The Impact of Using Interactive Whiteboard on Developing the Grammatical Competence of Iraqi EFL Learners

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Abstract

Grammar instruction is the most focal element in language teaching for EFL students and can be employed as a means of improving the foreign language learning. It raises students' understanding of major ideas in a text, exploring the text structure; it seems to be essential for good use of language. Researches have shown that different types of teaching strategies are suggested to improve the ability of learning grammatical rules. The Interactive Whiteboard is adopted in the present study as a teaching aid that can be used to facilitate communicative and meaningful learning. Therefore, this study aims to investigate the effect of employing Interactive Whiteboard in teaching grammar on developing Iraqi EFL learners' grammatical competence. The null hypothesis states that there is no statistically significant difference between the mean scores of the students who are taught grammatical structures using the Interactive Whiteboard and that of the students who are taught these structures using the method recommended by the teacher's book. The population of the present study is the female students of the fifth-grade (the scientific branch) preparatory schools in Baghdad during the academic year ٢٠١٦-٢٠١٧. The sample of the study involves ٨٣ students. The experimental group consists of ٤٢ students whereas the control group consists of ٤١. These two groups are randomly chosen from Baghdad Preparatory School for Girls in Baghdad. The subjects of both groups are equalized in the level of their parents' education, their age, their achievement in English in the mid-year exam, their grades on the pre-test, as well as some extraneous factors. To fulfil the aim of the study, an experiment is conducted using a non-equivalent pretest posttest control group design. These groups are taught the same material, which contains three units from the textbook *English for Iraq* ٥*th preparatory (units* ٥*,* ٦ *and* ١*)* except for the Interactive Whiteboard, which is introduced to the experimental group only. The researcher herself taught the two groups. Two versions of an achievement test (pretest and

posttest) are constructed by the researcher and exposed to a jury of experts to verify their validity. The method used to estimate the reliability of the test in the present study is the Cronbach alpha method, yielding a reliability coefficient of ٠,٨٩٦ which indicates that the test is reliable.

Item analysis is carried out to determine the effectiveness of the items in relations of their discriminatory power and difficulty level. Then the tests are administered to the sample of the study prior to the experimental period and after it. The data of the post-test are analyzed statistically, using the t-test formula for two independent samples. The findings indicate that there is a statistically significant difference between the two groups in favour of the experimental one in the grammatical structures achievement. The t-test also indicates that there is a significant difference between the pre and posttests scores for the experimental group in favour of the post-test showing significant development.

It is concluded that the use of Interactive Whiteboard has a positive influence on the grammatical competence of the learners. Based on the findings of the study, a number of recommendations are stated and suggestions for further studies are put forward.

١-Introduction

Grammar is fundamental to language. Without grammar, language does not exist. Therefore, the role of grammar teaching has been very significant in the field of language pedagogy.

Widodo (٢٠٠٦:١٢٢) reports that the importance of grammar in language teaching is achieved in that learners' language progress will be hardly controlled without a good understanding of grammar rules. Basically, in the grammar teaching, pupils are taught structures of language usually recognized as sentence forms. According to Ur (١٩٩٩:٤), learning grammatical rules is a great guide for the learners to produce correct order of sentence structure. In grammar teaching the attention should also be focused on the way sentence patterns or grammatical structures are properly employed. (ibid).

Therefore, when teaching language, grammar is an indispensable element of any syllabus, be it structural or communicative. To communicate easily and effectively, one should master both linguistic competence as well as the communicative competence which focuses on the native speakers' ability to understand and produce sentences which are appropriate to the context in which they occur (Richards and Renandya, ٢٠٠٢:١٤٧).

On one hand, it is believed that grammar provide the basis for a set of language skills: listening, speaking, reading and writing. On the other hand, as Harmer (٢٠٠٧:٢١٠) holds, grammar teaching sometimes happens as a result of other work the students are doing; for example, when they study language in a text they have been listening to or reading. In a focus-on-form approach the grammar teaching may develop directly from the tasks students are performing or have just performed (ibid).

To cope up with the new developments in the area of foreign language teaching, the Iraqi Ministry of Education has selected and designed textbooks that are based on the principles of communicative language teaching and introduced them to Iraqi EFL learners. However, after a long time of using these textbooks, the Iraqi learners of English do not have full mastery over English grammatical system and cannot communicate effectively in real life situations. This is well documented in the literature on teaching English in Iraq. For example, one may have a look at the following studies: Abdul-Razzaq(٢٠٠٢), Al-Kaisy(٢٠٠٥), Alwan(٢٠٠٦), and Ghayadh(٢٠٠٧). Ghayadh(٢٠٠٧:٢), for instance, stresses this idea by stating that Iraqi EFL learners cannot differentiate between grammatical patterns.

Grammatical structures are not easy to master because of the diversity of the grammar systems of both Arabic and English. Therefore, teachers should reflect deeply on this aspect and should try hard to experiment with new techniques that may prove effective to redress this problem which is highly documented in the literature of ELT.

Hence, the problem of the present study stems from the fact that the performance of Iraqi EFL learners is not up to the required level as documented above. Therefore, the researcher intends to carry out an experiment using Interactive Whiteboard (IWB) hoping to take part in presenting a solution, and to find out how the use of IWB may help in teaching grammar. According to ITILT (٢٠١١:٣٧), an IWB helps in bringing situations of real life into the classroom. A suitable situation should be set up by the teacher to increase learners' experience of the target grammar by preparing consciousness raising tasks that will aid learners in noticing and uniting their knowledge of grammar and planning educational tasks that will supply the learners with chances to use the target grammar purposely.

The significance of the problem is in fact that grammar is regarded to be a crucial element of the language needed by EFL learners. To the best of

the researcher's knowledge, no study has dealt with using IWB in teaching grammar in Iraq.

٢- Aim of the Study

This study aims at investigating the impact of using Interactive Whiteboard in teaching grammar on developing Iraqi EFL learners' grammatical competence.

٣- Grammar and Grammatical Competence

٣,١ What is Grammar?

Grammar means how words and structures come together to make meaningful relations (Fontain, ٢٠١٣:٤). Greenbaum (١٩٩٦: ٢٣) says that the grammar meaning can be employed in various ways, both in everyday language and as a practical word. Grammars may cover different aspects. They may occasionally confined to syntax, the methods by which words are formed into structures of phrases, clauses, and sentences. However grammars can involve describing one or more other language parts: such as *morphology* (the structure of the words), word formation, *phonetics* (the sound patterns), *phonology* (the distinctive sounds and sound patterns), *orthography* (the conventional spellings), vocabulary**,** *semantics* (the meanings of words and sentences), and *pragmatics* (the interpretation of utterances in their contexts).

Crystal (٢٠٠٨:٢١٧) assumes that grammar is a central term in linguistics covering a wide range of phenomena, being used in mass noun and count noun meanings as well ; more specifically : *particular grammar* and *general grammar*. Further exactly, grammar may refer to the explanation of a language structure and how linguistic units such as words and phrases are consolidated to bring about sentences in a given language. It generally considers the meanings and functions these sentences have in the overall system of the language (Richards & Schmidt, ٢٠١٠:٢٥١).

On the other hand, Palmer (١٩٧١:٢) regards grammar as a resource of describing the language of native speakers. He stresses that grammar does not mention to what is found in the students′ books written down or learnt by heart. Meanwhile, Kohli (١٩٩٩: ١٣٨) defines grammar linguistically as the complete collection of signs by which a provided language expresses meaning and the total structure of a language, while pupils see it as the revision of sentences analysis and terminology.

٣,٢ The Importance of Grammar in Language Teaching

Today English has become the most commonly used language around the world. An ever-growing desire to learn it is well noticed. Greenbaum and Nelson (٢٠٠٢:٥) confirm that the language study is an amount of

general knowledge. The amazing complexity of human language has the attraction to study it. When studying a language, grammar comes as the prominent element in the study. There are numerous purposes for studying grammar which can be illustrated as follows:

(١) It is essential to identify the grammatical structures.
(٢) Studying own intuitive grammar is helpful to study the grammar of a foreign language.
(٣) A grammar knowledge is useful in interpreting literature and cultural texts as the meaning of the text depends on the analysis of grammar.
(٤) The grammatical resources study of English is useful in writing composition as it highly contributes in evaluating the choices available to anyone to revise an earlier written draft (ibid).

Richards and Renandya (٢٠٠٢:١٤٥) argue that the future of English as a global language has always been considered the base of teaching the language. A hundred years of debate still questioning if it is necessary for grammar to be regarded a primary focus of language instruction or should be neglected completely, or should be subordinated to meaning-concentrated use of the target language is continuing in the tradition (ibid). But once again, the necessity for grammar is drawing the attention of researchers and teachers of SLA, Krashen supposes (١٩٨١:١٦٨) the difference between conscious learning and unconscious achievement of language. Krashen claims that language should be acquired through natural exposure, not learned through formal instruction. While, Greenbaum (١٩٩٦:٣٦) suggests that grammar (in the sense of 'syntax') is generally regarded as central to linguistics, and it should therefore be included in a linguistic curriculum on its own terms.

Doughty(٢٠٠١:٢٠٦) and Ellis(٢٠٠٢:٢٢٣) state that most L٢ researchers approve that the target structures and forms noticing or awareness shows an indispensable position in L٢ education and is essential if pupils were to develop high levels of accurateness in the target language.

Nassaji and Fotos (٢٠١١:٧) stress that many researchers now believe that grammar teaching should not be ignored in L٢ classrooms. There are a number of justifications for this re-evaluation of the role of grammar. First, it is hypothesized that language can be learned without some consciousness amount has been establish to be theoretically difficult. In addition, there is plentiful empirical evidence that teaching methods that focus primarily on meaning with no focus on grammar are insufficient. Third, recent SLA investigation has shown that instructed language learning has possible

influences on both the degree and the eventual level of SLA. On the other hand Lin (٢٠٠٨: ٤), believes that that without grammar, people should have only separate words or sounds, body language and pictures to communicate meaning.

In brief, the modification of grammar teaching in L٢ classroom, agreeing to many researchers and scholars has positive impacts on grammar lessons as their practical and based studies of classroom.

٣,٣ Types of Grammar

A- The First Classification

Grammar can be chronologically classified into prescriptive and descriptive grammar:

١-prescriptive Grammar and ٢-discriptive Grammar

B- The Second Classification

Greenbaum (١٩٩٦:٢٩), gives a clear difference between

١-pedagogic grammar and ٢- reference grammar.

C- The Third Classification

On the other hand, grammar is also classified into:

١-functional grammar and ٢-formative grammar.

٣,٤ The Grammatical Competence

Grammatical competence comprises all lexical items knowledge and of rules of morphology, syntax, sentence grammar semantics and phonology (Purpura, ٢٠٠٤:٥٣). Thus it implies managing the pure language aspects of the language code itself, regarding verbal and non-verbal codes. This agrees to the grammatical aspect of Hymes which comprises the lexicon, syntax, phonology and semantics knowledge. Therefore, it involves rules of formulations and limits for students to match sound and meaning; to form words and sentences using vocabulary; to use language through spelling and pronunciation; and to handle linguistic semantics (Larsen-Freeman, ٢٠٠١:١٢٠).

For Lock (٢٠٠٢: ٢٦٧), grammatical competence is an important amount of communicative competence and the improvement of the communication is the product from the relation among communication and grammar. Diaz-Rico and Weed (٢٠١٠:٢) claim that grammatical competence act to promote accuracy and fluency in L٢ production and increases in importance as the learner advances in proficiency.

٣,٥ Competence Versus Performance

Chomsky distinguishes between competence, which is an ideal capacity, from performance which means the ability to produce actual utterances. Chomsky adds that competence is the 'mental reality' that has

the responsibility for all those aspects of language to be used which may be characterized as linguistic. Thus, a central difference has to be made between competence and performance (Wikipedia, ٢٠١٢:٢).

Gupta and Singla (٢٠١١:٥ as cited in Safriyani, ٢٠٠٩:٧) say that competence is placed as a property of psychological or mental. This is in contrast to performance, which refers to an actual event. Chomsky claims that only in case of a perfect situation whereby the speaker-hearer is unaffected by grammatically irrelevant conditions such as memory limitations and interruptions, performance can be a direct reflection of competence. Whereas the terms performance (Chomsky) and parole (de Saussure) may be used interchangeably, their equivalents' competence and langue are quite different from each other. Langue is a fixed signs system, whereas competence is recognized as a dynamic idea, as a mechanism that will generate language endlessly. The theory of Chomsky is more psychological. It's an association of a person with a group of grammatical rules and is different from the activities of actual linguistic. Linguistic competence includes components such as phonetics, phonology, syntax, semantics and morphology.

Likewise, Craig (١٩٩٨:٣) agrees that competence allows native speakers to diagnose ambiguous sentences or accept even seemingly meaningless sentences as syntactically correct.

Performance is the world of real linguistic output. It might reflect competence in an accurate way, but it also may include speech errors. Performance might be imperfect because of memory limitations, distractions, shifts of attention and interest, and errors or other psychological factors. It represents only a small sample of possible utterances (ibid).

٤- IWB Theoretical Background

The interactive whiteboard (IWB) is considered as a tool for education which helps the development of multiple intelligences and skills (Campregher,٢٠١٠: online). In recent years, the Iraqi government has provided some institutions and schools with this tool to be used in teaching with an aim to extend resources as well as enhance the learners' learning process. Numerous teachers have welcomed this technology with great enthusiasm. Many teachers have been enthused with this technology to develop their proficiency in teaching and facilitate learning.

Nowadays, various forms of technology have been employed in the classroom. From the mid-١٩٩٠s, electronic IWBs have been used, and realized as good examples of innovative technologies implemented in the

modern classroom (Beeland ٢٠٠٢: online). A touch screen smart board is positioned in the centre of the IWB, which enable learners to experiment, solve, write and erase applications, such as visual experiments, visual animations and graphics. IWB is a modern teacher's tool that influences the learning process in many ways.

However, Betcher and Lee (٢٠٠٩:٨) observe that the pen, paper and teaching board are the most ordinarily used tools in schools. They find that the teaching board is an important tool that helps teachers to teach in the classroom and it provides insights into how IWBs may differ from other classroom technologies. IWB is a technology which combines the benefits of all teaching aids like the chalkboard, whiteboard, video, overhead projector, CD player and computer in one.

However, iTlLT(٢٠١١:١٨) reports that the IWB can be utilized in a communicative and productive method to allow learners to interact with the board to produce language. It can support teachers and students in the process of learning different language skills by balancing the task demands and supporting learners with visual aids.

٤,١ Definitions

The British Educational Communications and Technology Agency (BECTA, ٢٠٠٣: online) defines IWBs as follows:

> *An interactive whiteboard is a large, touch-sensitive board which is connected to a digital projector and a computer. The projector displays the image from the computer screen on the board. The computer can then be controlled by touching the board, either directly or with special pen.*

Northcote et al.(٢٠١٠:٤٥٠) point out that the software of IWB permits the copying of non- digital technologies such as flipcharts or video players as well as the creation and modification of interactive images. IWBs, sometimes referred to as electronic whiteboards or smart boards, are devices that connect to a computer, which in turn is connected to a multimedia projector.

According to Mercer et al.(٢٠١٠:١٩٥ as cited in Whyte, ٢٠١٥:٢٨), IWB can be networked with other information and communication technologies (ICT) equipment, such as web-linked computers, scanners and laptops operated by children in the class. In fact, the IWB is not really one educational tool, but rather it can be used to present various kinds of educational activities.

٤,٢ Types of IWBs

There are various types of IWBs all over the world and below are some kinds mentioned by some authors. Scrivener (٢٠١١:٣٣٦) argues that there are two main types of IWB: *Fixed IWB*- is an electronic board fixed to the wall, usually in a place of the normal board. There is a projector, usually attached to the ceiling and a computer somewhere accessible. *Portable IWB*- is a small box that can be placed at the bottom of a standard non-interactive whiteboard to add interactivity.

Smith et al. (٢٠٠٥: ٩٩) see that some boards, such as the IWBs, are touch-sensitive, and others rest on an invisibly gridded whiteboard and an electronic pen. Slay et al. (٢٠٠٨:١٣٢) state that most IWBs have two modes: *computer control mode* and *writing mode*. Once the IWB is controlled by computer mode, a pen, or stylus, acts as the mouse, and a tap as a mouse click. In writing mode, the pen, or stylus, acts as an actual writing implement, with the computer producing digital ink on the projected image. *Smart Board Technologies* (٢٠١١:٢) reports that there are various types of IWB but usually IWB links a whiteboard with a computer and a data projector and allows teachers and students to control applications by touching the screen with their fingers or writing with a non-ink pen tool.

Kent (٢٠٠٨:١٧) and Betcher and Lee (٢٠٠٩:٢٣) mention different types of IWB technologies. Here is an overview of the various IWB technologies available.

١-Front-projection boards
٢-Analogue resistive membrane technology
٣-Electromagnetic pickup technology
٤-Ultrasonic tracking technology
٥-Plasma overlay technology

٤,٣ IWB as a Teaching Tool

According to Campregher (٢٠١٠: online) the utilization of the IWBs as an inventive tool for teaching inside the classrooms meets various intelligences and learning styles of the learners. For BECTA (٢٠٠٣: online) IWB has different potential applications such as: in teaching whole-class a teacher can use web based resources, to help explain concepts by displaying video clips , presenting students' work to the classroom, making digital flipcharts, manipulating text and practicing handwriting, and saving notes on the board for future use.

Many reasons encourage teachers to implement IWB such as attracting learners' attention, complex ideas can be clarified, the teaching process will

be easier, and learners' interaction will be enhanced (Gashan and Alshumaimeri, ٢٠١٥:١٧٧).

IWB might be employed by teachers in their teaching classes to present magnificent interactive multimedia, utilizing various kinds of digital material with the touch of a finger (Isman et al., ٢٠١٢:٢٨٦). Glover and Miller (٢٠٠١:٢٦٠) add that IWBs can be used to support instruction, since they allow meaningful contact among learners and the content by displaying model activities in an approachable manner.

The IWBs assist pupil's creative communication and thinking. Baran (٢٠١٠:٣٦٧), Kershner et al. (٢٠١٠:٣٦٠) and Celik (٢٠١٢:١١٥) agree that by using the IWBs, interactivity can be improved in the classroom as the feature of touch screen permits direct interaction of pupils with teaching activities and tasks. The addition of IWBs in settings of education has revealed that this technology will improve pupils' performance and motivation. According to Harmer (٢٠١٢:١٨٨) and Ur (٢٠١٢:٢١٢), current IWBs allow students and teachers to do everything that is possible with a projector and a computer. Teachers and students can drag things around the screen, highlight phrases using a control which turns the pen or finger into a coloured marker and they can use a curtain effect to hide some of what is on the board. Teachers can tap part of an audioscript so that students hear audio extracts. IWBs can be used to write up new grammar and vocabulary. Grammatical constructions can be shown or demonstrated by having every one look to the front.

٤,٤ Activities Used with IWBs

As a technology the IWB is made up of a computer linked to a projector and a sensitive-touch board that shows the displayed pictures from the computer, allows for changes, and receives input by touch or in an electronic way. The IWBs software allows some activities, containing those that are employed without the usage of the IWB (e.g., projecting presentations and short films, writing, and erasing the board) as well as activities unique to this technology(Slay et al.٢٠٠٨:١٣٣).

Basically, much of the interactivity is built on the notion of being capable to drag movable objects around the screen. IWB has additional specific significant activities put up into the software, too, which include a diversity of virtual pens and highlighting tools valuable for enlarging and concentrating on the page parts, as well as to access easily to a large collection of images, backgrounds and interactive tools Betcher and Lee (٢٠٠٩:٣٣). These might imply like simple activities but they are essential

for building an effective experience of IWB and are not found in most other applications of software, or at least not in the same incorporated method.

Glover et al. (٢٠٠٥:١٥٥) mention some of the IWB interesting activities, for instance:

١. *Dragging and dropping*: an element in the board that can move in many directions.

٢. *Hiding and revealing:* an element located on top of others can be removed,

٣. *Highlighting:* to place a perfect colour on writing top.

٤. *Animation*: elements could be rotated, size changing, and move in a pre-determined direction.

٥. *Storage and recalling*: IWB has infinite loading and quick material recalling.

٦. *Feedback:* there is visual or auditory feedback, when touching a particular item.

٤,٥ The Benefits of IWBs in the Classroom

IWBs technology provides a variety of benefits for education, Schmid (٢٠٠٩:٩٣ as cited in Morgan, ٢٠٠٨:٤٥) declares that there are numerous studies and researches that vividly discuss the benefits of IWBs in educational situations for both teachers and learners.

٤,٦ The Benefits of IWBs for Teachers

A lot of chances are offered for teachers when dealing with IWBs. Walker (٢٠٠٥:٨٦) and Miller and Glover (٢٠١٠:٢٥٣) point out that since IWBs work in combination with other technologies, many resources will be available for teachers in a short time. In addition, WIBs bring diversity into the class and supply teachers with the means to incorporate multimedia resources such as written text, video clips, soundtracks and diagrams into their classes. Therefore, IWBs implementation enable teachers to classify their classes according to the students' needs such as visual, auditory and kinesthetic.

Moreover, IWBs use allows the materials to be used again, and save time by helping teachers keep whatever notes they have written on the board during class time. This helps teachers to speed up the pace of the class by eliminating the need for teachers to write the same information many times on the board (Miller and Glover, ٢٠١٠:٢٥٥).

Make use of IWB based resources, teachers can save time spent in writing and leave more time for teaching and materials generated in the classroom can be saved, printed, and reused later (Walker, ٢٠٠٥:٩٩ and Ur, ٢٠١٢:٢٣٩). Furthermore, teachers have mentioned their clarifications are more inventive, creative, and effective when they use IWBs. With IWBs

integration it becomes easier for teachers to keep the students' attention longer , motivate students and more time can be given for the students, concentrating on individual problems, extra challenging tasks, and communicative activities, because they do not spend a lot of time writing on the board(Smith, ١٩٩٩:٢٠٤ and Kennewell and Beauchamp, ٢٠٠٧:٢٦٧).

Finally, Gerard et al. (١٩٩٩:٢٦٨) see that the physical properties of the IWB are often realized as an advantage. First of all, the IWB size offers a large display area which gives teachers the opportunity for more effective teaching .Second, the physical set up of the board allows teachers to manipulate the documents from the board itself instead of using the computer keyboard or mouse .This helps teachers face the class and interact with the students .Third, the touch sensitive screen of the board enables teachers and students to interact with the board physically in more ways than they can with a simple whiteboard.

Similarly, Ball (٢٠٠٣:٧) and Miller, (٢٠٠٣:٣٤ as cited in Thomas and Schmidt, ٢٠١٠:٢٦) find that the interactive software available for use on IWBs helps teachers to demonstrate abstract ideas and concepts in new ways so that the students can respond to the activities and deepen their understanding.

٤,٧ The Benefits of IWBs for Students

As mentioned previously that the learning process accompanied by IWBs generally has a positive impact on students' education. It is found that students' motivation has been increased because the integration of the technology into the classes creates more diversity in the class activities (Walker, ٢٠٠٥:٩٥). This results in improving students' engagement and participation (Miller and Glover, ٢٠١٠:٢٥٥). Using IWBs in the class encourages students to share their experience and their roles in the class have been said to shift from those of "observer" to full participant (Bettsworth, ٢٠١٠: ١١٤). BECTA (٢٠٠٣: online) explains that the employment of IWBs rises motivation because "students enjoy interacting physically with the board, manipulating text and images; thereby providing more opportunities for interaction and discussion".

Comparable to the increase in motivation, Beeland(٢٠٠٢:online) maintains that student engagement increases as well. Beeland's investigation intended to discover students' and teachers' perceptions about IWB use. He concluded that the integration of technology in education enhance teaching and learning process because the physical interactivity with the board increases students' motivation to manipulate the visuals and texts on the board. Besides the impact of IWBs on students' motivation,

participation and engagement, Soares (٢٠١٠:٢٣٨) adds that the IWB has a potential to increase student autonomy in the classroom. The purposeful use of the board and the effective arrangement of an activity introduced to the student, then the lesson with IWB becomes learner centered.

After all, in Ishtaiwa and Shana's (٢٠١١:١) research to investigate the efficiency of IWBs in improving understanding of grammar points in modern language classes, she discovered out that there was a big difference between students' understanding of the grammar points after they were taught by the IWB. Thus, the utilization of the board encouraged students to interact and collaborate with each other in the class.

٤,٨ The Drawbacks of IWBs in the Classroom

Even though the use of IWB technology is increasing rapidly, like other new technological tools, the researchers have criticize it for some technical difficulties. For Walker (٢٠٠٥:٨٨), IWB technology, may has technical glitches that can result from problems with the computer, the network connection, the projector or even a problem with the board itself. Wall et al. (٢٠٠٥:٨٦١) claim that such technical problems can trigger learner frustration.

Walker (٢٠٠٥:٨٩) and Schmid (٢٠٠٩:٤٩٨ as cited in Morgan, ٢٠٠٨:١٢٤) point out other potential disadvantages of the board. Primarily, the preparation of the resources to be used on the IWB can take a long time, especially when teachers lack basic training on computer skills or how to use the particular tools relevant to IWBs which may leads to inefficient use of IWBs. Moreover, they are expensive to obtain when compared with other presentation technologies such as overhead and slide projectors (Higgins et al., ٢٠٠٧:٢٢٠). Consequently, government support is often required to integrate IWBs into schools.

٥- Procedures

٥,١ The Experimental Design

Best and Kahn (٢٠٠٦:١٧٧) consider the experimental design as the blueprint of the processes through which the researcher is able to test the hypotheses he/she poses and show the relationships between independent and dependent variables. For Ary et al. (٢٠١٠:٢٧١), experimental design refers to the conceptual framework within which the experiment is conducted and it sets up the conditions required for demonstrating cause and effect relationships.

Moreover, "a particular design is selected according to the aim of the experiment, the type of variable to be manipulated, and the conditions under which it is conducted" (Best, ١٩٨١:٦٨). This study follows the

nonequivalent pretest-posttest control group design in which the experimental and control groups are intact classes, and a pretest is administered before the application of the experiment and a posttest at the end of the treatment period. In this study, the experimental group (EG) is the one which receives the independent variable IWB which is used in teaching grammar, whereas the control group (CG) is the one which is taught according to the method prescribed in the Teachers' Guide (see Table ٣،١).

Table (٣،١)
The Experimental Design

Group	Test	Treatment	Test
Experimental(EG)	Pretest	IWB	Posttest
Control(CG)	Pretest	Prescribed Method	Posttest

٦- Results

In response to the aim of the present study which is investigating "the impact of using interactive whiteboard on developing the grammatical competence of the Iraqi EFL learners ", it is hypothesized that there is no statistically significant difference between the mean scores of the students who are taught grammatical structures using the Interactive Whiteboard and that of the students who are taught these structures using the method recommended by the teacher's book. In verifying the above hypothesis, the mean scores as well as standard deviations are calculated for the two groups. The scores of the subjects on the achievement test reveal that the mean score of the EG is ٤٤،٦٩ with a standard deviation of ٤،٨٧٦ while that of the CG is ٣٣،٥٤ with a standard deviation of ٧،٣١١. The difference between the two means is statistically significant because the computed value is ٨،١٩٥ while the tabulated t-value is ١،٦٧١ at ٠،٠٥ level of significance and a df of ٨١. This indicates that there are significant differences between the two groups in the achievement test in favour of the EG. Table ٤،١ below shows the detailed descriptions of the results of both groups see also Appendix (J).

This result indicates that the null hypothesis is rejected and the alternative hypothesis should read: there is a statistically significant difference between the achievement of the EG and that of the CG. Table ٤،١

The t-test Statistics for the Posttest Achievement of the EG and CG Students

Group	No.	Mean	SD	t-Value		DF	Level of Significance
				computed	tabulated		
EG	٤٢	٤٤،٦٩	٤،٨٧٦	٨،١٩٥	١،٩٩٠	٨١	٠،٠٥
CG	٤١	٣٣،٤٥	٧،٣١١				

٦,١ Interpretation of the Results

The findings of this study indicate that EG students' grammatical knowledge has improved and their engagement and enthusiasm in the learning process increased when studying with the IWB. IWBs take learning to a whole new dimension, away from teacher-centered lectures to teacher facilitated explorations, utilizing sound, touch and sight. In effect, IWBs can move students from being passive thinkers to active well-rounded critical thinkers. This helped in facilitating the process of learning grammatical structures and enthused them to be more independent and more cooperative with each other. It is noticed that the EG students prefer using IWB to learn grammatical rules. They believe that this teaching tool helps them to understand the grammatical points more effectively. They also prefer to participate and practice the grammar points introduced on the IWB to understand the rules and improve their grammatical knowledge. Moreover, they agreed about the importance of the grammar points and how they give them confidence to speak and write correctly.

The results of the present study are in agreement with that of the previous studies such as Abu Naba'h (٢٠١٢), Mohammed (٢٠١٣), Mahmoodi et al. (٢٠١٤) and Saeedi (٢٠١٦). All these showed the superiority of non-traditional methods over the traditional ones and revealed the significance of using modern techniques and aids in teaching and learning a foreign language. This gives enforcement for the present study.

٧- Conclusions

In the light of the result obtained, the following conclusions can be drawn:

١. IWB as a teaching aid improves EFL learners' mastery of grammatical structures and enriches their grammatical knowledge.
٢. Using IWB in teaching and learning grammar is more effective than other ordinary teaching aids used in the schools. The learning process has become a fun rather than a monotonous activity the students are forced to do.
٣. The grammatical knowledge of Iraqi secondary school students is rather inadequate, as shown in their achievement in the pre-test.
٤. The selected teaching tool gives the students more opportunities to participate in the classroom and be creative thinkers.
٥. Another point is the development of students' skills to use technology and adapt themselves to the rapid progress in information technology.

٦. IWB motivates students to be more active and learn with more enthusiasm.

٧. IWB attracts the students' attention by employing different colours, sounds, types of texts and animation effects.

٨. IWB supports many different learning styles and suites various learning environments.

٩. In terms of interaction, it is noted that communication among learners has been significantly enhanced. IWB provides the students with opportunities to interact with the teacher and cooperate with each other in the class and revise the previous materials.

١٠. IWB lessens the heavy duty on the teacher and gives the students a chance to practice using the IWB themselves.

References

Al-Kaisy, Z. Abdulkader(٢٠٠٥)"The Difficulties of Using Synonymous Verbs by EFL Learners". Unpublished M.A Thesis, University of Baghdad, College of Education for Women.

Ary,D., Jacobs,L. and Sorensen,C. (٢٠١٠) **Introduction to Research in Education.** Wadsworth: Cengage Learning.

Baran, B. (٢٠١٠) "Experiences from the Process of Designing Lessons with Interactive Whiteboard: ASSURE as a Road Map". **Contemporary Educational Technology,** ١(٤), pp.٣٦٧-٣٨٠.

BECTA (٢٠٠٣) **What the Research Says about Interactive Whiteboards.** Coventry: British Communications and Technology Agency.

Beeland, W. D. (٢٠٠٢). "Student Engagement, Visual Learning and Technology: Can Interactive Whiteboards Help?" **Action Research Exchange,** ١, (١), pp.(١-٧). Retrieved on ١٥,٦,٢٠١٦, from http:/ /chiron .valdosta. edu/are/ Artmanscrpt /vol١no١ /beeland_ am. pdf.

Best, J. W. and Kahn, J. V. (٢٠٠٦) **Research in Education** (١٠th ed.). Boston: Pearson Education Inc.

Betcher, C. and Lee, M. (٢٠٠٩) **The Interactive Whiteboard Revolution: Teaching with IWBs.** Camberwell: ACER Press.

Bettsworth, B. (٢٠١٠). "Using Interactive Whiteboards to Teach Grammar in the MFL Classroom: A learner's Perspective'. In M. Thomas and E. C. Schmid (Eds.), **Interactive Whiteboards for Education: Theory, Research and Practice,** pp. (٢٣٨-٢٥٠). The United States: IGI Global.

Brown, H.D. (٢٠٠٧) **Principles of Language Teaching and Learning**(٥th ed.). Longman: Pearson Education, Inc.

Campregher,S.(٢٠١٠) "Effects of the Interactive Whiteboard (IWB)in the Classroom" **Experimental Research in Primary School**. Free University of Bolzano, Italy. Retrieved on ١٥,١١,٢٠١٦ from sabrina.campregher@gmail.com.

Celik, S. (٢٠١٢). "Competency Levels of Teachers in Using Interactive Whiteboards". **Contemporary Educational Technology**, ٣(٢), pp.(١١٥-١٢٩).

Chomsky, N. (١٩٦٥). **Aspects of the Theory of Syntax**. Cambridge, MA: MIT Press.

Craig,E. (١٩٩٨) **Noam Chomsky: Encyclopedia of Philosophy**. London: Routledge.

Crystal, D.(٢٠٠٨) **A Dictionary of Linguistics and Phonetics** (٦thed.).Malden: Blackwell Publishing Ltd.

Diaz-Rico, L. T. and Weed, K. Z. (٢٠١٠). **The Cross cultural, Language, and Academic Development Handbook:** A Complete K-١٢ Reference Guide (٤th ed.).Boston: Allyn and Bacon.

Doughty, C. (٢٠٠١). "Cognitive Underpinning of Focus on Form**"**. In P. Robinson (ed.), **Cognition and Second Language Instruction**. Cambridge: Cambridge University Press, pp. (٢٠٦-٢٥٧).

Ellis, R. (٢٠٠٢). "Grammar Teaching—Practice or Consciousness-raising?" In J. C. Richards, and W. A. Renandya (eds.), **Methodology in language teaching: An Anthology of Current Practice** .Cambridge: Cambridge University Press, pp.١٦٧-١٧٤.

Fontain, L. (٢٠١٣). **Analyzing English Grammar: A Systematic Functional Introduction**. Cambridge: Cambridge University Press.

Gashan, A. K. and Alshumaimeri, Y.A. (٢٠١٥) "Teachers' Attitudes Toward Using Interactive Whiteboards in English Language Classrooms". **International Education Studies**; Vol.٨ (١٢), pp. (١٩١٣-٩٠٢٠).

Gerard, F., Greene, M., and Widener, J. (١٩٩٩) **Using SMART Board in Foreign Language Classes.** Paper Presented at Society for Information Technology & Teacher Education International Conference, San Antonio, TX.

Ghayadh, G. Yousif (٢٠٠٧) "Investigating Iraqi EFL Learners' Performance in English Transitive Verb Complementation Patterns". Unpublished M.A Thesis, College of Arts, University of Baghdad.

Glover, D. and Miller, D. (٢٠٠١). "Running with Technology: The Pedagogic Impact of the Large Scale Introduction of Interactive Whiteboards in One Secondary School". **Technology, Pedagogy and Education.**Vol.١٠ (٣), pp. (٢٥٧-٢٧٨).Retrieved on ١٨,١١,٢٠١٦, from http:/ /www. keele.ac.uk/ depts/ed/iaw /Missioners .pdf.

Glover, D., Miller, D., Averis, D. and Door, V. (٢٠٠٥). "The Interactive Whiteboard: A Literature Survey"**. Technology, Pedagogy and Education,** ١٤(٢), pp. (١٥٥-١٧٠).

Greenbaum, S. (١٩٩٦) **The Oxford English Grammar**. Oxford: Oxford University Press.

Greenbaum, S. and Nelson, G. (٢٠٠٢) **An Introduction to English Grammar** (٢nd ed.). London: Pearson Education Limited.

Harmer, J. (٢٠١٢) **Essential Teacher Knowledge: Core Concepts in English Language Teaching.** Edinburgh: Pearson Education Limited.

Higgins, S., Beauchamp, G., and Miller, D. (٢٠٠٧). "Reviewing the Literature on Interactive Whiteboards**". Learning, Media and Technology**, ٣٢(٣), pp. (٢١٣-٢٢٥).

Ishtaiwa, F.F. and Shana, Z. (٢٠١١). "The Use of Interactive Whiteboard (IWB) by Pre-service Teachers to Enhance Arabic Language Teaching and Learning**"**. **Learning and Teaching in Higher Education: Gulf Perspectives**, ٨(٢), pp.(١-١٨) . http://lthe.zu.ac.ae.

Isman, A., Abanmy, F. A., Hussein, H. B., and Al Saadany, M. A. (٢٠١٢). "Saudi Secondary School Teachers Attitudes' Towards Using Interactive Whiteboard

in Classrooms**"**. **Turkish Online Journal of Educational Technology-TOJET,** ١١(٣), pp.(٢٨٦-٢٩٦).

ITILT, (٢٠١١) **Interactive Technologies in Language Teaching**: Training Manual. Retrieved from www.itilt.eu on ١٤,٣,٢٠١٦.

Kennwell, S. and Beauchamp, G. (٢٠٠٧). "The Features of Interactive Whiteboards and their Influence on Learning**"**. **Learning, Media and Technology,** ٣٢(٣), pp. (٢٢٧-٢٤١).

Kent, P. (٢٠٠٨) **Interactive Whiteboards: A Practical Guide for Primary Teachers.** Melbourne: Macmillan Masterclass.

Kershner, R., Mercer, N., Warwick, P., and Kleine, J. S. (٢٠١٠). "Can the Interactive Whiteboard Support Young Children's Collaborative Communication and Thinking in Classroom Science Activities?**"** **International Journal of Computer-Supported Collaborative Learning,** ٥(٤), pp.(٣٥٩-٣٨٣).

Kohli, A.L. (١٩٩٩) **Techniques of Teaching English for B. Ed. Students** (١٥th ed.). New Delhi: Dhanpat Rai Publishing Company (P) Ltd.

Larsen-Freeman, D. (٢٠٠١). "Teaching Grammar**"**. In M. Celce-Murcia (ed.), **Teaching English as a Second or Foreign Language** (٣rd ed.). MA: Heinle & Heinle, pp.(٢٥١-٢٨٥).

Lin, L. (٢٠٠٨). "The role of Grammar Teaching in Writing in Second Language Acquisition"**. Information Analysis**. Retrieved on ٩. ٧. ٢٠١٦, from: http://www.eric.ed.gov/ ٨٣.

Lock, G. (٢٠٠٢) **Functional English Grammar: An Introduction for Second Language Teachers**, Cambridge: Cambridge University Press.

Miller, D. and Glover, D. (٢٠١٠). "Presentation or Mediation: Is there a Need for "Interactive Whiteboard Technology-Proficient" Teachers in Secondary Mathematics?**"** **Technology, Pedagogy & Education,** ١٩(٢), pp.(٢٥٣-٢٥٩)

Morgan, G. L. (٢٠٠٨). **Improving Student Engagement: Use of the Interactive Whiteboard as an Instructional Tool to Improve Engagement and Behavior in the Junior High School.** Lynchburg, VA: Liberty University.

Nassaji, H. and Fotos, S. (٢٠١١) **Teaching Grammar in Second Language Classrooms: Integrating Form-Focused Instruction in Communicative Context.** New York: Routledge Taylor & Francis Group.

Northcote, M., Mildenhall, P., Marshall, L., and Swan, P. (٢٠١٠) "Interactive Whiteboards: Interactive or Just Whiteboards?" In Thomas, M. & Jones, A. (eds) **Interactive Whiteboards: An Australasian Perspective,** ٨٢. Retrieved on ٢٢,١٢,٢٠١٦ from www. ascilite. org.au/ ajet/ajet٢٦/ northcote. html.

Palmer, F. R. (١٩٧١): ***Grammar***, Penguin, Harmondsworth.

Purpura, J. F. (٢٠٠٤) **Assessing Grammar**. Cambridge: Cambridge University Press.

Richards, J. and Renandya, W. (٢٠٠٢) **Methodology in Language Teaching: An Anthology of Current Practice.** Cambridge: Cambridge University Press.

Richards, J. and Schmidt, R. (٢٠١٠) **Dictionary of Language and Applied Linguistics**. London: Pearson Education Ltd.

Safriyani, R.(٢٠٠٩) **Implementing the Communicative Approach to the Second Language Teaching.** Kencanasari Timur xx / ١٩ Surabaya.

+٦٢٨٥٧٣٠١٢٢٨٧٤ / ٠٣١٧٧٤٧٤٨١٨. SMA YPPI-II Surabaya. rizkasafriyani@yahoo.com

Scrivener, J.(٢٠١١) **Learning Teaching. The Essential Guide to English Language Teaching**, (٣rded.) Oxford: Macmillan Publishers Limited.

Slay, H., Sieborger, I., and Hodgkinson-Williams, C. (٢٠٠٨). "Interactive Whiteboards: Real Beauty or Just Lipstick**?" Computers & Education,** ٥١(٣), pp. (١٣٢١-١٣٤١).

Smart Board Technologies (٢٠١١) "Smart-Board Technology Integration in Teaching". **Association for Information Systems (AIS) e-Library (AISeL).** (AMCIS) ٢٠١١ Proceedings-All Submissions. Paper ١٨.

Smith, F., Hardman, F., and Higgins, S. (٢٠٠٥). "The Impact of Interactive Whiteboards on Teacher-Pupil Interaction in the National Literacy and Numeracy Strategies**". British Educational Research Journal,** ٣٢(٢), pp.(٤٤٣-٤٥٧).

Soares, A. D. (٢٠١٠**). "**IWBs as Support for Technology-Related Projects in EFL Education in Brazil**"**. In M. Thomas & E. C. Schmid (eds.), **Interactive Whiteboards for Education: Theory, Research and Practice**, pp.(٢٣٨-٢٥٠).

Thomas, M. and Schmidt, E. (٢٠١٠) **Interactive Whiteboards for Education: Theory, Research and Practice.** New York, Information Science Reference.

Thornbury, S. (١٩٩٩). **How to Teach Grammar**. Harlow: Pearson Education.

Ur, P. (١٩٩٩) **Grammar Practice Activities: Apractical Guide for Teachers.** (١٢th ed). Cambridge: Cambridge University Press.

Ur, P. (٢٠١٢) **A Course in Language Teaching.** Cambridge: Cambridge University Press.

Walker, R. J. (٢٠٠٥). "Teaching and Learning with Interactive Whiteboards"**.** In M. Leask and N. Pachler (eds.), **Learning to Teach Using ICT in the Secondary School,** pp.(٨٦-١٠٠)London: Routledge.

Wall, K., Higgins, S., and Smith, H. (٢٠٠٥). "The Visual Helps me Understand the Complicated Things: Pupil Views of Teaching and Learning with Interactive Whiteboards**". British Journal of Educational Technology,** ٣٦(٥), pp.(٨٥١-٨٦٧).

اثر استخدام السبورة التفاعلية في تطوير الكفاءة النحوية للمتعلمين العراقيين دارسي اللغة الانكليزية لغة اجنبية

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الملخص

تعتبر قواعد اللغة الانكليزية واحدة من الاهداف الرئيسية في تعليم طلاب اللغة الانكليزية لغة اجنبية ووسيلة لتطوير تعلم اللغة الاجنبية فهي تزيد من ادراك الطلاب للأفكار الرئيسية في النص و اكتشاف تراكيب النص وهي ضرورية لاستخدام اللغة بشكل جيد.

لقد اظهرت البحوث وجود انواع مختلفة من ستراتيجيات التدريس لتحسين القدرة على تعلم قواعد النحو و قد استخدمت السبورة التفاعلية في الدراسة الحالية كوسيلة تعليمية مساعدة يمكن استخدامها لتسهيل التعلم التواصلي والهادف. و لذلك فان الدراسة الحالية تهدف الى استقصاء اثر استخدام السبورة التفاعلية في تدريس النحو في تطوير الكفاءة النحوية للمتعلمين العراقيين دارسي اللغة الانكليزية لغة اجنبية.

تنص الفرضية الصفرية على انه لا يوجد فرق ذو دلالة احصائية بين متوسط درجات الطلاب الذين يدرسون التراكيب النحوية باستخدام السبورة التفاعلية و متوسط درجات الطلبة الذين يدرسون هذه التراكيب باستخدام الطريقة الموصى بها في دليل المعلم

يتكون مجتمع البحث في الدراسة الحالية من طالبات الصف الخامس الاعدادي /الفرع العلمي في المدارس الاعدادية والثانوية في بغداد/ مديرية تربية الكرخ الاولى للعام الدراسي ٢٠١٦-٢٠١٧ . تتالف عينة الدراسة من ٨٣ طالبة موزعات الى مجموعتين المجموعة التجريبية تتكون من ٤٢ طالبة بينما المجموعة الضابطة تتكون من ٤١ طالبة و قد تم اختيار المجموعتين بشكل عشوائي من اعدادية بغداد للبنات في محافظة بغداد. كوفئ افراد المجموعتين في عدة متغيرات كالتحصيل الدراسي لأباء و امهات الطالبات، و تحصيلهن في مادة اللغة الانكليزية في امتحان نصف السنة، و اعمارهن بالأشهر و كذلك درجاتهن في الاختبار القبلي اضافة الى تحييد عدة عوامل خارجية اخرى.

لتحقيق الهدف من الدراسة تم تطبيق التجربة حيث تم تدريس المجموعتين التجريبية و الضابطة نفس المادة الدراسية و التي تحددت بالفصل (الخامس, السادس, السابع) من المنهج المقرر عدا استخدام السبورة التفاعلية التي تم تطبيقها مع المجموعة التجريبية فقط. وقد قامت الباحثة بنفسها بتدريس المجموعتين. اعدت الباحثة نموذجين من الاختبار التحصيلي القبلي والبعدي وعرضتها على مجموعة من الخبراء للتحقق من مدى صدقها. اما الثبات فقد تحقق باستخدام كرونباخ الفا و تبين انه يساوي ٠,٨٩٦ و الذي يشير الى ان الاختبارثابت. بعد ذلك تم تحليل فقرات الاختبار لتحديد فعالية كل فقرة من حيث درجة صعوبتها و قوة تمييزها.طبق الاختبار القبلي على عينة الدراسة قبل البدء بالتجربة ومن ثم طبق الاختبار البعدي بعد الانتهاء من التجربة. و تم تحليل بيانات الاختبار البعدي باستخدام الاختبار التائي لعينتين مستقلتين لمعرفة الفروق الاحصائية الدالة بين المجموعتين و تبين وجود فروق دالة احصائية بين متوسطي درجات المجموعتين لصالح المجموعة التجريبية. و كذلك تبين انه توجد فروق ذات دلالة احصائية بين الاختبارين القبلي و البعدي لصالح الاختبار البعدي.

كخلاصة يمكن الاستنتاج بان استخدام السبورة التفاعلية كوسيلة تعليمية له تأثير ايجابي في تطوير الكفاءة النحوية للطلاب. في ضوء نتائج الدراسة فقد وضعت عدد من التوصيات والمقترحات لدراسات أخرى.