaching, conversely; teaching the experiment group had taken different form completely dissimilar to the one of control group. The materials were given directly through the videogame, Trace Effects, nothing else. There was also a strong rapport between the researcher and the subjects of the study with both groups based on trusted relationships (Coupland, 2003; Frisby and Martin, 2010). The purpose of such as relationship is to build and create further secure atmosphere and anxiety free situation.

One more significant issue is to do with the weekly plans and methodology of material delivery. Lesson plans were totally converted adapted into the weekly plans, as the major

basis of delivering the materials. Subjects were always in position to play the chapters of the game at the weekend at home to grant them enough time and freedom to review the game contents asynchronously and prepare the contents of the game well in advance. Once in the class for the following week- first hour, In brief, the whole process of delivering the materials for both groups can be seen as follows.

### 4.8 The videogame – Trace Effects

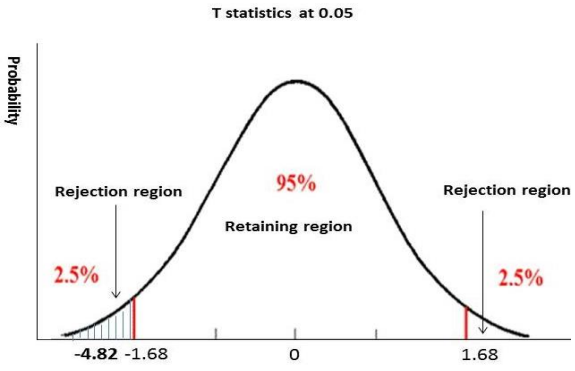
Trace Effects is the name of a videogame released by Ministry of State/ Bureau of Educational and Cultural Affairs/ USA for the first time in 2014 (United States Department of State, 2012).The videogame is, by definition, a 3-D software program that is available through two mutual bases as DVD and an online resource. By the same token, the videogame has been serving globally as one of the key effective tools in the area of ELL.

## 5. Statistical, Data Analyses and Their Interpretation

### 5.1 The test

Based on adequate statistical analyses, the availability of statistically significant dissimilarities between the two sessions of testing process showed up. The values totally affirm the claim through the comparison of the means of the calculation as (**56.10**), whereas, they have recorded another quite different value unlike the baseline stage which was (**74.32**) by the end-line stage of the entire process. The big differences between the two are a promising indicator of achieving and recording better performances after some period of time. The results depict the perceived difference which is statistically affirmed by the Significance value, (**0.00**) since the sig. value is less than the p. value (**0.05**). Thus and again, the results show that the students have made it to make an attempt towards causing improvement in communicative competence.

The Paired Sample Test also does a very good job in testing the hypothesis. Thus, T value, which is a value that simply signals the retaining or rejection area on the t-statistics chart has been come out as **-4.82**. As it is obviously shown on the graph, t value is situated right after, critical value, since the numerical is smaller than **- 1.68**. Consequently, it can be reported that the research's null hypothesis should be completely rejected since there is a statistically significant difference between the performances of both groups as control and experiment in which the latter recorded greater achievements by large.




ANOVA test does have a lot of importance in settling down final results concerning whether or not which group under investigation has ultimately aced it to perform better. Now, as the test has run, the following findings have been gained. Based on the value sequenced in the group row in *tests of between –subjects effects* table, the significance value generated (**0.000**) extracts the evidence that either subject group of the study has done much better than the counterpart since the obtained sig. value appeared much smaller than the p value (**0.05**). Thus, it is also worth reminding ones that there should definitely a cause beyond such as radical change after all which can be braggingly attributed to the blessing side role of the videogame play. In other words, playing the videogame, *Trace Effects*, has thus positively and substantially contributed to sprouting such a vast improvement in the students' linguistic domain. Moreover, the accomplishments that the students have recorded in the experiment group at the test has perfectly added to the advantages of the research hypothesis and objectives and given rise to the well-fit change in improving English language learning by

large. Nevertheless, what the subjects have been doing in response to test questions is regarded as a striking turning point towards academic triumph. However, the forms and the requirements of the items on the test might not have considered easy whatsoever by the test-takers. That is, the results have successfully extracted significant differences between the two groups and similarly approximated towards identifying the cause beyond recording such a marvelous difference which attributes to the role of the videogame play after all. The importance of playing the videogame has not been given its authentic value, however; the role of it in contributing change has already been taken for granted.

Linguistically talking, it can be claimed, based on the inferred findings, that playing the videogame by the students in experiment group has massively contributed to emerging change in their language learning behavior. Furthermore, one can briefly add up to the merits of playing Trace Effects for learning and improving communicative competence, namely; sociocultural and strategic ones. Additionally, the findings have completely arguing for the beneficial effective role of such a videogame for improving the players' communicative competence. As the videogame contents contain numerous techniques and problem solving strategies, the players have amazingly got benefit from them and applied and added to their previous skills during answering the question items on the test. Nonetheless, the players have made lofty use of the **principles of language use** in different contexts mirroring out of the videogame's content and were almost surprisingly able to adopt them to the real world outside.

**5.2 SPCC approach item analysis**

Statistically speaking, there can be enough vivid evidence that the students' performances during both trials of self-evaluations have witnessed big difference in communication skill improvement since the means of pretrial drawing 69.67 and post-trial 78.40 can tell. Not only can the so-called table pay worthwhile tribute to such a big difference of performance through the comparison of the means of both trials, but there is also another means of trustworthiness that can obviously claim such an alleged statement having already been posited. As the records that statistics come up with have shown, there has been a roughly strong positive relationship amongst the items of the approach as far as the concluded statistics have revealed it at 0.658 which is very close to the index value of 0.70. As far as the significance value of the paired sample test indicates represented by p. 0.02, there can be ample efforts towards corroborating the interests of an advent of a statistically significant difference between the two sessions of the SPCC approach implementation in practice.

The reported results reiterate the significant role of the videogame, Trace Effects, for promoting English language learning on the part of the players especially in terms of communicative language skills. There can still be worthwhile claims towards the effectiveness of learning English via fun and entertainment from the students' own personal evaluative perspectives, by taking a diverse method though. Last but not least, what the students have already provided thanks to doing in response to SPCC approach is something of a lot worth being addressed since the approach itself allows for almost sincere confession for their strong and weak points during taking and undergoing a course such as of the experiment.

As compared to the results obtained from the surveyed literature, similarities and differences can be drawn among the results of current study and the rest. Reviewed from the previous literature, the most benefited field of language learning goes to vocabulary. By contrast, the current's study's main focal result is on improving communicative language skills, communicative competence, for instance. Also, deduced from the current study' results, some technical skills like problem-solving, self- confidence and quasi-independent learning have been formed due to playing *Trace Effects* in contrast to the empty attempts to find none of these mentioned earlier. Both the current study and some of the rest of researches match in terms of proving the claims concerning the usability of CALL tools in providing

access and facility into learning. Similarly, one of a common area of language learning which has been improved and practiced is assessment and feedback. Most importantly, none of the reviewed study has highlighted the values of an extra intensive activity such as doing homework, corresponding to playing videogame in the current study, as well as adopting an extra supportive tool as SPCC for the confirmation of obtained results via playing videogames. Last but not least, all the studies might have used a tool for applying the experiment but only one of them has used an educational videogame as Trace Effects just as the current one.

## 6. Concluded remarks

Playing the videogame, *Trace Effects*, has formed the solely major cause of improvement and learning. It has also served as the key discerning factor between the two groups namely, control and experiment. Subjects in experiment group, compared to their counterparts, have witnessed giant changes in improving their sociocultural and strategic competence. Definitely, the videogame has successfully captured the players' attention towards meeting educational as well as entertaining tendency for learning. Technology enables to create a friendly fascinating atmosphere under which the students can absorb much fun during and within taking different classes although the classes might sound big sometimes. It has contributed to increasing motivation towards learning, bringing back the importance of homework as a form of external extensive activity onto the ground, and forming semi-independent learning. Practicing virtual reality of the second/foreign language's culture has been the core point of interest for the players to absorb.

Obtained from SPCC approach, the players have reiterated the incredible use of videogames for learning and improvement due to their better achievement records post the intervention about their communicative competence skills level and scale.

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## 8. Appendices

**Table (1) Jurors' biography of the Tech Savvy survey face validity**

| No. | Name | Academic Rank | Country |
|---|---|---|---|
| 1. | Fatima Rasheed | Professor | Iraq |
| 2. | Saman Ebadi | Associate professor | Iran |
| 3. | Ali Mahmood Jukil | Assistant professor | Iran |
| 4. | Nian Ghafoor | Assistant professor | Iraq |
| 5. | Kavee Shakir | Assistant professor | Iraq |

**Table (2) Jurors' biography of the test items face validity**

| **No.** | **Name** | **Academic Rank** | **Country** |
|---|---|---|---|
| **1.** | Anis Behnam Naoum | Professor | Iraq |
| **2.** | Hayo Reinders | Professor | The United States |
| **3.** | Saman Ebadi | Associate professor | Iran |
| **4.** | Ali Mahmood Jukil | Assistant professor | Iraq |
| **5.** | Ayad Hameed | Assistant professor | Iraq |
| **6.** | Kawa Abdulkareem Rasul | Assistant professor | Iraq |
| **7.** | Salam Nawkhosh Bakir | Assistant professor | Iraq |
| **8.** | Niamboue Bado | Instructional Designer | The United States |
| **9.** | Salam Hakeem | Instructor | Iraq |
| **10.** | Nian Kamil | Instructor | Iraq |

**(3) Test questions table**

Q1/ Match the following expressions on the left with their usages on the right. There is one extra usage.

**A**

| **No.** | **Expressions** | **Letter** | | **Usage** |
|---|---|---|---|---|
| **1** | **"See you!"** | | **A** | A form of **request** |
| **2** | **"Good job**!" | | **B** | You are **not sure about somewhere** someone is. |
| **3** | "**Sounds great**! I am sure it will succeed." | | **C** | A way of **applauding** |
| **4** | **"Can I see** your ID first?" | | **D** | A way to say "**goodbye**" to a friend |
| **5** | **"Maybe at the library**, but you need a new ID." | | **E** | Another way for **saying sorry**, 'Apology' |
| **6** | | | **F** | An excited way to say "**Yes**". |

**B**

| **No.** | **Expressions** | **Letter** | | **Usage** |
|---|---|---|---|---|
| **1** | "**Adieu**, **adieu**, I must bid thee adieu!" | | **A** | A way to **make an offer** |
| **2** | "**Not interested**. Thanks. See you around." | | **B** | A way to say "**goodbye"** |

| | | | | |
|---|---|---|---|---|
| **3** | "Hey, Trace, I'm Tyler. **That's cool**." | | **C** | A way to **show unwillingness** |
| **4** | **Would you like some soup?** It's made from vegetables. | | **D** | Another way to say "**okay**" or "all right" |
| **5** | My pleasure. **Good luck with the election**. | | **E** | A way to **make a wish** |
| **6** | | | **F** | A way to **show uncertainty** |

**C**

| No. | Expressions | Letter | | Usage |
|---|---|---|---|---|
| **1** | "I'**m off**!" | | **A** | A way of asking "**What do you need**? "or "What are you doing?" |
| **2** | "It's **a deal**! I'll tell Andre you both can play." | | **B** | A way **for making an offer** |
| **3** | "That's me. **What's up?**" | | **C** | A way to say that **you are leaving**, or to say **goodbye** with friends |
| **4** | "I guess you're off the hook, Trace. **Do you mind if** Jasmine plays? " | | **D** | It is said when one **agrees on** something |
| **5** | "Michael, you **stay** here and **mind** the shop." | | **E** | It is used to ask **for permission** |
| **6** | | | **F** | A form of m**aking request or command** |

**D**

| No. | Expressions | Letter | | Usage |
|---|---|---|---|---|
| **1** | "Yes, we really **appreciate** your help." | | **A** | A way of **giving directions** |
| **2** | "**Go for it**! Bye, guys." | | **B** | A way to say "**You're right**!" |
| **3** | "We **wondered** if you printed all the newspapers around here." | | **C** | Another way for **making request** |
| **4** | **Go around** the pile and **head down** toward the river. | | **D** | A way to say "**Good luck**!" or "**Keep trying**!" |
| **5** | **"I'm with you**!" | | **E** | It means to **think about something** you **do not know** the **answer** |
| **6** | | | **F** | A **polite way to say "thanks"** |

**E**

| No. | Expressions | Letter | | Usage |
|---|---|---|---|---|
| **1** | "Don't go...**it's going to start** snowing any minute." | | **A** | A way to "**wish something**" |
| **2** | Wow, **that's very nice of you**. I've been rushing around all day. | | **B** | A way of "**making suggestion**" |
| **3** | **"Now if only it were** still baseball season. Then I'd be in heaven." | | **C** | A form of "**request**" |
| **4** | **Perhaps you could use** it to decorate your cake. | | **D** | Used as "**prediction**" |
| **5** | I wish I weren't working here at the newsstand. **I'd rather become** a fashion designer! | | **E** | A way to say "**thanks**" |
| **6** | | | **F** | A way of expressing "**Preference**" |

**F**

| No. | Expressions | Letter | | Usage |
|---|---|---|---|---|
| **1** | "**Sure**! **Happy to help**!" | | **A** | Used to **permit somebody to do** something |
| **2** | Hi, Annie. I'm Trace. **Would you let me try them out**? | | **B** | An informal way to say "**You're welcome"** |
| **3** | **I'm afraid not**. **Unfortunately**, I forgot to buy coffee beans. | | **C** | Used to address "**non-factual situations**" |
| **4** | **Wow**, I feel so much better now. Thank you! | | **D** | Used as **request** |
| **5** | "You look like you have a cold! **If you were** part of my demonstration, I could **cure** you." | | **E** | Used as **apology** or **feeling sorry** |
| **6** | | | **F** | A way of showing **surprise** |

**G**

| No. | Expressions | Letter | | Usage |
|---|---|---|---|---|
| **1** | "**You ought to ask** the docent. She's around here somewhere." | | **A** | A way to say "**Excuse me**" |
| **2** | **"What on earth?** That is preposterous." | | **B** | A form of **praising** someone |
| **3** | "**That's a good point**! I never thought about it like that!" | | **C** | A way of **suggesting** something to someone |
| **4** | Wow! **You did it**! I guess this is goodbye. | | **D** | An **exclamation** used to **emphasize shock, anger**, etc. |
| **5** | "**Sorry to bother you.**" | | **E** | A way of **emphasizing success** |
| **6** | | | **F** | A way of **accepting an idea** |

Q2/ Restate the underlined structure to mean the same.

1. "**So long!** Have a nice journey."
2. Yes, it **sounds delicious**!"
3. "I **conducted some research.**"
4. **Glad to meet you**, Trace.
5. **Would you mind** waiting here?
6. "Oh my! **That's incredible**. It's as smooth as satiny silk, as pungent as an evening rose"
7. "Please read this brochure. It tells how veggies **are good for you**."
8. "Can I just **have a minute** of your time?"
9. "Sadly, **time is of the essence** for me at this juncture."
10. - **How much** is it?
    - Sure thing. That'll be $1.50.
11. "We need to have a concert **to raise money**."
12. "It might **take a while**."
13. **Would you like to** play in the band again?
14. "**I've got** to run. Bye, Olivia."
15. "**That's good,** but where will we play?"
16. "Here's a can. **It goes into** the aluminum bin."
17. "The pictures **might convince** him."
18. "It **looks like** good exercise, too.
19. "The river **is being destroyed** by pollution."
20. "I would love to. I **can't wait** to see New York!"
21. "Eddie, **I need you to run some errands** for me."
22. "**How about a candle?**
23. **"I have enough money to live on**, but music and playing are my dream! I wouldn't do anything else."
24. "Yes, **she was very talented**. Trace, you're a very persuasive young man."
25. "Well, **your plan worked**; if it makes you happy, you can enter the fashion design contest."

26. "Let's **check in with** the Professor and Kit."
27. "I'll **keep my eye out** for someone!"
28. "Trace, your picture **is all over the campus**. Henry Tattle is saying you are an alien"
29. "I have to find a way to charge them, but **I can't leave** my booth."
30. "While I was here, I got some new ideas for how **to fix the time machine**!"
31. **"No way**! Space travel is more important!
32. "You look upset—**what's the matter**?
33. "Hmm. I don't know **what went wrong**! Kit, I was sure we had this equation figured out."
34. "No, I **don't care at all** about the illustrations."
35. "Sounds like a plan. And **let's keep our eye out for** neckties!"

**Table (4) Syllabus content table**

| **Language Function** |
|---|
| - Expressing thanks<br>- Expressing appreciation<br>- Making requests<br>- Polite questions<br>- Offering an item |

- Asking for clarification
- Permission
- Expressing disinterest
- Suggestions
- Expressing desires (wish)
- Politeness in disagreeing with someone
- Refusing without saying “no”
- Saying bye
- Possibility
- Asking for opinion
- Giving opinion

**کارامەیی پەیوەندی کردن، فیربون بە هۆی یاریە ئەلیکترۆنیەکان**

**پوختە**

لیکۆلینەوەکە هەوڵێکە کە تیایدا تاقی کردنەوە لەسەر رۆڵی تەکنەلۆجیا – یاریيە ئەلیکترۆنیەکان دەکات و توانا شاراوەکانی دەردەخات لەمەر فیربوون، بە مەبەستی فیربون و باشتری کردنی ئاستی فیربون بە تایبەت لە بواری زانیاری زمان لە رووی کۆمەلایەتی کەلتوری و ستراتیژی یەوە. تویژینەوەکە تایبەتمەندی چەندیەتی هەیە کە مەبەستیەتی بری ئەو گۆرانکاریانە پیشان بدات و بکۆلیتەوە کە بە هۆی یاریەکەوە Trace Effects، دینە ئاراوە. مەبەستی باسەکە لیکۆلینەوەیەکە لە کاریگەری راستەقینەی یاریەکە Trace Effects ، لەمەر باشتر کردن و پیشخستنی زانیاری زمانی یاریکەران لە رووی کەلتوری کۆمەلایەتی و ستراتیژی یەوە. لە پیشبینی لیکۆلینەوەکە هاتووە کە یاریکردن بە ڤیدیۆگەیم هیچ کۆرانکاریکە دروست ناکات لە ئاستی زانیاری فیرخوازانەوە. باسەکە بەم خالانەی خوارەوە گەشت، یاریيە ئەلیکترۆنیەکان رۆلێکی کاریگەر و بەرچاویان هەیە لە کردەی بەرەو پیش بردن و پیشخستن و فراوانکردنی زانیاریی پەیوەندی کرد نلە لایەن فیرخوازانەوە. هەروەها هاتووە کە یاریيە ئەلیکترۆنییەکە ، Trace Effectsهۆی سەرەکی هینانە کایەوەی گۆرانکاییە لە ئەدای فیرخوازانی گروپی تاقی کردنەوە بە بەراورد بە گروپی ئاسایی. گۆرانکارییەکان لەم بورارنەی خوارەوە بەدی دەکرین، بنیات نانی کەشیکی ئارم بۆ خویندن، بەدەست هینانی زانیاری ئای تی، سود بینین لە راهینانە دەرەکییەکان وەک ئەرکی ماڵەوە، دروست بوونی فیربوونی نیمچە خودی لەلایەن یاریکەرانەوە، ئاویتە بوون بە ژینگەی شیوە راستەقینە و کەلتوری زمانی مەبەست بۆ فیربوون. فیرخوازان سود و رۆڵی یایەکەیان دووپات کردەوە بەهۆی هەلسەنگاندنیانی خودی بۆ ئاستی فیربوون و گۆرانکاری لە بواری فیربوون دا بە بەکارهینانی ئامرازی.(SPCC)

**لكفاءة التواصلية، التعلم بواسطة الألعاب الرقمية**

**ملخص**

هذه الدراسة عبارة عن محاولة تجريبية تعتمد على الألعاب الرقمية (DGBL) والتي تعالج قضايا تعليمية محتملة تتجاوز الاستخدام المتكرر للألعاب وإمكانيات تعلم اللغة بشكل أفضل. البحث يعتمد على الجانب الكمي من اجل الوصول الى نتائج محققة في النتيجة. تهدف الدراسة إلى اكتشاف التأثيرات العملية للعبة من الألعاب الفيديو وهو لعبة (Trace Effect)، على تحسين الكفاءة التواصلية للاعبين من ناحية اجتماعية ثقافية واستراتيجية. من المفتراضيات الدراسة أن (لعبة ألعاب الفيديو لا يمكن أن يخلق أي اختلاف في الأداء بين مجموعات من الموضوعات لتحسين تعلم اللغة الإنجليزية. خلصت الدراسة إلى ما يأتي، لعب لعبة الفيديو يمكن أن تدخل بشكل فعال في عملية تحسين تدريس اللغة الإنجليزية كلغة أجنبية لطلاب الجامعة. من ناحية أخرى، إن تشغيل لعبة Trace Effects، يكون السبب الرئيس الوحيد للتحسين والتعلم في المجالات التالية ، وخلق جو رائع للاعبين، ورفع مستوى مهاراتهم التكنولوجية ، وزيادة الدافع نحو التعلم ، والاستفادة من الواجبات المنزلية كشكل من أشكال النشاطات الواسعة، وتشكيل تعلم شبه مستقل ، وممارسة الواقع الافتراضي للثقافة اللغة الثانية/ الأجنبية.