

## **The Impact Of Using Doodle Technique On Improving The Performance Of Reading Comprehension Of High School Students'**

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**Abstract:** This study investigated the effect of using the doodling technique on the reading comprehension of students and studied the significant differences. The research was conducted with 60 female 5<sup>th</sup> High School Students, (N=30) for an experimental group and (N=30) for a control group. Doodle strategies were implemented with the experimental group. Paired-Sample T-Test was used. The pre-test and post-test mean scores of students in the experimental group were compared to the scores of the control group using the independent t-test. The findings of the study revealed that the application of Doodle strategies is very significant in increasing the learners' levels. Therefore, it could be proved that the doodle strategy affected EFL Students' scores and increased a lot.

**Keywords:** Doodle Technique, Improving, Performance, Reading Comprehension, High school.

### **1. Introduction**

Reading is regarded as a valuable ability in educational environments for acquiring skills and information for academic success (Parsania& Padia, 2018:335) and it is important to obtain a detailed understanding of this ability (Zarei &Kavyari Roustai, 2019: 306). Reading comprehension is a fundamental issue for successful engagement in today's dynamic society (Marboot, Roohani, & Mirzaei, 2020:152, Alakrash et. al. 2021). It is a complicated mental task that helps individuals in contemporary culture and society to interact and acquire knowledge through written media.

Besides, the reading ability plays the most significant character using a communicative medium in a lot of EFL/ESL settings and at least in an educational setting (Shamsini& Mousavi, 2014: 40 , Elaf &Hussien 2020). According to Phakiti (2006: 88), reading is fluid, diverse, and many-faceted. That does not appear to be the case, decoding vocabulary sense is sufficient to comprehend a letter.

Language learners can sometimes employ some reading strategies to gain comprehension in reading, including summarizing, question generation, skimming, scanning, and so on. Learners' recognition of the strategies utilized in various reading settings can aid them in gaining knowledge of when and how to use the beststrategies. (Shamsini & Mousavi, 2014: 40).

In an educational setting, reading encompasses not only the transmission of information but also the effectiveness with which this is achieved by different tactics (Tadayon &Afhami, 2017: 118, Alakrash et .al. 2020). Learning can be promoted by a range of tactics from diverse areas of arts (for example, painting, music, and theater) (Dehham,2021).

A lot of investigators have explored the educational consequences of artwork. (Tadayon &Afhami, 2016: 1). One of the most frequent practices among students is doodling or unintentional drawing and is one of the concrete ways in the arena of fine art.

Doodling reduces autonomous stimulation, which is followed by wandering and extreme fatigue, while still keeping the person awake by growing attention (Tadayon &Afhami, 2017:119). ).

Doodling concentrates the mind and keeps it from constantly thinking, resulting in a reduction in attention. (Andrade, 2010: 104).

Recently, kinds of research have shown that doodling can assist with student memorizing (Andrade, 2010: 4; Chan, 2012:1).

#### **1.1 Statement of the Problem**

Reading, according to Kasim and Raisha (2017:309), is considered a foundational ability that can help learners develop their words, articulacy (capacity to connect efficiently), listening, and inscription skills, and eventually support them in comprehending their nonnative language. Reading comprehension can be problematic for students in foreign/second language (L2) settings due to a variety of multifaceted factors or features that are involved in the process of reading, as several scholars have found out (e.g., Cho & Krashen, 2019: 231; Khatib & Jannati, 2015: 58; Abbas, et al.,2018, Alakrash &Bustan ).

Kasim and Raisha (2017:309) have identified a variety of reading difficulties and challenges that EFL learners face, including deficiencies in vocabulary and context knowledge, grammatical knowledge problems, and inadequate reading techniques, all of which are critical to reducing the difficulties (Hammad et al., 2018 & Ali, et al., 2019).

Additionally, reading texts in a foreign language is not the same as reading texts in one's native tongue. The variations between the two languages are likely to vary from lexical to syntactical components (Kasim & Raisha, 2017: 310). Reading in a foreign language is often more complicated than reading in one's mother tongue due to a variety of non-linguistic considerations (Hussein et al.,2019). For example, when it comes to socio-cultural contexts, most students would have no trouble understanding the sociocultural context of the information (ibid).

Students must not only learn to develop their reading skills, but they must also trust in their abilities to comprehend what they have read (Sanford, 2015: 5; Dehham, Bairamani, & Shreeb).

Struggling readers, on the other hand, seldom read for fun and want to stop reading at all costs. This issue stymies reading progress and causes the distance in students' reading abilities between students who read for enjoyment and those who do not (ibid:21 ,Bustan &Alakrash 2020).

Furthermore, multidimensional communications between reader, task, text, and meaning, as well as creating a positive classroom atmosphere to promote strategic reading, are among the variables that may contribute to reading comprehension being a dynamic phenomenon (Marboot, Roohani, & Mirzaei, 2020:152).

Consequently, it is vital to test strategies to minimize daydreaming and mind roaming to help students concentrate and attain improved educational outcomes (Smallwood et al. 2007: 531).

Based on the frequency of doodling among students, this study aims to investigate the effect of doodling on reading comprehension (Chan, 2012: 1). This might imply that doodling would be beneficial if it does not share any mental resources with the core activity. Doodling usually enhances attention, or the ability to retain and recall details, especially in the case of repetitive or complex matters (Andrade, 2010:104). This study intends to clarify whether or not using a doodling strategy in the curriculum impacts the performance of 5<sup>th</sup> High School Students' in Reading Comprehension (Kareem, et al., 2019 & Rahooi, et al., 2019).

### **1.2. Research Questions**

The following research hypothesis was to achieve the objectives of the present study:

1. "Is there a statistically significant difference between the mean scores of the experimental group (those who study using doodle) and those of the control group (those who study using the prescribed method)"?
2. "Is there a statistically significant difference between the mean scores of pre-test and post-test of the experimental group (those who study using doodle)"?

### **1.3 . Purpose**

The importance of this study to art education might be valuable, especially for educators. This could help them understand the reasons why students doodle in class, see the effect of doodling on students' learning, as well as make opportunities for future integration and development of lessons and activities, which would enhance reading comprehension. The educators' flexibility and dedication to the field of learning could be seen through their differences in perspectives concerning doodling. Their keenness and openness to understanding the effects of doodling on students' learning can further support the study's purpose. Likewise, doodling was also a visual language that was expressed subtly, and educators should be more open in understanding its effects openly, deeply, and critically.

### **1.4 Significance**

Reading has a great significance in the process of learning for the following reasons: it helps the learner to think in the new language. It helps the learner who plans to study in an English-speaking society to communicate easily with the native speakers of that society. Therefore, there is a need for EFL teachers to know about the different strategies they can use while teaching reading comprehension .

To the role of strategy in reading comprehension ability, it was of great significance to see whether they could result in better achievements in this ability among Iraqi EFL learners. Also, due to the gap existing in EFL literature concerning the present issue, it might make sense to fill in the gap by conducting relevant studies.

### **1.5 Limitations**

this study is only conducted on 5<sup>th</sup> High School Students. Also, it is limited to the female students participate. Finally, due to limited samples available for study results may not be generalizable beyond the specific population from which the sample will be drawn.

## **2. Theoretical Background**

### **2.1 The History and concept of Visual Images and Doodling**

John Debes was the first who discussed the concept of visual literacy in education in 1969. He was the co-founder of the International Visual Literacy Association and the definition of visual literacy was first used by him.

Visual literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. Using these competencies, learners can communicate with each other and they can know and enjoy the masterworks of visual communication (Debes, 1969:27).

Brill et al (2007: 49-50) mentions that visual literacy is the ability to both accurately interpret and create messages that are transmitted through the sense of sight with emphasis on using communication systems that do not rely primarily on traditional text-based alphabetic or numeric codes.

Doodling has been around for more than 40,000 years. Egyptian hieroglyphics and pictograms found in prehistoric caves exemplify man's use of symbols to communicate a legacy to other cultures. Doodling is a contemporary form of pictogram communication (Qutub, 2012: 72).

Schott (2011: 1133) defines the doodle as "an aimless scrawl made by a person while his mind is more or less otherwise applied". "Doodling or drawing is an element that stimulates divergent thinking". As Walker (2012: 91) believes that "the real creativity takes place, where the most creative thinking and problem-solving come to life".

### **2.2 The importance of Doodling:**

Doodling can also help emotional balance when one is bored, frustrated, or preoccupied. "The drawings may contain unconscious, subconscious, or conscious messages". "Doodles might also reflect an individual's identity, religion, and values" (Qutub, 2012:73).

### **2.3 Reading Comprehension and its Models**

Goodman (1988: 11-12) defines reading skill as "the process which requires readers to interpret graphic signs, delineates reading in a variety of ways, i.e. matching sounds to letters". Sargent, et al. (2009: 362) define comprehension as "the understanding of the text and it oftentimes requires explanations, interpretations, applications, perspectives, empathizing, and self-monitoring".

#### **2.3.1 Bottom-up Model**

Bottom-up Approach is known as phonics which requires the learner to match letters with sounds in a defined sequence (Kucer 1987: 27-51).

#### **2.3.2 Top-down Model**

Richards (1990: 50-51) defined the top-down model "as the use of background knowledge in understanding the meaning of a given text that means readers make the connection between their previous knowledge about a topic situational or contextual knowledge or knowledge stored in long term memory in the form of schemata and scripts".

### **2.4 Previous studies:**

#### **a. Singh and Kashyap (2015)**

This study tried to evaluate the hypothesis of "the doodling benefits when they vary across retrieval strategies (recall vs. recognition)". The results show that the doodling benefits in memory retrieval using recognition over recall. Moreover, this benefit is independent of the amount of doodling.

#### **b. Bangayan-Manera (2019)**

She investigates doodling in Tuguegarao City participated by all public and private schools from the school year 2015-2018. The result showed that through doodling that they were able to release their state of mind: their madness, sexuality, happiness, anger, rebellion, or affection.

#### **c. Sukma, Rozimela, and Ratmanida (2019)**

This study examined the use of drawing tasks to enhance students' reading comprehension. The result also revealed that "the drawing task was interesting for the students". Drawing task offers more "authenticity and creativity to the students to deal with their reading text and comprehension". This study leads to a high motivation and engagement in reading and doing the tasks.

### **3. Methodology**

#### **3.1 Research Methodology:**

The experimental design of pre-test and post-test of the study equivalent groups in which subjects are randomly assigned to "experimental and control groups" and "a pre-test" are administered before the application of the experimental and control treatments and a post-test at the end of the treatment period. This design of the experiment was implemented due to the nature of the research which aims at finding the effect of using "a concept doodling strategy on developing reading comprehension skills".

#### **3.2 Research Procedures:**

To accomplish the aim of the study, the following procedure was done:

1. Selecting a sample (representative) of students from the fifth preparatory stage.
2. Conducting a pre-test for the selected sample.
3. The chosen sample is divided into two groups" the first one is the experimental group where the doodling strategy will be taught by the researcher, and the second one is the control group where the traditional way of teaching will be used by the researcher.
4. At the end of the program, the participants in both groups will be post-tested.
5. Analyzing the results by choosing a suitable statistical method.

#### **3.3 Research Sample**

The population of the present study was restricted to 5<sup>th</sup> "High School Students" in Iraq during the educational year (2020-2021). The sample of the study includes (60) females. Randomly assigning the participants to two equal groups (each group consisting of 30 female 5<sup>th</sup> High School Students) was instructed by the teacher on how to perform reading comprehension.

#### **3.4 Instrument of Data Collection:**

The researcher used pre and post-test for the two groups to achieve the study's observable aim. Reading comprehension test consisted of fifth items were given in the formats: multiple choices and matching. The statistical analysis of obtained data from the pre and post-reading comprehension test were arranged in terms of tables by stating the interpretation of these data.

#### **3.5 Statistical Analysis:**

The following statistical methods were used by the researcher:

Descriptive statistics related to the educational status of parents for both control and experimental groups.

Information about the age of students separately between the two control groups of the experiment.

The scores of students in both groups and both tests.

The Independent T-Test in both groups was used. First, descriptive statistics were presented and then their equality of variance was examined.

Independent t-Test was used to evaluate the differences in the scores of students with a mean age lower and higher than the mean in both control and experimental groups.

Finally, "research questions were examined using the parametric t-test with paired samples (Paired-Sample T-Test)". T-test with paired samples used to analyze tests in which each person was observed twice in two different situations. In these experiments, the size of the variable was examined in two positions (before and after).

#### **3.6 Findings and Discussions:**

To discover the objectives for foreign language teaching as stated in:

1. Is there a statistically significant difference between the mean scores of the experimental group (those who study using doodle) and of the control group (those who study using the prescribed method) ?
2. Is there a statistically significant difference between the mean scores of pre-test and post-test of the pupils of the experimental group (those who study using doodle) ?
3. Is there any statistically significant difference between the mean scores between pre- test and post-test of the pupils of the control group (those who study using the prescribed method)?

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest experimental	28.5333	30	6.31765	1.15344
	posttest experimental	42.1333	30	5.77589	1.05453

The table above showed the average scores of students before and after treatment, and the average scores in the pre-test were 28.53 and in the post-test was 42.13. The table below showed the correlation of scores that according to the significance level of the test (sig = 0.422), no relationship was seen between the two.

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	pretest experimental & posttest experimental	30	.234	.213

**Paired Samples Test****Paired Differences**

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	pretest experimental - posttest experimental	-13.6000	7.49529	1.36845	-16.39879	-10.80121	-9.938	29	.000

According to the table above, the significance level of the test was 0.000, which was less than 0.05, and the null hypothesis was rejected, which means that the students' scores before and after treatment were different. According to the average scores in the two previous cases, it can be said that after treatment the scores increased a lot.

According to the results of the study, it was figured out that there was a significant difference between the experimental and the control groups. Based on the post-test, the mean score of the experimental group is (42.13), whereas that of the control group is (30.200).

It was concluded that the doodling strategy which was employed to teach EFL 5<sup>th</sup> High school Students of the experimental group, is revealed more effective, beneficial, and favorable to teach reading comprehension skills than the conventional method of teaching. This study confirmed Tadayon and Afhami's research in which the students using doodles outperformed the non-doodlers. Related studies accompanied by Andrade (2010: 1) also discovered that doodling as whole improved students' abilities in a different skill.

The result of this research was indicated that doodling decreases meaningfully the existence of daydreaming and/or mind-wandering in EFL 5<sup>th</sup> High school Students. The findings showed that although first, the educational status of parents in the experimental group was preparatory (nine fathers) and primary (eight mothers) and second, their distance of educational status was not high, the student performed better reading

comprehension test.

Through looking at student ages in data, it could be said that doodling strategy as cognitive strategy impact on student' improvement and could not only be applied to high-levels but also could be to be extended to all range of age.

Doodling as visual processing via the brain, act on remember of materials was enhanced. The outcome might remind teachers of the importance of doodling as awareness of students on their reading comprehension proficiency. Instructing reading strategies such as doodling might help language learners achieve a high level of reading comprehension proficiency.

## 9. Conclusions

The researcher concluded that the doodling strategy was a helpful strategy for enhancing reading comprehension performance and facilitating learning this skill. It improved pupils' concentration and awareness during the learning process. Enhancements in teaching reading comprehension could be easily reached according to the results of the post-test which are were higher than those of the pre-test.

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