

# The Impact of Group Testing as a Strategy on University Students' Writing Composition Development

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## Abstract

In academic writing, students at universities struggle when they write a short composition in English as a foreign language. Process writings, such as brainstorming, drafting, obtaining feedback, and rewriting, are pedagogical techniques that are widely utilized to teach writing composition in a foreign linguistic communication in parliamentary procedure to develop writing skills. Teachers frequently, use groups work from which students can benefit when there is positive social interaction. EFL students learn better when they incorporate together and can share their strengths and weaknesses of ideas with others in an effective way, as students complete a composition task with assistance that they may not be able to do individually. Nevertheless, some instructors are reluctant to incorporate group testing activities in writing class. In this study, the researchers investigate the impact of group testing as an assessment strategy on writing composition development. To achieve the aim of this study, a quasi-experimental research design with two types of tests (individual test and group testing) were used. Results revealed that group testing provides a good influential assessment strategy to enhance students' performance in a composition and has a positive effect on long-term retention and enrich their thinking process on subsequent development of writing composition.

*Keywords:* Group testing, students' performance, writing composition development

## Introduction

The language skill, which viewed as the productive technique in writing that holed an indispensable purpose in acquiring knowledge of learning English language for EFL students. Various features could be found in writing skill, which made it unique like other language skills, and became a difficult task for students in writing a composition, specifically in increasing their thinking, inspiration, training, and organisation in writing composition. (Hartoyo, 2011; Arfani & Noor, 2018).

English language teachers couldn't deny the significance of testing in evaluating the learner's success in learning the target language. (Shohamy, Inbar-Lourie & Poehner, 2008; Poehner, 2008). Most instructors discouraged teamwork by means of telling the students to "do your own work" and "keep your eyes on your own paper?" This is educationally inaccurate since composition working is an innovative skill to produce ideas which required discussion and debate among college students themselves with their instructor as well as constructions of the group team.

Several studies had come out regarding group testing (Giuliodori, Lujan & DiCarlo, 2008; Meseke, Nafziger & Meseke, 2010; Wieman, Reiger, & Heiner, 2014; Clarkston & Gilley 2014). The two-stages exam was one way to implement the group testing. The strategy involved students deeply engaged in learning language through feedback from the group which could be acquired immediately during the summative test. As far as, researchers' point of views, there was no research work yet achieved in Iraqi universities on group testing which is the use of two-stages examination in writing composition. Researches in Physics Education showed that group testing was a strategy for good formative assessment (Nuuyoma, 2017; Geronimo & Rosales, 2018).

This study, however, tried to find out the feasible methodological issue effect of group testing on enhancing and developing the students' performance specifically in writing composition. Firstly, the study aimed to replicate the findings of previous researches in group work on developing writing composition as a distinctive strategy by using a group testing instead of individual testing. Group testing was used in this study in order to offer a beneficial result on increasing students' production in text structure as well as developing students' writing composition. Secondly, the study pursued to investigate whether group testing strategy had positive outcomes on long-term retention and improved students' thinking process in studying the complex cognitive writing skill or not.

### **The Research Questions**

To achieve the aims of the study, the following research questions are developed:

1. Is there any significant difference effect on group testing as a strategy on enhancing the students' performance on writing composition?
2. Does developing group testing have a positive effect on developing writing skills in writing composition?
3. Does developing group testing have a positive effect on long-term retention than individual testing and enhance thinking process?

### **The Research Hypotheses**

To achieve the aims of the study, the following research hypotheses are tested:

1. There is a significant statistical difference effect on group testing as a strategy on enhancing the students' performance on writing composition.
2. Employing group testing has a positive effect on developing writing skills in writing composition.
3. Employing group testing has a positive effect on long-term retention than individual testing and enhance thinking process.

### **Theoretical Background and Literature Review**

#### **Group Testing as a Strategy from Theory to Practice**

Great attention had been paid to group interaction on writing specifically, in the early 1970's "when the expert in writing, Kenneth, stated his argument through doing in groups to write essays and fiction, students produced higher performance in writing composition than they did alone". A group work writing technique had become a recent production in writing, and had been used as the pedagogical studies in the twenty first century. The English as a second language (ESL) and English as a foreign language(EFL), for the students could learn better with their friends to get a positive achievement, than they could only interact with their teachers (Spring, 1997).

Additionally, based on the way of the psychologist, Vygotsky, (1896-1934) in reviewing the significance of a learner's social interactions in learning situations. He elucidated that, "learning could be effective when students worked together to finish a task because they produced an interactive learning situation each other and they definitely were monitored and guided by way of their teachers." (Li et al., 2012).

For the concept of group testing, Dorfman (1943) was the first specialist who used the ideas of group testing in the first published paper on the blood testing in (1942) to reduce the number of medical

tests, which is the original idea of group testing. A recent definition of group testing is provided by Meseke, Nafziger & Meseke (2010) who defined the group testing approach as a form of formative assessment where students work together in an environment of small groups during summative tests. It offered a new breadth of assessment since students learn in the process (Wieman, et al, 2014). According to Dijkstra, Latijnhouwers, Norbart and Tio (2016), “all students in one group are awarded the same. Although the group-based assessments are graded, they can be undertaken for formative purposes, because feedback is given to the students”.

### **Review of the Related Studies in Writing Composition and Group Testing**

The most important skill in language Learning/teaching was writing skill, which was provided with an emphasis in second language learning. It was a productive skill because it contributed to enrich intelligence by requiring analysis and production of information. In verbal language, the students had to get the skill as a fundamental basic task in writing corpus linguistics such as words, phrases ,clause , and very brief sentences, in addition the mechanism of writing, discourse markers and the rules of punctuation marks in order to write an effective text (Hartoyo, 2011:111). Writing was a process of finding out what the writer was intended in particular text. Writing was a process of building macrostructure from micro units, which conceded as a mechanism of using words in producing a complete sentence in order to create a piece of writing, or group of paragraphs to construct a composition, report, and college task (Harmer, 2007).

A number of studies investigated the benefits of group work or cooperative learning to enhance writing production. Siddique et al. (2016) and Yusuf, Jusoh & Yusuf (2019) in their studies showed these students gained benefits and improved their writing abilities when they were engaged in-group consequently, which led to improve students' achievement in writing. The study of Yusuf et al. (2015) showed that working in group task had enhanced students' self-confidence in sharing their thinking with each other of different background knowledge and led to develop their interactions and performances like active skills listening, speaking, and turn taking. Besides, working in group could also promote cognitive skills such as, solving problems in various learning areas.

Arfani and Noor (2018) provided many advantages of using group assessment task especially beneficial for EFL students as students work as a team to evaluate and review each other writing on their groups. In addition, the students could identify strengths and

weaknesses in their writings, and support editing skills. They can also share their thinking to create an atmosphere of cooperation/collaborative. Besides, group-testing technique decreased the amount of group work for teachers. Arfani and Noor (2018) revealed that group-testing technique might decrease mistakes in writing, and offered a feedback of each other writing that could develop students' writing. Likewise, group-testing inspired students' reaction to each other through producing and sharing their expressions, ideas, and vocabularies in order to produce a new modifications to their final writing.

A few studies had employed group testing as an assessment strategy to investigate the students' performance (Giuliodori et al., 2009; Giuliodori et al., 2008). Giuliodori, et al. (2008) and Rao et al. (2009) discovered that employing group testing was beneficial for enhancing students' performance. In addition, Nuuyoma (2017) indicated that "group-based assessment approach strategy had a very significant effect on learning nursing students as completing tasks in groups which helped students to develop important skills as critical thinking and debate." Geronimo and Rosales (2018) revealed that there were significant increases in the test scores of the students after having group testing in the four quizzes (problem solving) and two major examinations (multiple choice) in General Physics. Efu (2019) found that group assessments improved student learning.

However, none of these studies investigated the impact of group testing as a strategy in composition writing exam on enhancing students' performance on subsequent development of writing composition. Accordingly, in this study, the researchers investigated the impact of group testing as a strategy on enhancing students' performance in writing composition based on Vygotsky's notion (1978) that students' early attempts at writing skill as grounded in speech and students' knowledge in their own life, their style and their life were experience they get.

Thus, this study investigates the use of group testing based on the results of the previous studies in group testing which had been called "cooperative exam," "group testing" or "two-step exam" (Clarkston & Gilley, 2014; Geronimo & Rosales, 2018). In the two-stages exam (individual test- group test) the students had first to submit a complete traditional exam individually, then, in the second stage, they answered the same exam in groups (i.e., group testing).

## **Methodology**

### **The Participants**

For the purpose of the study, a hundred (100) students at the academic level in second stage (male and female) in the English Language department in the college of Basic Education at Mosul University in Iraq were selected. The participants were chosen from the second stage and they were all enrolled in composition writing courses that met once a week for ninety minute lessons. Therefore, the participants in this study were selected purposely since the participants, in this level, were studying composition writing in two semesters (1<sup>st</sup> and 2<sup>nd</sup> semester). The researchers taught composition writing to the class based on Academic writing from paragraph to easy book (Zemach & Rumisek, 2009). The subject of composition writing had plenty of practical exams and exercises, which could be done in groups. Each group included at least five members who were chosen by the instructors.

### **The Procedure**

The procedure of this study was divided into three phases, in the first phase, the researchers began to explain the compositions to the students for ninety minutes once a week. Then, in the second stage, the researchers asked the participants to answer questions of the writing composition test individually (1<sup>st</sup> individual test). The purpose of this test was to test the students' achievements in writing a composition as a summative assessment to evaluate students' performance. In the third phase, after completing the exam in individual form (1<sup>st</sup> individual test), the researchers explained instrumental procedures to the participants about the group testing. Each group included five participants and had to complete the same questions of composition test of sheet work in group (1<sup>st</sup> group testing). The test consisted of several questions that were related to the techniques of academic writing for instance: types of sentences according to their structures such as the simple sentence, compound sentence, complex sentence, and compound complex sentence and types of sentence according to their functions of language such as affirmative sentence, interrogative sentence, imperative sentence, and exclamatory sentence, and using suitable grammatical words such as coordinating conjunctions, sub-ordinate conjunctions to connect different sentences coherently. The participants were asked to answer the sheet in forty-five minutes. This test was done during the 1<sup>st</sup> semester for the academic year (2018-2019).

In the 2<sup>nd</sup> semester, the procedure was divided into three stages consistently. The researchers explained the subject of writing descriptive and narrative paragraphs in academic writing to the same

groups who involved in 1<sup>st</sup> semester. Then, in the next week, they asked each group to write one-two paragraphs in descriptive and narrative composition between eighty and one hundred words according to the features of quality of a good paragraph under the steps of academic writing. After completing the 2<sup>nd</sup> group testing, the researchers asked the undergraduate students to answer another test of writing descriptive and narrative paragraphs in the form of composition test individually, i.e. each student had to answer the test alone (2<sup>nd</sup> individual test) in order to investigate whether the group testing had an influential effect on enhancing students' performance and led to develop their writing composition.

### **Research Instruments**

Two types of tests (Individual test and group testing in writing composition) were used as research instruments of the independent variable to evaluate the students' performance in writing composition of a short paragraph. The first post-test, which consisted of thirty (30) questions of correct the sentences according to types of sentences, was tested individually after the explanation techniques of writing composition. Then the researchers employed the group testing as a second post-test, which consisted of thirty (30) questions and the same design of the first question but in different sentences, to investigate the influence of "group- testing" on enhancing students' performance in writing a paragraph. After that, in the second semester, the researchers employed group testing as a third post-test which was writing 2-3 paragraphs about certain topic in and was applied in group. Finally, the participants had been tested individually as a fourth post-test, which was consisted of writing 2-3 paragraphs in different topic and was applied individually, to investigate whether the group testing had a significant influential effect on enhancing students' performance in composition and developing composition writing with enhancing their thinking process. In addition, the group testing was employed to investigate the students' capability of writing a descriptive and narrative composition. Therefore, they were asked to write a composition consisted of 80 words to 100 words.

### **Design**

The research questions proposed in this study required "a quasi-experimental method of research compares the two techniques" in writing composition test, individual test and group testing. The researchers tried to observe whether there was an enhancement and progress of employing group testing strategy or individual test on students' performance in writing composition. The quasi-experimental research design of quantitative research method was employed in this

study. According to White and Sabarwal (2014, p. 1) “quasi-experimental research design was test causal hypotheses identify a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics”. Figure 1 showed the quasi-experimental research design.

| TREATMENT CONDITION   |              |
|---|--------------|
| FIRST SEMESTER  |              |
| Explaining the techniques of writing composition ( explain the grammatical structure of part of speech, the kinds of sentences: simple sentence, compound, complex, compound complex sentences) |              |
| 1 <sup>st</sup> Post-Test   | QUANTITATIVE |
| 1 <sup>st</sup> INDIVIDUAL TEST   |              |
| 2 <sup>nd</sup> Post-Test   | QUANTITATIVE |
| 1 <sup>st</sup> GROUP TEST  |              |
| Compare between and individual test group testing to investigate the students' performance on writing composition   |              |
| SECOND SEMESTER   |              |
| Explain how to write a paragraph  |              |
| 3 <sup>rd</sup> Post-Test   | QUANTITATIVE |
| 2 <sup>nd</sup> GROUP TEST  |              |
| 4 <sup>th</sup> Post-Test   | QUANTITATIVE |
| 2 <sup>nd</sup> INDIVIDUAL TEST   |              |
| Compare between group testing and individual test to investigate the effect of group test on enhancing students' writing composition and their thinking   |              |

Figure 1: The Quasi Experimental Research Design

## Data analysis

The data of the individual test and group testing in writing composition were used to verify a statistically significant difference on enhancing students' performance in writing composition. The data were scored the components of composition “content, vocabulary, organization, grammar, and mechanics”, after the submission of a single test and group testing of writing a paragraph. In order to test the hypotheses of this study, the T-tests were conducted by statistical software program of SPSS version 20.

The data were analysed quantitatively using “descriptive and inferential statistics”. The statistical analysis of the post-test for the individual test and the group testing were conducted to investigate whether group testing had a beneficial effect on enhancing writing composition. The “descriptive statistics” analysis of the post-test was based on the mean, standard deviation. Additionally, the inferential statistics analysed the significant difference between the mean scores of the students' writing performance in the post-tests of individual test and group testing based on writing components which had been content, vocabulary, organization, grammar and mechanics adopting



paired sample T-test. The paired sample T-test was a suitable statistic used to compare the two mean scores of different group who received different treatments of testing writing paragraph. The level of statistical significance difference ( $\alpha$ ) was set at 0.05. The group testing and individual test where the independent variable, whereas the students' production in their writing composition was the dependent variable.

## Findings

As said before, the study aimed at examining the impact of using group testing as a strategy on developing writing composition of Iraqi level EFL students. Paired-T. tests of the data were run on the writing composition test of both group testing as well as individual test to determine and show whether the differences between the means of students at the group testing were beneficial effect on students' performance in composition writing. Table (1) showed the overall results of means scores of the writing composition test in 1<sup>st</sup> individual test and 1<sup>st</sup> group testing. Data displayed in Table (1) showed that students who involved in 1<sup>st</sup> group testing obtained higher mean score (57.45) and Std. Deviation (8.748) than those who involved in 1<sup>st</sup> individual test who obtained the mean score (50.86) and Std. Deviation (11.244). It indicated that students' performance in writing composition test while they engaged in 1<sup>st</sup> group testing seemed different, outperformed and outstanding than the students' performance who engaged in 1<sup>st</sup> individual test. Noticeably, the descriptive statistical of writing composition displayed in Table (1) showed that the mean score of the 1<sup>st</sup> group testing was 57.45, and Std. Deviation which was (8.748), whereas the mean score of the 1<sup>st</sup> individual test was 50.86 and Std. Deviation was (11.244).

Table 1: Descriptive Statistical of Writing Composition Test in  
1<sup>st</sup> Semester

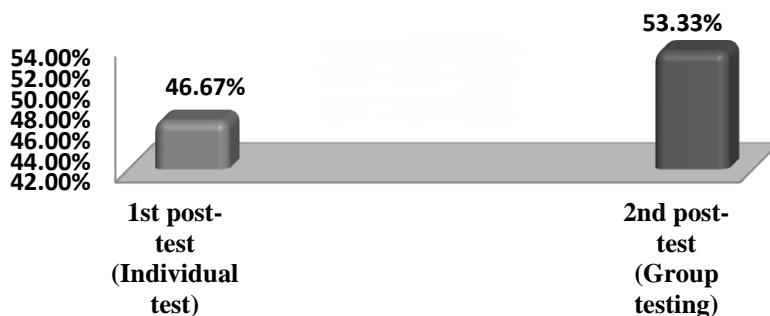
| TYPES OF TESTING                |                 | Statistic | Bootstrap |            |                         |        |
|---------------------------------|-----------------|-----------|-----------|------------|-------------------------|--------|
|                                 |                 |           | Bias      | Std. Error | 95% Confidence Interval |        |
|                                 |                 |           |           |            | Lower                   | Upper  |
| 1 <sup>st</sup> INDIVIDUAL TEST | Mean            | 50.86     | -.05      | 1.18       | 48.48                   | 53.07  |
|                                 | N               | 100       |           |            |                         |        |
|                                 | Std. Deviation  | 11.244    | -.101     | .720       | 9.729                   | 12.519 |
|                                 | Std. Error Mean | 1.124     |           |            |                         |        |
| 1 <sup>st</sup> GROUP TESTING   | Mean            | 57.45     | -.02      | .88        | 55.63                   | 59.03  |
|                                 | N               | 100       |           |            |                         |        |
|                                 | Std. Deviation  | 8.748     | -.057     | .602       | 7.478                   | 9.832  |
|                                 | Std. Error Mean | .875      |           |            |                         |        |

Obviously, the results showed that performing group testing triggered a significant difference effect in writing composition test. In other words, significant differences occurred in results of writing composition test when the students involved in group testing as  $t = -5.693$ ,  $p < .000$  as could be observed in Table 2. The result of paired t-test suggested that there was a significant difference between the mean scores of the 1<sup>st</sup> individual test and 1<sup>st</sup> group testing in writing composition.

Table 2: Paired Samples Test

| TYPES OF TESTING |  | Paired Differences |                   |                               |   |        | t              | df | Si<br>g.<br>(2-<br>tail<br>ed) |
|------------------|--|--------------------|-------------------|-------------------------------|---|--------|----------------|----|--------------------------------|
|                  |  | Mea<br>n           | Std.<br>Deviation | Std.<br>Erro<br>r<br>Mea<br>n | 95% Confidence<br>Interval of the<br>Difference |        |                |    |                                |
|                  |  |                    |                   |                               | Lower   | Upper  |                |    |                                |
| Pair<br>1        | The results<br>of writing<br>compositi<br>on in<br>1 <sup>st</sup><br><u>individual</u><br><u>test</u> and<br>1 <sup>st</sup><br><u>group</u><br><u>test</u> | -<br>6.59<br>0     | 11.576            | 1.15<br>8                     | -8.887  | -4.293 | -<br>5.6<br>93 | 99 | .00<br>0                       |

Table 2 explained that the group testing was an important since the p-value = .000. It concluded that there was an influential outcome of using group testing to enhance students' performance in descriptive and narrative writing composition. This exposed that group testing had been more effective for the proficiency of EFL students in writing composition. Figure (2) showed that students' performance in answering the questions of writing composition test when they were engaged in 1<sup>st</sup> group testing obtained a higher percentage (53.33%) than their performance when they involved in 1<sup>st</sup> individual test (46.67%) as displayed below in Figure (2).

Figure 2: The Results of Writing Composition Test in 1<sup>st</sup> Semester

To determine the second research question whether the group testing has a positive effect on developing writing skills in writing composition, Paired t-test was run to investigate the effect of group testing in developing the writing composition of EFL students. Table (3) showed the descriptive statistics for the 2<sup>nd</sup> test of writing composition, the mean scores, standard deviations, and standard errors of writing composition test for the 2<sup>nd</sup> individual test and 2<sup>nd</sup> group testing. Obviously, the data displayed on Table (3) indicated that students' performance in writing composition test while they were involved in 2<sup>nd</sup> individual test after performing the group testing seemed different and outstanding than their performance when they involved in 1<sup>st</sup> individual test before performing group testing in the 1<sup>st</sup> semester.

Outstandingly, Table (3) showed that the mean scores in the 2<sup>nd</sup> individual test after performing group testing which was (63.07) and Std. (4.377) seemed higher than the mean score of the 2<sup>nd</sup> group testing in the 2<sup>nd</sup> semester which was (57.45) and Std. (9.637). The mean score of the 2<sup>nd</sup> group testing in 3<sup>rd</sup> post-test in the 2<sup>nd</sup> semester was the same mean score when the students engaged in 2<sup>nd</sup> post-test of group testing in the 1<sup>st</sup> semester which was (57.45) and Std. (8.748). It implied that group testing facilitated learning and enhanced students' knowledge of writing composition techniques when they involved in group testing as could be shown in Table (3).

Table 3: Descriptive Statistics Writing Composition Testing in 2<sup>nd</sup> Semester

| TYPES OF TESTING                   | Bootstrap       |           |      |            |                         |       |
|------------------------------------|-----------------|-----------|------|------------|-------------------------|-------|
|                                    |                 | Statistic | Bias | Std. Error | 95% Confidence Interval |       |
|                                    |                 |           |      |            | Lower                   | Upper |
| 2 <sup>nd</sup> GROUP TESTING      | Mean            | 57.45     | .00  | .00        | 57.45                   | 57.45 |
|                                    | N               | 100       |      |            |                         |       |
|                                    | Std. Deviation  | 9.637     | .000 | .000       | 9.637                   | 9.637 |
|                                    | Std. Error Mean | .964      |      |            |                         |       |
| 2 <sup>nd</sup> INDIVIDUAL TESTING | Mean            | 63.07     | .00  | .00        | 63.07                   | 63.07 |
|                                    | N               | 100       |      |            |                         |       |
|                                    | Std. Deviation  | 4.377     | .000 | .000       | 4.377                   | 4.377 |
|                                    | Std. Error Mean | .438      |      |            |                         |       |

The results showed that the 2<sup>nd</sup> individual test after performing the 2<sup>nd</sup> group testing triggered a significant difference effect in writing composition test when the students involved in group testing as  $t = -5.305$ ,  $p < .000$  as could be observed in the Table (4). The result of paired t-test suggested that there was a significant difference between the mean scores of the 2<sup>nd</sup> individual test and 2<sup>nd</sup> group testing in writing composition test which was (-5.620).

Table 4: Paired Samples Test

| RESULTS OF TESTING |   | Paired Differences |                |                 |   |         | t       | df | Sig. (2-tailed) |
|--------------------|---|--------------------|----------------|-----------------|---|---------|---------|----|-----------------|
|                    |   | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |         |         |    |                 |
|                    |   |                    |                |                 | Lower                                     | Upper   |         |    |                 |
| Pair 1             | The results of writing composition test in 2 <sup>nd</sup> Group Testing and 2 <sup>nd</sup> Individual Testing | - 5.620            | 10.593         | 1.059           | -7.722                                    | - 3.518 | - 5.305 | 99 | .000            |

To sum up, the students who involved on the 2<sup>nd</sup> group testing gained some knowledge of the subject. Since the p-value is below ( $\alpha = 0.05$ ), it explained that the employing of group testing was significant on enhancing students' performance and developed their writing composition. The higher mean score in 2<sup>nd</sup> individual test in 2<sup>nd</sup> semester which was (63.07) indicated that students' performance in composition writing increased in their knowledge of components of writing composition after the performing the 2<sup>nd</sup> group testing. This evidence showed that students were capable to write a good effective sentence and paragraph. Moreover, the students had the ability to control the overall structures when they involved in group testing in comparing the 1<sup>st</sup> individual test before the performing of group testing. The mean scores of the 2<sup>nd</sup> individual test after performing the group testing seemed a higher score than the mean scores of the 1<sup>st</sup> individual test before performing the group testing as shown in Table (5). The results also showed that the group testing as an assessment strategy simplified the students' performance to get better in their writing components and yielded a coherent content to write a good paragraph.

Table 5: Descriptive Statistical Writing Composition Test in 1<sup>st</sup> and 2<sup>nd</sup> Individual Test

| TYPES OF INDIVIDUAL TEST  |                 | Statistic | Bootstrap |            |                         |        |
|---|-----------------|-----------|-----------|------------|-------------------------|--------|
|   |                 |           | Bias      | Std. Error | 95% Confidence Interval |        |
|   |                 |           |           |            | Lower                   | Upper  |
| 1 <sup>st</sup> Individual Test before performing group testing | Mean            | 50.86     | .00       | 1.14       | 48.64                   | 53.09  |
|   | N               | 100       |           |            |                         |        |
|   | Std. Deviation  | 11.244    | .062      | .698       | 9.782                   | 12.485 |
|   | Std. Error Mean | 1.124     |           |            |                         |        |

|  |                    |       |               |      |       |       |
|--|--------------------|-------|---------------|------|-------|-------|
| 2 <sup>nd</sup><br>Individual<br>Test after<br>performin<br>g group<br>testing | Mean               | 63.07 | .00           | .43  | 62.24 | 63.92 |
|  | N                  | 100   |               |      |       |       |
|  | Std.<br>Deviation  | 4.377 | -<br>.04<br>4 | .256 | 3.815 | 4.838 |
|  | Std. Error<br>Mean | .438  |               |      |       |       |

Obviously, a significance difference occurred in writing composition test when students involved in 2<sup>nd</sup> individual test after performing group testing as  $t = -10.386$ ,  $p < .000$  as can be observed in Table 6. The result of paired t-test suggested that there was a significant difference between the mean scores of the 1<sup>st</sup> individual test before performing group testing and 2<sup>nd</sup> individual test after performing group testing in writing composition test.

Table 6: Paired Samples Test

| RESULTS OF TESTING |  | Paired Differences |                |                 |   |        | t       | df | Sig. (2-tailed) |
|--------------------|--|--------------------|----------------|-----------------|---|--------|---------|----|-----------------|
|                    |  | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |        |         |    |                 |
|                    |  |                    |                |                 | Lower                                     | Upper  |         |    |                 |
| Pair 1             | the results of writing composition test in 1 <sup>st</sup> individual test and 2 <sup>nd</sup> individual test | -12.210            | 11.756         | 1.176           | -14.543                                   | -9.877 | -10.386 | 99 | .000            |

To answer the third research question whether the employing of group testing has a positive effect on long-term retention and enhance thinking process, the results of the comparison between the mean scores of the 1<sup>st</sup> individual test and 2<sup>nd</sup> individual test revealed the higher percentage in 2<sup>nd</sup> individual test after performing group testing as obtained (53.77%) which displayed bellow in Figure 3. It indicated that group testing in addition to enhancing the students' performance in composition writing, it assisted students to improve their writing composition and retain the component knowledge of the writing paragraphs, see Figure 3.

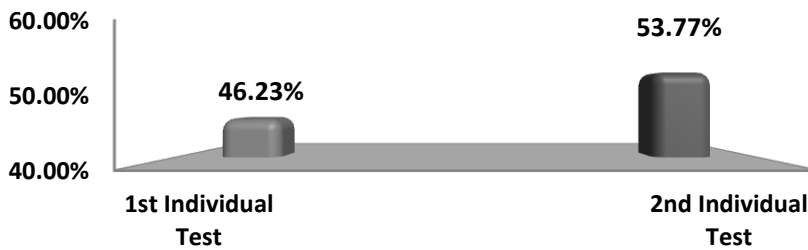


Figure 3: The Difference of the Learners' Performance in Individual Test before and after Performing Group Testing

Thus, group testing seemed to be superior to individual once when students engaged with knowledgeable groups; they enhanced their language skill and obtained a good knowledge. Further, the comparative achievements made by the students in an individual test were not seen at the expense of their classmates. It recommended that students promoted from group testing on enhancing their performance in writing composition and eventually developing in writing composition.

## Discussions

In view of the research questions, the results of statistical analysis revealed that group testing as an assessment strategy of composition writing in EFL was proved an overall significant effect on enhancing students' performance in composition writing and improved writing skill of Iraqi EFL students. The results of the first research question indicated that a beneficial difference effect among the 1<sup>st</sup> individual test and group testing in composition writing test. The findings proved that inclusion group testing in composition writing test had culminated significant positive outcome on enhancing the students' performance in composition writing. Findings supported by the results of the previous studies of Giuliadori et al (2008); Giuliadori et al., (2009) and Nuuyoma (2017) and proved that employing group testing was beneficial for enhancing students' performance. Therefore, the 1<sup>st</sup> hypothesis will be accepted that there is a significant statistical difference effect on group testing as a strategy on enhancing the students' performance on writing composition.

In fact, the results indicated that group testing provided good influences on the students' learning process. The higher achievement of group testing lied in the notion that each learner had a shared aim of doing well and gaining the group award. Then, they would do the best, and be willing to share their ideas thoughts and assist each other's. Moreover, group testing as an assessment strategy could raise their

confidence and stimulate them to learn more in the classroom (Yusuf et al., 2019; Yusuf, et al., 2015). Additionally, the results concord the previous studies documented that student performance on composition test was beneficial higher effect when students completed the same test in groups than when they completed the composition test individually as shown in Figure (2). Accordingly, the higher production for the group work supported the notion that group testing facilitated learning process (Cortright, Collins, Rodenbaugh, & DiCarlo, 2003, 2005). Therefore, group testing increased students' performance in the exams .

Obviously, the students when they were involved in the group testing achieved superior in means scores and they showed better production in the five elements of writing, which were content, vocabulary, organization, grammar, and mechanics which led to produce a good quality of composition and for composition writing assessment. The advancement in the students' writing performance of the composite scores and the five writing elements could be owed to the fact that group testing brought a shared cognitive set between students (Johnson, Johnson & Smith 1991). In fact, when students shared their viewpoints and feedback on a common issue, they could be capable to produce thoughts, comprehend whatever they thought and realized the issue better and provided a good assistance in composition writing. In addition, group testing delivered the opportunity for students to learn the material of composition writing. Outstanding to the fact that employing group testing offered a platform for students to analyse and generate thoughts realizing their own errors when writing which led to a higher level of thoughtful and comprehension (Nor & Kepol, 2005).

For the second research question, the results of the 2<sup>nd</sup> exam of group testing and the results of the 2<sup>nd</sup> individual tests in writing paragraph showed that the mean scores of the 2<sup>nd</sup> individual test (63.07) obtained higher than the mean scores of the 1<sup>st</sup> individual test (50.86). It indicated that the students after employing the group testing in second semester recorded better in descriptive and narrative writing paragraphs. Therefore, the 2<sup>nd</sup> hypothesis will be accepted that employing group testing has a positive effect on developing writing skills in writing composition. Basically, the idea of putting students in small groups had given them more confidence in sharing ideas with their peers of different backgrounds, since students in group testing had stimulation to attain their attention and had effectively responses to the writing lessons. Working in group testing fostered cognitive skills such as problem-solving, detection learning and inspiration (Yusuf et al., 2019; Yusuf et al., 2015).

In the third research question, the results indicated that students' performance in group testing had a significant positive effect on long-term retention. The enhancement of the students' writing was increased in 2<sup>nd</sup> individual test after performing group testing. It revealed that students in 1<sup>st</sup> individual test before the performing of group testing forgot the component knowledge of composition writing mechanics. This due to the students when tested individually did not share their thinking and ideas; students had not opportunity to share their viewpoints about the topic and discussed their errors with providing solutions as feedback. Consequently, students might forget what they have learnt. According to the previous study of Cortright et al. (2003, 2005) had documented that, after a short time, students failed to recall what they had learned if they had been tested individually.

Importantly, the high percentage of the students' performance in 2<sup>nd</sup> individual test on composition writing indicated that students' performing in group testing were able to get new ideas and more correct answers from each other that it was easy facilitation to answer the question and they also had brain storming. Furthermore, students had the ability to solve the problems due to the different ideas that other students were sharing on how to solve the problem and answer the composition writing test. Knowledge of the components writing a paragraph was shared in the test that led most of the students corrected their mistakes which occurred in 2<sup>nd</sup> individual test after performing group testing. The results of this study concurred with the study of Geronimo and Rosales (2018) that the best way to get ideas from other classmates was through discussions conducted during the group testing. Therefore, the 3<sup>rd</sup> hypothesis will be accepted that employing group testing has a positive effect on long-term retention than individual testing and enhance thinking process.

Finally, group testing had confirmed to be one of the significant assessment strategies in increasing students' performance in writing, as it improved cooperation, reduced isolation, and eventually developed academic achievement, in addition to the improvements of gaining greater average, critical thinking, problem solving, and interactive skills. (Slavin, 2011). Besides, the findings of this study were concord with social constructivist concept of learning which argued that group testing could develop the quality of students' writing skill (Weissberg, 2006).

Consequently, this study was beneficial for the students while they engaged in writing composition test. During the individual test which was conventional test, the students sat silently and responded to the writing composition test. Whereas, with the group testing strategy labelled in this study, that means accurate answers with viewpoints



and arguments were discussed between the students. In this study, the role of the lecturers were to assist students to discover the reason behind accurate and inaccurate answers. Additionally, it was also useful for the lecturers for the reasons that many issues misconceptions were revealed in the process. Finally, it could be concluded that group testing enriched the performance of the students. However, the beneficial positive impact was greater for students at intermediate level. A question arises whether the group testing was a beneficial effect on enhancing students' performance at high school. Further research should be discussed the correlation between the level of students and students' performance in writing composition or writing essay when they involved in group testing. In addition, future studies should be taken in consideration the beneficial effect of group testing on enhancing students' achievements in writing descriptive and narrative composition.

## Conclusions

Based on the results and discussions explained in the research, the following deductions could be concluded:

1. Employing a group testing as an influential assessment strategy had a positive effective role on increasing and promoting students' performance on writing composition. In addition to that, group testing had showed a significant assessment strategy on long-term retention.
2. Group testing presented virtuous development in the five criteria of writing which are content, organization, vocabulary, grammar, and mechanics, and they were significant in constructing a good paragraph.
3. The function of group testing was successful in inspiring students to work harder on refining their writing composition and writing skill and this was reflected in the development of their writing scores in 2n individual test when performing group testing.
4. Students in 2<sup>nd</sup> individual test produced higher performance in writing composition test that due to cooperation with group and with the lecturer which powerfully correlated with improvements in their thinking, viewpoints, critical thinking, and problem solving which led to enhance their thinking process.
5. In group testing the students attained the ability to communicate with each other making a strong relationship among them. Subsequently, group testing was an effective tool of formative assessment wherein corrected answers in summative tests, elaborated through the interaction with the group. Thus, learning experiences could expand through their implementations.

## References

- Arfani, Sri, & Noor, Idris (2018). The Effectiveness of Using Peer and Self-Editing Techniques to Improve Students' Writing Descriptive Composition (A Study of 3rd Semester Students at the Institute of Bina Sarana Informatika -Fla-Ibsi) Jakarta Indonesia. *International Journal of English Language Teaching*, January 6(1), 32-48.
- Clarkston, B., & Gilley, B. (2014). Collaborative Testing: Evidence of Learning in a Controlled In-Class Study of Undergraduate Students. *Journal of College Science Teaching* 43(3), 83–91.
- Cortright, R. N, Collins, H. L., & DiCarlo S.E. (2005). Peer instruction enhanced meaningful learning: ability to solve novel problems. *Advances in Physiology Education*, 29, 107–111.
- Cortright, R. N., Collins, H. L., Rodenbaugh, D. W., & DiCarlo, S.E. (2003). Student retention of course content is improved by collaborative-group testing. *Advances in Physiology Education*, 27, 102–108.
- DiCarlo, S. E. (2006). Cell biology should be taught as science is practised. *Nat Rev Mol Cell Biol*, 7, 290–296.
- Dijkstra, J., Latijnhouwers, M., Norbart, A., & Tio, R. A. (2016). Assessing the “I” in group work assessment: State of the art and recommendations for practice. *Medical Teacher*, 38(7), 675-82. <https://doi.org/10.3109/0142159X.2016.1170796>
- Dimock, H. G., & Kass, R. (2008). *Leading and managing dynamic groups*. Concord, Ontario: Captus Press.
- Donato, R. (2004). Aspects of collaboration in pedagogical discourse. In *Annual review of applied linguistics*, Cambridge: CUP, 284-302.
- Dorfman, R. (1943). The detection of defective members of large populations. *Ann. Math. Statist*, 14, 436-40.
- Efu, S.I. (2019). Exams as learning tools: A Comparison of traditional and collaborative assessment in higher education, *College Teaching*, 67(1), 73-83.doi: 10.1080/87567555.2018.1531282. <https://doi.org/10.1080/87567555.2018.1531282>
- Geronimo, V. M., & Rosales, B. M. (2018). Two-Stage Collaborative Group Testing in General Physics Class. *International Education & Research Journal*, 4 (2), 4-7.
- Giuliodori, M. J., Lujan, H. L., & DiCarlo, S E. (2008). Collaborative Group Testing Benefits High- and Low Performing Students.” *Advances in Physiology Education*, 32(4):274–8. doi:10.1152/advan.00101.2007
- Giuliodori, M. J., Lujan, H. L., & DiCarlo, S. E. (2009). Student interaction characteristics during collaborative group testing.

- Advances in Physiology Education, 33, 24-29.  
doi:10.1152/advan.90161.2008.
- Gould, E. (2000). *The act of writing*. New York: Random House.
- Harmer, J. (2007) *How to teach writing*. New York: Cambridge University Press.
- Hartoyo. (2011) *Language of assessment*. Semarang: Pelita Insani.
- Johnson, D., Johnson, R. W., & Smith, K. (1991). *Active Learning: Cooperation in the College Classroom*; Interaction Book Company. Cornelia Drive: Edina, MN55435, ISBN 0-939603-14-4
- Li, X., Chu, S. , Ki, W. , & Woo, M. (2012). Using a wiki-based collaborative process writing pedagogy to facilitate collaborative writing among Chinese primary school students. *Australasian journal of educational technology*, 28(1), 159-181.
- Nor, M. M., & Kepol, N. (2005). The use of cooperative tasks in ESL composition by form one ESL writing students. *Teaching and Learning of English in a Second Language*. Tanjung Malim: Universiti Pendidikan Sultan Idris
- Meseke C. A., Nafziger, R., & Meseke, J. K. (2010). Students Attitudes, Satisfaction and learning in a collaborative testing environment. *The Journal of Chiropractic Education*. 24(1), 19–29. doi: 10.7899/1042-5055-24.1.19
- Nuuyoma, V. (2017). *The Group-based Assessment Approach in Nursing Education: The Perspective of Nursing Students on Group-based Assessment Process at a Namibian University*. *International Journal of Higher Education*. 6(3), 91-98. doi:10.5430/ijhe.v6n3p91. URL: <https://doi.org/10.5430/ijhe.v6n3p91>
- Poehner, M. E. (2008) *Dynamic assessment: A Vygotskian approach to understanding and promoting l2 development*. Berlin: Springer.
- Rao, S. P., Collins, H. L., & DiCarlo, S. E. (2009). Collaborative testing enhances student learning. *Advances in Physiology Education*, 26, 37–41. doi:10.1152/advan.00032.2001
- Shohamy, E., Inbar-Lourie, O., & Poehner, M. (2008). *Investigating Assessment Perceptions and Practices in the Advanced Foreign Language Classroom (Report No 1108)*. University Park, PA: Centre for Advanced Language Proficiency Education and Research (CALPER).
- Siddique, M., & Sarjit Singh, M. K. (2016). Effectiveness of Cooperative Learning in Enhancing Students' Essay Writing Skills in Pakistani Colleges. *International Journal of Humanities and Social Science Invention*, August, 5(8), 68-70.

- Slavin, R. E. (2011). Instruction based on Cooperative Learning. In R.E. Mayer & P.A. Alexander (Eds.), *Handbook of Research on Learning and Instruction* (pp. 344-360). New York: Taylor & Francis.
- Spring, M. (1997). Collaborative literary creation and control: a socio historic, technological and legal analysis. <http://mako.cc/Collablit/writing/BenjMako->
- Storch, N. (2005). Collaborative writing: product, process and students' reflections. *Journal of Second Language Writing* 4, 153-173. doi:10.1016/j.jslw.2005.05.002.
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Weissberg, B. (1994). Speaking of writing: Some functions of talk in the ESL composition class. *Journal of Second Language Writing* 3(2), 121-139. [https://doi.org/10.1016/1060-3743\(94\)90011-6](https://doi.org/10.1016/1060-3743(94)90011-6)
- Weissberg, B. (2006). *Connecting speaking and writing in second language writing instruction*. Arbor: University of Michigan Press 839 Greene Street Ann Arbor, MI 48104-3209. doi: 10.3998/mpub.6702
- White, H., & Sabarwal, S. (2014). *Quasi-Experimental Design and Methods*. Florence: United Nations Children's Fund (UNICEF). UNICEF Office of Research - Innocenti
- Wieman, C., Reiger, G., & Heiner, C., (2014). Physics exams that promote collaborative Learning. *The Physics Teachers*, 52, 52-53. doi:10.1119/1.4849159 [www.cwsei.ubc.ca/SEI\\_research/files/physics/Wieman-Reiger-Heiner](http://www.cwsei.ubc.ca/SEI_research/files/physics/Wieman-Reiger-Heiner)
- Yusuf, Q., Jusoh, Z., & Yusuf, Y. Q. (2019). Cooperative Learning Strategies to Enhance Writing Skills among Second Language Students. *International Journal of Instruction*, 12(1), 1399-1412. doi: 10.29333/iji.2019.12189a
- Yusuf, Y. Q., Natsir, Y., & Hanum, L. (2015). A teacher's experience in teaching with Student Teams-Achievement Division (STAD) technique. *International Journal of Instruction*, 8(2), 99-112. doi: 10.12973/iji.2015.828a
- Zemach, D. E. & Rumisek, L.A. (2009). *Academic Writing from paragraph to essay* (10<sup>th</sup> ed.) Macmillan publishers, Edelvives: Spain. ISBN 1-4050-8606-8

## اثر استخدام استراتيجية اختبار المجموعة في تطوير كتابة الانشاء من قبل طلاب الجامعيين في المرحلة الثانية

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### المستخلص

في الكتابة الاكاديمية، يكافح طلاب الجامعة عندما يكتبون انشاء قصير في اللغة الانكليزية كلغة اجنبية. ان عملية الكتابة، مثلا العصف الذهني، الصياغة، والحصول على ردود الفعل والترويج، هي تقنيات تربوية التي تستخدم على نطاق واسع لتعليم كتابة الانشاء في تواصل اللغة الاجنبية في الإجراءات البرلمانية لتطوير مهارة الكتابة. ان المعلمين في كثير من الاحيان، يستخدمون العمل الجماعي التي يمكن للطلاب الاستفادة منها عندما يكون هناك تفاعل اجتماعي ايجابي . ان الطلاب يتعلمون افضل عندما ينضمون معا ويمكن ان يشاركوا بنقاط القوة والضعف للأفكار مع الآخرين بطريقة فعالة، حيث ان الطلاب يكملون مهمة الانشاء مع المساعدة والتي لربما تكون غير قادرة على القيام بها بشكل انفرادي. ومع ذلك، فإن بعض المعلمين يترددون في ادراج اختبار المجموعة التعاونية كأشطة في الكتابة في الصف. في هذه الدراسة، يسعى الباحثان الى استقصاء اثر اختبار المجموعة كاستراتيجية تقييم في تطوير كتابة الانشاء. ولتحقيق الهدف من هذه الدراسة، أُستخدِم الباحثان تصميم بحثي شبه تجريبي مع نوعين من الاختبارات (اختبار فردي واختبار المجموعة). وكشفت النتائج الى ان اختبار المجموعة توفر استراتيجية تقييم ذو تأثير جيد في تعزيز اداء الطلاب اثناء كتابة الانشاء ولها تأثير ايجابي على الاحتفاظ للمدى الطويل ويعزز من عملية التفكير وبالتالي يؤدي الى تطوير كتابة الانشاء.

الكلمات المفتاحية: اختبار المجموعة، اداء الطلاب، تطوير كتابة الانشاء