The Effects of the Clustering Pre-Writing Technique on Learner’s Paragraph Writing Achievement
The Case of Third Year Literary Classes at Badi Mekki Secondary School, Biskra
Les effets de la technique de pré-écriture de regroupement sur les performances d'écriture de paragraphe de l'apprenant
Le cas des classes littéraires de troisième année à l'école secondaire Badi Mekki, Biskra

* Leila LOUCIF
Batna 2 University (Algeria)
loucif_leila@yahoo.fr

Abstract
The current study investigates the effects of the clustering prewriting technique on improving students’ paragraph writing. The chief objective is to know whether the implementation of clustering technique as pre-writing strategy is more effective than the old fashioned techniques. A quasi-experimental research design was used with 53 students who were randomly assigned to control and experimental groups. Data were gathered through three stages namely pre-treatment, treatment and post-treatment. The scores from the writing performance tests were compared and significant differences were determined using ANOVA test. The findings evinced that post-test scores of the experimental group were higher than the pre-test scores in terms of relevance, coherence, the use of linguistic resources, creativity and vocabulary. This confirmed that there was a positive effect of using clustering technique on students’ writing achievement.

Keywords: Clustering Technique; Paragraph Writing; Third Year Literary Students of Badi Mekki Secondary School.

Résumé
La présente étude examine les effets de la technique de pré-écriture en grappes sur l’amélioration de la rédaction de paragraphes. L'objectif principal est de savoir si la mise en œuvre de la technique de classification en tant que stratégie de pré-écriture est plus efficace que les techniques traditionnelles. Un schéma de recherche quasi expérimental a été utilisé avec 53 étudiants assignés au hasard à des groupes de contrôle et expérimentaux. Les données ont été rassemblées en trois étapes, à savoir un prétraitement,
un traitement et un post-traitement. Les scores des tests de performance en écriture ont été comparés et les différences significatives ont été déterminées à l’aide du test ANOVA. Les résultats ont montré que les scores post-test du groupe expérimental étaient supérieurs aux scores pré-test en termes de pertinence, de cohérence, d'utilisation des ressources linguistiques, de créativité et de vocabulaire. Ceci a confirmé que l'utilisation de la technique de classification sur les résultats en écriture des élèves avait un effet positif.

**Mots clés:** Technique de regroupement; Écriture de paragraphe; Les étudiants de troisième année littéraires de lycée Badi Mekki.

I - Introduction

Despite the fact that writing plays a very crucial role in the academic and future professional success of students, it is often considered the greatest challenge to students and teachers in EFL classroom. Richards and Renandya (2002) state that writing is a complex skill that requires hard thinking as well as high cognitive abilities so as to cover all the stages of the writing process and reach the final step of publishing a readable and legible written product. In the same context, Langan (2008) argues that writing as a process entails four main stages of finding out the topic, developing supporting details, arranging them into a first draft, finally reviewing and editing the material.

Starting writing forms a huge problem for many students, especially young ones as this needs higher level skills of planning and organizing. According to D’Aoust (1986), prewriting activities are so important that they "generate ideas; they encourage a free flow of thoughts and help students to discover both what they want to say and how to say it on paper ".It is clear that using such activities and techniques during the first stage of the writing process has a great deal of benefits. They help writers come up with new ideas, facilitate thinking and making the process of planning for both the product and the process much easier to carry out.

Prewriting is classified into two stages: invention and arrangement activities. The first step includes brainstorming, freewriting, listing, clustering, questioning, interviewing and looping. They are used to generate ideas. Thus, students should apply various invention techniques and select what is convenient for them. Arrangement activities deal with organizing what have been come up with in the preceding stage. They incorporate graphic organizers,
webbing, concept mapping, flow charts, venn diagrams and others (Mogahed, 2013). Through this study, we try to examine the impact of clustering as one of those invention activities on students’ expository paragraph writing performance.

Based on the researcher’s short experience in teaching terminal classes, students always encounter several problems in terms of writing skill. However, getting ready to write and what to write about are often the first problems for students when they are asked to compose a piece of writing in English. It is noticed that all the students get blocked and share the feelings of fear and anxiety whenever they think of the writing assignment. Therefore, there is an urgent need to look for a prewriting technique that can help students overcome those problems and can enhance their writing abilities.

This research aims to examine the contribution of the CPWS to those students’ writing achievement and to determine the significant differences between the pre-writing scores and post-writing scores. It also seeks to test the following two null hypotheses: (1) there is no significant difference between pre-writing scores and post-writing scores; (2) there is no statistically significant difference between the two groups’ post-test achievements in terms of relevance, coherence, the use of linguistic resources, creativity and vocabulary. So, the researcher used an experimental method with third year literary classes at Badi Mekki Secondary School to validate the already stated hypotheses and the research questions.

As far as clustering as prewriting technique is concerned, many studies were carried out in this context by (Fajriyani, 2011; Inal, 2014; Maula, 2010; Styati, 2010 and others) using this strategy as a visual way that helps students to think on paper and to improve their writing performance.

Sugiarti (2012) investigated the effectiveness of clustering technique in teaching writing at the eighth grade of MTs Raudlatul Ulum. Sugiarti’s study aimed at finding out whether the use of clustering is effective for writing English descriptive texts. The researcher implemented an experimental research and used t-test as an inferential statistic instrument to state the significant difference between the means of the two groups. The results showed that clustering technique was successful in improving the students’ writing ability.
Hayati (2017) concentrated on the use of clustering technique to improve students’ achievement in writing recount text at MAS. PAB 1 Sampali. Data were gathered through the application of Classroom Action Research with 29 students. The findings revealed that a significant improvement in the students’ recount text writing was recorded.

Amaliah (2018) conducted a research entitled: "the use of clustering technique to improve students' writing skill on narrative text for the eighth grade students of SMP Nusantara Tuntang ". The main objective of this study was to examine whether the use of the prewriting technique of clustering could improve the students’ narrative text. A Classroom Action Research was applied to check in what ways clustering works best. The results demonstrated that the clustering technique can improve the students’ narrative writing.

To sum up, clustering as a prewriting strategy proved to enhance the learners’ writing skill.

II - Definition of Clustering

Clustering as a way to get ideas for your writing also named as diagramming, mapping or webbing (Langan, 2008; Nazario, Borchers, & Lewis, 2010). This concept was founded and named by Gabriele Rico in the 1970s. It is based on brain research and defined as "a method of prewriting that enables the writer to map out all of his or her thoughts on a particular subject and then to choose which ones to use." (Carr, 1986). Clustering is useful to plan the ideas for the assigned topic and to select the most relevant ones. Besides, Rico (1986) describes clustering "as a nonlinear brainstorming process that generates ideas, images, and feelings around a stimulus word until a pattern becomes discernible". It is clear that using the process of clustering involves the writer to move forwards and backwards so as to jot down everything comes across the mind, starting with a trigger which leads to produce several related ideas, words and facts.

III- Teaching Writing Using Clustering Technique

According to Rico (1986), there are a set of instructions that the teacher should provide to teach writing through clustering strategy. They are as follows:

1. Introduce the tool to students and show them its benefits to their way of writing.
2. On the board, write the topic inside a circle and ask students some questions to elicit as much ideas as possible and then collect cluster these ideas into a cluster.
3. Individually, ask students to cluster a second word. Announce them that time is limited to just 10 minutes for both clustering and writing the paragraph.
4. Ask them to entitle their paragraphs.

### IV- Method and Tools

#### IV.1 Participants

The respondents of the study were the whole number (53) of third year literary students at Badi Mekki secondary school, Zeribet El-Oued, Biskra. Of these 53 participants enrolled during 2018-2019 school year, the first class (28 students) was taken as the control group whereas the other class (25 students) was taken as the experimental group. They were randomly assigned to the experimental group, that was taught using the prewriting technique of clustering, and the control group who was instructed through the traditional teaching method.

#### IV.2 Research Design

In our study, data were collected through the quantitative method. It was typically based on a quasi experimental design to measure the impact of the independent variable (the clustering technique) on the dependent variable (paragraph writing). In this design, Tavakoli (2012) stated that the subjects cannot be assigned randomly, but the researcher makes comparisons between pretest and posttest scores of two groups that naturally occur before and after the treatment.

#### IV.3 Research Procedure

The experimental procedures of this research lasted for 8 weeks. It began in the month of October to November 2018 and it went through three stages. The pre treatment stage in which the participants of both groups were asked to write a paragraph about a given topic related to their annual curriculum. In the next stage, the researcher implemented the clustering technique to the experimental group participants for one month. Finally, a post writing test was administered to the control and experimental groups and the students’ written outputs were assessed, analyzed and discussed later on.

#### IV.4 Data Collection
In order to collect worthy information from the respondents, the researcher depends on the students’ pre and post writing tests of both control and experimental groups. These tests were assessed according to an adapted analytical scoring model proposed by Ministry of National Education (Zemali, 2017). It includes four criteria: relevance, coherence, use of linguistic resources and excellence (creativity and vocabulary wealth). Each criterion is scored out of five points. This assessment grid is shown in (appendix A).

**IV.5 Data Analysis**

After the researcher had finished collecting all the quantitative data from the participants’ pre and post tests, the researcher used descriptive statistics as mean and standard deviation as well as ANOVA test to check whether the means of the two groups are significantly different from each other and to decide whether to support or reject the null hypotheses.

**V- Results and Discussion**

**V.1 Results**

**V.1.a Writing Performance of Participants in Pre-test**

The following table shows the mean scores and standard deviation of the pretest of both groups to check whether they are different in terms of their writing performance before they receive the treatment.

**Table (1): Students’ Writing Performance in Pretest**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>25</td>
<td>7.06</td>
<td>3.31</td>
</tr>
<tr>
<td>Control Group</td>
<td>28</td>
<td>7.25</td>
<td>3.46</td>
</tr>
</tbody>
</table>

Based on the results obtained in table 1, the mean score of the control group (7.25) and the experimental group (7.06) are approximately the same in terms of their writing level respectively. Therefore, there is no significant difference between the two groups before the intervention has occurred.

**V.1.b Difference between the Pre and Post Writing Scores of the Respondents**

Table 2 below presents the results recorded by the two groups for both the pre and post tests as well as the difference between them.

**Table (2): The Difference between the Pre and Post Writing Scores of the Participants**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>25</td>
<td>7.06</td>
<td>7.25</td>
<td>0.19</td>
</tr>
<tr>
<td>Control Group</td>
<td>28</td>
<td>7.25</td>
<td>7.46</td>
<td>0.21</td>
</tr>
</tbody>
</table>
As shown in table 2 above, the experimental group recorded a significant increase in the means score (from 7.06 to 9.28), whereas the control group scored a slight increase in the post test with a mean of 7.84 compared to the pre test score with a mean of 7.25. A difference of 2.22 if compared to 0.59 of the control group asserts the impact of the clustering technique on the participants’ writing achievement. In sum, the null hypothesis which states that "there is no significant difference between pre-writing scores and post-writing scores" is rejected.

V.1.c Comparison the Two Groups Achievements

In addition to the descriptive statistics being discussed previously, table 3 displays the F value, the P value and the F critical value obtained from the comparison of the post-test mean scores of the experimental group with the control group at the level of relevance, coherence, use of linguistic resources, creativity and vocabulary.

Table (3): Comparison of the Two Groups Scores in Relevance, Coherence, Use of Linguistic Resources, Creativity and Vocabulary

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.2592</td>
<td>1</td>
<td>0.2592</td>
<td>5.98737758</td>
<td>0.00241659</td>
<td>1.68713387</td>
</tr>
<tr>
<td>Within Groups</td>
<td>0.9218</td>
<td>6</td>
<td>0.15363333</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.181</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As reflected in table 3, it shows that the P-value is much smaller than the α level (P= 0.00241659 < α = 0.05) and the F value is much higher than the F critical value (F= 5.98737758> F crit = 1.68713387). These findings reveal that there is a significant difference between the experimental group performance and that of the control group in all the tested aspects of writing. Therefore, this is something significant to reject the null hypothesis which indicates that
there is no statistically significant difference between the two groups’ post-test achievements in terms of relevance, coherence, the use of linguistic resources, creativity and vocabulary. In short, the exposure of the participants to the clustering technique enabled them to acquire a varied bank of words, created new ideas and organized them logically.

V.2 Discussion

This study seeks to explore the effects of clustering as prewriting strategy on the Algerian EFL learners’ paragraph writing. The obtained results unveiled that using this technique during the prewriting stage helps students to improve their writing in relevance, coherence, the use of linguistic resources, creativity and vocabulary. This is consistent with what researchers (Fitriani, 2018; Putri, 2011) previously reached in their studies. They found that clustering technique had a powerful effect on students’ writing ability. Hence, applying this prewriting technique get learners engaged in the assigned task. They produce ideas with correct use of grammar and mechanics, connect between them and organize these ideas into a well-written product. In this sense, the researcher rejects the suggested null hypotheses that the use of clustering technique has no positive impact on the students’ paragraph writing.

VI- Conclusion

The research findings revealed that clustering technique exerted a positive impact on learners’ paragraph writing achievement in terms of relevance, coherence, the use of linguistic resources, creativity and vocabulary. On the basis of the conclusion, the following recommendations are hereby presented.

Clustering as prewriting strategy should be used to motivate visual learners get started to write easily. Not only can it be used to generate plenty of ideas and thoughts through a stimulus word, but also to organize them in well worded texts. Further, it should be applied to show connections between the ideas and to decrease broad topics into more specific ones.

In writing classrooms, EFL teachers should implement clustering technique to help students approach the topic by activating their prior knowledge and associating it with the new one. This, of course, facilitates thinking, promotes self-regulation and confidence in English writing which will be a less demanding and challenging task. They should also apply clustering for the sake of assessing the
teaching and learning process. They encourage the students to be active, interact with one another and function independently.

Owing to the limited experimental time and small sample size, this research is only limited to the writing performance of third year literary classes at Badi Mekki Secondary School, Biskra using a quasi-experimental research design. Further investigations should be conducted to find out the effects of clustering as prewriting strategy on learners’ writing performance, attitude, and personal variables. Since this work is only restricted to the prewriting stage, looking into the efficiency of other writing strategies concerning the other stages of the writing process becomes a necessity so as to help learners attain an adequate level in this skill.

Appendices
Appendix A: Assessment Grid

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Scores</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| 1-Relevance | 5 | Testee’s production aligns with the situation requirements: 
* format: letter / e-mail / invitation / instructions / newspaper article 
* objective: to inform / to describe / to complain / to sensitise / to advise / to warn … 
* target audience: fellow citizens / consumers 
* target language: functional language and vocabulary related to the topic. |
| 2-Coherence | 5 | - Use of meaningful sentences. 
- Use of appropriate connectors, time indicators etc. 
- Logical organisation and development of ideas. |
| 3-Use of Linguistic Resources | 5 | - Correct use of grammar: tenses, word order, subject-verb agreement etc. 
- Use of simple, compound and complex sentences. 
- Correct use of mechanics: spelling, capitalization and punctuation. |
| 4-Excellence (creativity+ vocabulary wealth) | 5 | - Originality and creativity. 
- New ideas, varied vocabulary items, absence of redundancy. |

Adapted from (Zemali, 2017)

Bibliography


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