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Spellchecker as an Important Technology: Word Processor to Help Iraqi Undergraduate Students in their Writing Misspelling

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ABSTRACT

The current study aims at finding out the importance of technology to help Iraqi undergraduate students in their writing misspelling as well as investigate the effect of using spellchecker to overcome the problems of misspelling in writing. In order to verify the hypotheses of the current study and to achieve its intended aims, the researcher adopts two instruments, i.e., the test and the questionnaire, the researcher adopts(52)students, the experimental design and uses a sample of (26) students from the first grade at English Department/College of Education for Women/Tikrit University during the academic year(2018-2019).The sample is divided into a control group with (26) students and the experimental group with(26)students. The two groups are equalized according to certain variables. The students in the experimental group are taught by using computer technology, whereas, those in the control group are taught by using traditional approach. The researcher used a computer technology post-test which is conducts on the sample at the end of the experimental which is(8) weeks. The obtained results have shown that there are significant differences in spellchecker technology between the experimental and control groups, in favor of the experimental group. Also, The questionnaire includes ten items and distributes to the undergraduate students.

المدقق الاملائي كتكنولوجيا مهمة: معالج النصوص لمساعدة الطلبة الجامعيين العراقيين في كتاباتهم الخاطئة

م .م. الاء علي حسن/ وزارة التربية/المديرية العامة لتربية صلاح الدين

الخلاصة:

تهدف الدراسة الحالية الى معرفة اهمية التكنولوجيا في مساعدة الطلبة الجامعيين العراقيين في اخطائهم الاملائية في الكتابة ،وكذلك التحقيق في أثر استخدام مصحح الاملائي للتغلب على مشاكل الاخطاء الاملائية في الكتابة. لغرض اختبار فرضيات الدراسة الحالية وتحقيق اهدافها تم استعمال اداتين الاختبار و الاستبيان . يتبنى الباحث (٥٢) طالبا، التصميم التجريبي استخدم عينة مكون من(٢٦) طالب في المرحلة الاولى في قسم اللغة الانكليزية في كلية التربية بنات في جامعة تكريت خلال السنة

الدراسية(٢٠١٨-٢٠١٩). تنقسم العينة الى مجموعة ضابطة مكونة من(٢٦)طالبا ومجموعة تجريبية مكونة من(٢٦)طالبا. وتم مكافأة المجموعتين وفقا لبعض المتغيرات باستخدام تكنولوجيا الحاسوب ،حيث تم تدريسها للطلاب الموجودين في المجموعة الضابطة بالطريقة التقليدية. استخدمت الدراسة اختبار بعدي بطريقة تكنولوجيا الحاسوب تم اجراءها على العينة في نهاية التجربة وهي(٨)اسابيع. وقد اظهرت النتائج التي تم الحصول عليها وجود فروق ذات دلالة احصائية في تكنولوجيا المصحح الاملائي بين المجموعة الضابطة، لصالح المجموعة التجريبية. وايضا استبانة مكون من عشر فقرات ووزعت على طلبة الجامعيين.

Section One: Introduction

1.1 Statement of the Problem

Spellchecker as a technology is one of the oldest applications in the field of language technology beginning from the 20th century used by human beings to communicate one with each other with feelings, ideas and knowledge. The aim of this study was to find out the benefit of using spellchecker as an important and new technology at school and college levels in order to sophisticate their knowledge of spellchecking, as well as to overcome the problems of misspelling in writing (Harris and Turking-ton,2006:218-219).

One of the most important problem of spellchecker faced by students is misspelling in their writing. However, the word there is misspelled, it should be their. The English language is full of these word pairs e.g., to/too ,wear/where…etc. which is called homophones, there are two kinds of spelling errors or misspelling of students writing like, non-word and real word errors. Also, most computer use an American dictionary for checking the words in the writing. This means that it will stop on words that have spelled in British and suggest that they are incorrect e.g., behavior/behavior, color/colour…etc., also the problem of spellchecked can not fixed detect words that are spelled correctly but used incorrectly. For example, incorrect used of their versus there (Banks,1989:42)

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1.2 Aims of the Study

The current study aims at the following:

1.Finding out the importance of technology in helping Iraqi undergraduate students in their writing misspelling.

2.Finding out the impact of spellchecker in enhancing writing misspelling.

3.Investigating the effect of using spellchecker to overcome the problems of misspelling in the writing.

4.Investigating the influence of students and task variables on misspelling production and correction.

1.3 Hypotheses of the Study

The following hypotheses have been formulated in order to be verified:

1.There are no statistically significant differences between the mean score of students' performance of the experimental group in the pre and post- tests.

2. There are no statistically significant differences between the mean score of students' performance of the control group in the pre and post- tests.

3. There are no statistically significant differences between the mean score of students' performance of the experimental group and that of the control group in the post-test.

1.4 Limits of the Study

This study is limited to the following points:

1. The use of the spellchecker to overcome the problem of misspelling in the writing.

2.The sample of the current study is limited to the first grade students at English Department /College of Education for Women during the academic year2018-2019.

1.5 Value of the Study

The value of the current study stems from the following points:

1.One of the main useful points of using a spellchecker is the accuracy.

2. It sophisticates student's performance in writing and faster correct their errors.

3.Students are typically ability to write more text than the typewriter or the hand.

4.The use of spellchecker can also saving time by correcting all instances of a misspelling word at once.

1.6 Procedures of the Study

To achieve the aims of the study, the following procedures are applied:

1.Selecting a sample of Iraqi EFL university students.

2.Constructing a test. .

3.Constructing an open questionnaire.

4.Applying a questionnaire and test to the sample, and

5.Presenting conclusions, recommendations as well as suggestions for further studies.

1.7 Definition of the Basic Terms

1.7.1 Spellchecker: A process of a specific program on a computer which determines to check the spelling of each word in an electronic document or text have the correct misspelled letters in the correct order(Kuc,2015:316).

1.7.2 Technology: it refers to the branch of methods of organization, devices, systems and scientific knowledge that deal with the use of technical means and their interrelation with environment life and society and put into practical use for solving problems(Cox,2006:63).

1.7.3 Word processor: It can be defined as the application or device or machine for storing that students or people used for creating, editing, retrieving and printing the text or document(Knapp,1986:77).

1.7.4 Writing: It is the process of using symbols, i.e.. alphabetical letters to communicate thoughts and ideas in a readable form(Daniels and William,1996:3).

1.7.5 Misspelling: It refers to write words with an incorrect arrangement of letters or incorrect letters. Shortly, spelling word wrongly(Tooli.2000:175).

Section Two: Theoretical Background and Previous Studies

2.1 The Concept of Spellchecker

Detecting the word mistakes can apply by utilize the computer assist application. The application utilized for treating word mistakes and discover spelling checker. A spellchecker is a computer program which people or students can operate to check the spelling of words in texts or documents. In

other words, a spellchecker(spell check) is an application that flags words in a document or text that may spell incorrectly or wrong(Davis, 2011:57-58).

The spellchecker purpose is to hit spelling mistakes from the texts or documents. Errors in the documents or texts will give coloring-coded underlines reflecting the choices. For example,

1. green color for grammar mistakes, 2.blue color for contextual spelling mistakes, and 3.red color for spelling mistakes.

In fact,. if students or people misspelled the word the spelling will propose a set of alternatives. If students or people utilize a spellchecker efficaciously, they have to be good at reading and spelling There are many limitations of spellcheckers students have to be aware such as:

1. A spellchecker(spell check) will be saving time, particularly if students or people are writing a lot, but they should accept its limitations in mind.

2.Students or people may correctly spell the words but utilize the incorrect one.

3. The spellchecker(spell check) does not distinguish some satisfactory words (ibid).

In all cases, the spellchecker(spell check) can affirm all of the words are in the software dictionary, the author has practice them in the correct context or place spellchecker(spell check) will not spotlighting where student may utilize the incorrect one. Students would have to read their writing to observe that mistake. For example, their mistakes when using **to** and **too** or **there** and **their**.

Spellchecker will not help with consistence but student can speedily use different phrases with continuous correct, spelling of the same words within a individual article or document. For instance, student or writer could involve both **authorize** and **authorize** in the similar document or text without necessarily attracting a spell check(spellchecker) error (Cohen,2014:327).

2.2. Basic Process of Spellchecker

Spell check or spellchecker is a standard including of any program or any word processor(computer)which requires students or people to input blocks of text or document like the content management parts of web any applications. In general, a basic spellcheck carries out the following:

A. Word processor discovers blocks of text file or document and choices the extract the individual words contain in it,

B. Mark the words with wrong spelling and propose the proper spelling to the students or people,

C. Besides, it compares each extracted word to known list of aright spelled words. e.g., dictionary. This spell check may contain extra data like lexical and grammatical rules, word division points or punctuation.. etc.., and finally

D. The spellcheck will require to consider different forms of the similar word. For example, possessive, verbal forms , apprehensive and contractions(Inc,2008:156).

2.3 Causes of Misspelling English Words

The first step for the spelling checker is for detecting the misspelled word. Misspelled words or errors contains many kinds of mistakes as the following:

1.**Cognitive Mistakes**: This sort or kind may effect the behavior and emotional caused by students or people who do not know how to spell the word, example about cognitive errors **realize** misspelled as **realise.**

2.**Homophones Mistakes**: This sort means two or more words are spell differently with different meanings, e.g., right, rite, write and wright.

3.**Typographical or typing Mistakes**: This sort of errors is occur in the process of typing. This type is also known as a misprint process. This sort involves errors due to mechanical failure of the hand .According to this type students or people are delete , inset also adding extra letters or spaces between words and replacement which create the word, e.g., **there** misspelled as **their** or because the student or person substitute the incorrect spelling of a homophone or near-homophone, e.g., **dessert** misspelled as **desert**.

Briefly, if students or people want to overtake the problem of misspell word, they can utilize dictionaries for finding misspell word. Misspelling errors of some students or people are not perfect like:

A. letters are singled. e.g., **between**,

B. letters are double or more e.g., **betwween** and **between** (Hogan,2012:59-60).

2.4 Reasons may not detect or correct by a spellchecker

According to Brown(2018:335) there are reasons why a wrong spelling may not be detected and correct by a spellchecker:

1.The text may mark do not determine grammar or spelling in the word-processing plan.

2.The language prepare for proofing may not be the one the writer wants, for instance, choosing American English will only allow **realize**, whereas, British English as the proofing language will allow both **realize** and **realise**.

3.A word may typewrite in the capital letters, and the program is determine to ignore such words.

4. The word may give a number in it, may be as the effect of a misprint and the program is frame-up to neglect such words.

5.The spellchecker may neglect the word because what was typed, represents a dissimilar, right spelled word , usual problematic English pairs, e.g., **form** and **from**.It is also a common problem.

6. The letters can misplace or put in the wrong place, but so can spaces. Spell-checker may not discover misplaced space. For example, **firs tone**(first one) **thing shave**(things have).

7.If the no proofing settings is give a specific trend in the program, any text write in the similar trend in the document or text will also skip.

2.5 Types of Spelling Mistakes

There are two main types or techniques of spelling errors, can be categorized into:

1. Non-word mistake: According to this sort or technique of spelling errors students or people write the words do not give any real meaning in the language. For example, the **bok** , the word **bok** does not exist in English, and it probably derives from a type of the noun book.

2. Real- word mistake: According to this sort or technique of errors students or people write the correct word has a meaning in the dictionary but not intended word in the sentence. Thus, creating a dissimilar meaning or grammatically error sentence. For example, I saw **tree** trees in the garden , the noun **tree** exists in English, but in this context it is most likely a typo of the numeral **three** I saw **three** trees in the garden (Treiman, 2013:363).

2.6 Advantages and Disadvantages of Spellchecker

According to Rose(2012:304-305)the main advantages on answering on a computer spellchecker are:

1.Save time,

2.Easy recognition,

3.It puts lines under the errors in the clauses interrelate to grammatical error.

4.Correct accuracy.

5.It distinguishes most of the typing mistakes and spelling.

6.It recognizes where a gap between two consecutive words may omit during by suggesting that the word is the spelling error, and

7.It notifies student or people about right placement of punctuation.

Although, these advantages of spellchecker it mentions above but there are many disadvantages of use the spellchecker such as:

1.It can not recognize between homonyms. i.e., to-too-two, their-there. So, it can not recognize wrong spelling of homonyms.

2.It takes too long for working the correction.

3.It is spotlighting each that are not in its dictionary.

4.It may have too little words in it's dictionary.

5.If the students or people write word contains many mistakes so it may not offer any substitutes spelling.

6.If the mistake is at the beginning of the word , it may not offer any substitute spelling (Palmer,2003:163).

2.2 Previous Studies

2.2.1 Anne,Rimrott and Trude,Heift(2008)

This study aims at investigate the performance of a spellchecker designed for native writers on misspellings made by(L2) learners.

The aim was achieved through using the following procedures:

1.Selecting 48 students from male and female students.

2.Constructing an open-ended questionnaire and,

3.Drawing results of the questionnaire through using statistical means.

Results of this study indicated the following:

-It found that the ratio of single-edit to multiple-edit misspellings in a given misspelling corpus is a strong predictor of spell checking success in that, single-edit misspellings are corrected successfully while multiple-edit ones are not corrected by a spellchecker designed for native learners.

2.2.2 Hazelynn anak Rimbar(2017)

The aim of this study is to investigate if the error correction provided by spell-checker tool in word processors are internalized by students.

This aim is achieved through using the following procedures:

1.Selecting a sample from 30 male and female students.

2.Constructing a quasi-experimental design on two groups: experimental and control groups.

3.Constructiong a pre-post tests.

4.Drawing results by using statistical package for social science(SPSS) and the Cronbach's Alpha for obtaining the data.

Results of this study indicated the following:

1.The spell-checker helped the learners revise their spelling on one dictation exercise, learners still made the same errors in their spelling after the use of spell-checkers. Therefore, it argues that while spell-checkers help eliminate surface errors, they have very little influence on correcting the errors on the cognitive level.

2.The spell-checker was not invented to help language learners learn and improve their spelling, it can be used to serve that purpose with proper guidance by the language instructors.

Section Three: Methodology

Instruments of the Study

The current study includes two instruments, i.e. the achievement test and the questionnaire, as follows:

3.1 The Experimental Design

Selecting an appropriate design for a research work is one of the most important decisions that a research should make. Experimental design is "the blueprint of the procedures that enable the researcher to test hypotheses by reaching valid conclusions about the relationship between independent and dependent variables."(Best and Khan, 2006:77). The term design refers to the outline method conceived in an attempt to again a respond to the questions of the research. In the present research, the experimental group of students is taught by using computer technology and the control group is taught by conventional approach. This study has built on the pretest-posttest equivalent groups design.

3.2 Population and Sampling

Population refers to the subjects or examiners of a specific study or everyone who is the subject of a statistical observation(Reddy, 2004:28). In short, population means a set of individuals or objects. A sample is taken from the population where each individual or object being independent and having an equal chance of selection, the average of the sample is an example of a random sample estimate of a population value(Schumacker and Tomek,2013:43).

The population of this study consists of 52 first -year university students of the Department of English at University of Tikrit/College of Education for Women .as shown in Table(1)

The sample of control group is(26) students, whereas, the sample of the experimental group is(26)students

Table(1)

 Population and Sample of the Current Study

Group	No. of Students	Approach
Experimental	26	Word Processor: Computer Technology
Control	26	Conventional

3.3 Equivalence of the Groups

After choosing the sample of the two groups and before implementing the experimental , an equivalence has been done depending upon certain information provided by the students or other resources. This includes the age of the involved students, and the educational attainment of their parents.

3.4 Instructional Material

The spellchecker has been chosen to be taught by using computer technology. The material is the book in title "New Educational Technology", during 8 week period. The experiment of this study has been done in the first semester of the academic year 2018.The instruction of both groups of students began on the seventeenth of October, continued for about eighth weeks, and ended on the eighteenth of December, 2018. An experimental group is taught by using computer technology while a control group is taught by conventional way.

3.5 Construction of the Achievement Test

An achievement test is a tool to measure the level of knowledge or skill students learned in school or college to determine the academic progress they have made over a period of time. (Kautz and Heckman,2014:3).The test scores are utilize the experimental and control groups to measure what students are acquire from the application of the teaching approaches(ibid).

Therefore, in order to achieve the aims of the test, the researcher has constructed an achievement test to measure students' level of performance in a

composition, an essay, writing a paragraph about self and ,writing an email ,as shown in Appendix(A).

Table (2) describes the contents and behaviours of the achievement test. It indicates that the test involves four questions, all questions are scored out of twenty-five Hence, the total score of the test is hundred .

Table(2)

The Specifications of Contents, Behaviours and Scores of the Achievement Test

No.of Qs.	Contents	Behaviours	Scores
Q1	Composition	to write a composition in terms of marking scheme involving grammar, vocabulary, punctuation, spelling and other issues	25
Q2	Essay	to write a critical analysis of something using appropriate vocabulary ,grammar ,spelling,punctuation and other issues	25
Q3	Paragraph	to write a paragraph about self.	25
Q4	Writing an-email	to write an-email showing the personality, and some information about the appearance and character of the best friend.	25
Total			**100**

3.5.1 Validity of the Test

The first important criteria of a good test is validity. Validity refers to whether or not a test measures what it claims to measure, it always refers to the degree to which that evidence supports the inferences that are made from test scores(Braun and Wainer,2013:16).

The most important kinds of validity are face validity and content validity.Content validity is the estimate of how much a measure represents every element of a construct. In other words, content validity is crucial for tests of the content in order to measure the quality of knowledge that is related to the

test(Gravetter and Forzano,2018:127).

Another important type of validity is face validity that refers to the degree to which a test measures what it appears to measure(Anastas, 2012:321).The constructed test has been exposed to the same jurors who judged the face validity of the questionnaire. The jurors mostly state that the test is valid and appropriate for the level of test takers except for few modifications that have been reviewed and considered. Finally, the goal of validation is to discover that the test meets the aims that are supposed to be measured.

3.5.2 Reliability of the Test

The second important property of a good test is reliability. It refers to the degree to the consistency of the results when the researchers give the same test to the same group of subjects on two different occasions(Brown,2004L20).Reliability is checked by the test-retest method where the similar test is re-administered to the similar group or sample after a short period of time(Weir,1990:32).

3.5.3 Item Analysis

Item analysis refers to estimate how much information each single item contributes to the information provided by the test as a whole. Items analysis includes many statistics that can provide information to improve the accuracy and quality of individual items. It is used to discover how well the test items are working with a particular group of students(Davies,1986:162).

According to McNamara(2000:134) item analysis is a procedure used to analyze features of test items both in difficulty level and discrimination power of the test, as follows:

3.5.3.1 Difficulty Level

The level of difficulty refers to item difficulty as the proportion of the students who respond to a test item correctly and expressed as a percentage to determine the difficulty level of individual test items. The number of students

who answer the item correctly is divided by the total number of students who answer the item(Backhoff et al ,2000:6).

According to Wilson(2005:92) item difficulty is the most crucial component of item analysis.

3.5.3.2 Discrimination Power

Discrimination power tells us if those students who perform well on the whole test tend to do well or badly on each item in the test (Heaton,1988:179).

According to McNamara(2000:60) discrimination-power is an instrument that is used to know if individual items are supplying information on the abilities of candidates consistent with that supplied by the other items on the test. One way to determine an item's power to discriminate is to compare those who have done very well with those who have done very poorly(Wilson,2005:92). The t-test for two independent samples has been used to calculate the differences between the two groups.

3.5.3.4 Final Administration of the Test

In order to compute the clarity of the items , the collocated time for relying the test is 1 hour. It has been administration on a sample of fifty-two students from the University of Tikrit/ College of Education for Women on January 2018.The involved students are asked to answer the questions of the test and finish their responses .Finally, all the test papers have been scored by the researcher according to the prepared scoring scheme by using computer.

3.5.3.5 Scoring Scheme of the Test

The scoring scheme increases the reliability of a test and helps to gain a consistent data about students' performance. So that the procedure for scoring the answer scripts should be prepared (Kongwad,2007 :278).

The constructed test includes four questions. All questions are given twenty-five marks Hence, the total mark of the whole test is 100. Shortly, the highest mark the students could get is20 whereas the lowest mark is 5.

3.2 Construction of the Questionnaire

Questionnaires are any written instruments that present respondents with a number of questions or instruments to which they are to react either by writing out their responses or selecting from the existing responses (Dornyei and Taquchi,2013:3-4).

The items of the questionnaire can be put in a closed form or an opened form. In the current study a closed form questionnaire is used which has a set of options to each item from which the answers can be chosen, as shown in Appendix(A).A Likert scale is used in the current study for studying and measuring answers' stances.

A questionnaire of ten items has been constructed and distributed to EFL students in order to discover the difficulties that students face in use computer technology at University level.The included ten items are presented in the form of statements to be endorsed on a three-point Likerts scale which ranges from agree to disagree.

3.2.1 Validity of the Questionnaire

Validity refers to the extent to which an instrument actually measures what it sets out to measure (Wilkison and Stein, 2007:699).Content validity is achieved in the process of constructing the questionnaire(ibid).

The constructed questionnaire has been exposed to a jury of specialists in linguistics and methodology. The jurors have been asked to review the questionnaire and reflect their ideas about the validity of the included items and areas of the questionnaire.

3.2.2 Reliability of the Questionnaire

Reliability is an important property of a good questionnaire. It refers to the consistency of the results gained concerning the extent to which the instrument yields the same results in repeated trails. The questionnaire must be reliable in order to collect appropriate data(Bibbie,2012:148).

The reliability coefficient of the questionnaire has been found out by using Cronbach's Alpha formula which is a measure of internal consistency .Reliability is how well a questionnaire measures what it intended the items if the numbers of items are increases, Cronbach's Alpha increases as well(Soh,2016:107).

3.2.3 Final Administration of the Questionnaire

After ensuring the validity,reliability,and the effectiveness of the ten items,the final administration of the questionnaire to the sample of the study has been carried   out on January 3rd 2019. Students are required to read each item of the questionnaire and put their respondents if they agree, neutral or disagree by putting a tick($\sqrt{}$) in the column of their choice and in front of each statement.

3.3 Statistical Tools

The following statistical tools are used for analyzing the collected data of the current study:

1.One sample T-Test to find out the differences between the mean scores of the EFL College students performance in the achievement test.The formula is as follows:

T=$\dfrac{\dot{x}-A}{S/\sqrt{N}}$

Where=

T= T-test value

$\dot{x}$=The mean scores

A= The theoretical mean

SD= Standard deviation

N=   Number of the students (ibid)

2.Two independent sample T-Test formula is used to find out differences between the mean scores of the achievement of the two groups in the equalization of age and literature scores.It is also used to find out the significance between the two groups in the post-test.The formula is as follows:

$$T = \dfrac{X_1 - X_2}{\dfrac{\sqrt{(N_1-1)\int_1^2 + (N_2-1)\int_2^2 \quad X(\frac{1}{N_1}+\frac{1}{N_2})}}{N_1+N_2-2}}$$

Where:

X_1 = The mean scores of the experimental group

X_2 = The mean scores of the control group

N_1 = The number of the subjects in the experimental group

N_2 = The number of the subjects in the control group

$\int_1^2$ = Variance of the experimental group

$\int_2^2$ = Variance of the control group   (Howell,2013:185)

3 . **Chi^2:** It is used to find out the significance of differences between the experimental and control groups.

$$x^2 = \sum \frac{(O-E)^2}{E}$$

Where:

X= value of Chi-square

O = the observed Frequencies

E = the Expected Frequencies

(Carroll   and   Hall, 1985:120).

4.Cronbach's Alpha Formula to calculate the reliability of the questionnaire and test.The formula is as follows:

$$A = \frac{N}{N1}\{1 - \frac{\Sigma S1}{S2}\}$$

Where: (Schreiber & Anser self,2011:112)

N=Number of item in a questionnaire

s_1 =Variance of the first group

s_2 =Variance of the second group

5. Difficulty level formula is used to estimate the difficulty level of each item of the tools of the study,i.e. the test as well as the questionnaire:

$$DL = \frac{H + L}{N}$$

Where:

DL= Difficulty level

H =Number of high correct answers.

L =Number of low correct answers.

N =Total number of students in both group (Bloom,1971:181).

6.Discrimination power formula is used to compute the discrimination power of each item of the test as well as the questionnaire:

$$DP = \frac{RU-RL}{1/2T}$$

Where:

DP= Discrimination power

RU= The number of students in the higher group who get the items right.

RL= The number of students in the lower group who get the items right.

T=The total number of the two groups.

(Mehren and Lehman,1973:192) .

Section Four: The Analysis of Results, Conclusions, Recommendations, and Suggestions

The purpose of this section is to analyze the collected data and discuss the obtained results related to the two involved instruments, i.e. the test and the questionnaire of the current study, also recommendations and suggestions for further studies.

4.1 Analysis of the Collected Data in Terms of the Formulated Hypotheses

4.1.1 Comparison between the Students' Performance of the Experimental group in the pre and post- tests

The arithmetic mean of the experimental group in the pretest is (26.62) and that of the post test is (48.00).The computed t-value is found to be (.000) and the tabulated t-value is (-10.336) and (25) under freedom and (o.o5) level of significance, as illustrated in table (4).

This means that there is a significant difference between the experimental group of the study in the pre and post-tests. Thus, the first hypothesis which states that "there are no statistically significant differences of students performance of the experimental group in the pre and post-tests, is rejected. As illustrated in table(4).

Table (4)

The Results of the Experimental Group in the Pre and Post-Tests.

Experimental group	No. of Students	Mean Scores	SD	D F	T-Value		Level of Significance
					Computed	Tabulated	
Pre-test	26	26.62	9.859	2 25	.000	-10.336	0.05
Post-test	26	48.00	17.121				

4.1.2 Comparison Between the Performance of the Control Group in the Pre and Post- Tests

The arithmetic mean of the control group in the pretest is (26.25) and that of the post test is (26.92).The computed t-value is found to be (.000) and the tabulated t-value is (-4.804) and (25) under freedom and (o.o5) level of significance, as illustrated in table (5).

This means that there is significant difference between the control group of the study in the pre and post-tests. Thus, the second hypothesis which states that "there are no statistically significant differences of students performance of the control group in the pre and post-tests, is accepted. As illustrated in table(5).

Table(5)

The Results of the Control Group in the Pre and Post-Tests.

Control group	No. of Students	Mean Scores	SD	DF	T-Value		Level of Significance
					Computed	Tabulated	
Pre-test	26	26.25	8.018	2 25	.000	-4.804	0.05
Post-test	26	26.92	8.086				

4.1.3 Comparison between the Performance of the Control Group and that of the Experimental Group in the Post Test

The arithmetic mean of the control group in the post-test is (26.92) and that of the experimental group is (48.00).Then ,t-test formula for the two independent samples is employed in order to point out whether there is any statistically significant difference between the obtained mean score. The computed t-value is found to be (.000) and the tabulated t-value is (-3.734) and (50) under freedom and (o.o5) level of significance, as illustrated in table (6).

This means that there is a statistically significant difference between the two groups of the study in the post-test. Thus, the third hypothesis which states that

"there are no statistically significant differences of students' achievement in the post-test between the two groups", is rejected. This means that students have been taught by using computer technology have develop their performance.

Table (6)

The Results of the Two Groups in the Post-Test.

Group	No. of Students	Mean Scores	SD	DF	T-Value		Level of Significance
					Computed	Tabulated	
Experimental	26	48.00	17.121	50	.000	-3.734	0.05
Control	26	26.92	8.018				

4.2 Percentages of Students Responses on the Questionnaire

1. In the first statement" I feel comfortable by using a computer to analyze number data", in this statement 20% of the respondents appearing their agreement, however 44% of the respondents select neutral, so the percentage of the respondents who disagree with this statement is 36%.

2. In the second statement." I feel confident by using a computer to organize information" 59% of the respondents agree about this statement, 19% of the respondents say neutral, and 22% of respondents record their disagreement about it.

3. 63% of respondents agree and 14% of respondents select neutral with the third statement" I feel confident by using spell check". and 33% disagreement about it.

4. Results show that 76% of sample agree with the contain of the fourth statement" I feel relax moving blocks of text while word processing, however 10% of the respondents say neutral and 14% of respondents select disagreement about it.

5.The respondents agree with the fifth statement" I feel satisfied by using information I obtain on the world wide web", 32% from the sample appearing their agreement, so the percentage of neutral46%, and only22%refer to disagree.

6.56% of respondents agree with the sixth statement, "I feel confident copying information from a website to another location"., 24% of the respondents select neutral, while 20% disagree.

No.of Items	Items	Agree		Neutral		Disagree	
		N	%	N	%	N	%
1	I feel more comfortable by using a computer to analyze number data.	10	20	23	44	19	36
2	I feel confident by using a computer to organize information.	31	59	10	19	11	22
3	I feel confident by using spell check	33	63	7	14	12	23
4	I feel relax moving blocks of text while word processing.	40	76	5	10	6	14
5	I feel satisfy by using information I obtain on the world wide web.	17	32	24	46	11	22
6	I feel confident copying information from a website to another location.	29	56	13	24	10	20
7	I develop and use criteria for ongoing assessment of technology-based student products.	11	22	11	20	30	58
8	I facilitate learning experience using technology that affirm diversity and provide equity.	22	42	17	33	13	25
9	Curriculum are not ready to use such new	29	55	6	12	17	33

	technology.						
10	Technologies are not available in schools,colleges..etc.	40	76	5	10	7	14

7.In the seventh statement which is "I develop and use criteria for ongoing assessment of technology-based student products", in this statement22% of the respondents agree and also 22% of the respondents say neutral and highly percentage 58% of the respondents of the sample select disagree.

8.42% of respondents agree and 33% of respondents select neutral with the eighth statement ,"I facilitate learning experience using technology that affirm diversity and provide equity". and only 25% refer to disagree.

9.The respondents agree with the ninth statement," curriculum are not ready to use such new technology". 55% from the sample and12% of respondents select neutral and 33% show their disagreement.

10.The respondents agree with the tenth statement," technologies are not available at school, college…etc.".76% from the sample agree with it, however 10%of the respondents say neutral and just14% refer to disagree. As shown in Table(7).

Table 7

The Percentages of Students Responses on the Questionnaire

4.3 Conclusions

The finding of the study lead to the following conclusions:

1.The data treatment prove that a computer technology is an effective approach in making students learn and master the material of misspelling easily.

2.Some students like writing on a computer technology, also most of them are easily to arrange their thoughts .

3.Most of the students agree that a computer technology is able to sophisticate their misspelling of writing.

4.The use of a computer technology increases the interaction among students.

5.The use of a computer technology is not only stimulated the students interest but also attracting and increasing their attention and improve their misspelling of writing.

6.The use of spellchecker on a computer technology decreases their errors of writing.

7.Spell checker provides facility to reduce the typing work and avoid spelling errors.

4.4 Recommendations:

1.It is necessary to investigate the influence of learner and task variables on misspelling production and correction.

2.The teacher should encourage his/her students to interact with each other and this will help them to analyze and participate, this will help correct misspelling in their writing.

4.5 Suggestions for Further Studies

The following studies can be also used for further studies:

1.Using other technologies such as tube and phones calls to correct their misspelling of writing.

2. To do a similar research using computer technology but with different stage such as second or third stage.

3.Using the same technology to improve reading.

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Appendix(A)

The Pre-post tests

Q1:Write a composition about a "Happy Holiday" that you made at a camp with your family by using a computer.   (25)M

Q2:Write an essay about advantages and disadvantages of the network.(25)M

Q3:Write a paragraph about yourself.   (25)M

Q4:Write an- email to a relative about your sister. Referring her name, age, nationality, work, hobbies, character and appearance.   (25)M

Appendix(B)

Questionnaire

Directions: Each of the following statements refer to your desire if you see the use of technology is useful in order to correct their errors of misspelling of writing. Please indicate whether you

3.Agree   2.Neutral   1.Disagree

You are kindly required to put a tick(√) in the column you choose and in front of each item.

No.of Item	Statements	Agree 3	Neutral 2	Disagree 1
1	I feel more comfortable by using a computer to analyze number data.			
2	I feel confident by using a computer to organize information.			
3	I feel confident by using spell check			
4	I feel relax moving blocks of text while word processing.			
5	I feel satisfy using information I obtain on the world wide web.			
6	I feel confident copying information from a website to another location.			
7	I develop and use criteria for ongoing assessment of technology-based student products.			
8	I facilitate learning experience using technology that affirm diversity and provide equity.			
9	Curriculum are not ready to use such new technology.			
10	Technologies are not available in schools,colleges..etc.			