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**The Effectiveness of the Jigsaw Technique in Enhancing English as a Foreign
Language Learners' Written Production:
The case of second year students of English at the University of Biskra**

Dissertation Submitted in Fulfilment of the Requirements for the Degree of Master in
Sciences of Languages.

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Dedication

This dissertation is lovingly dedicated to:

My role model, my mother, Reguia

My brother, Abdel-hakim, the one who I can count on no matter what

My father, my beautiful sisters and my brother

My dear uncle Rouag and his lovely family

My sweet grandparents and my dear aunty Nora

The amazing friends I have,

Thank you for your prayers, love and support.

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Abstract

This study sets out to present a study of the effectiveness of the jigsaw model as a cooperative language learning technique (CLL) on second year EFL students' written competencies. Another equally fundamental part of this research involves collecting teachers' insights about the importance of the jigsaw technique in particular, and CLL techniques in general, on the development of the writing skill. The dissertation aims to provide an alternative teaching method that is based on the learners' centred classroom for EFL writing classes. It is built upon the hypothesis that if students are learning through an organised jigsaw classroom, their writing level will improve and their performances will be enhanced. In its theoretical part, the study reviewed the literature on the writing skill; it also tackled different concepts about CLL and the jigsaw technique. Concerning the fieldwork, treatment was conducted on nine EFL students from Biskra University following the structure of one-group pre-test-posttest design. A comparison between students' paragraphs revealed that students wrote better paragraphs in the post-test compared to the ones of the pre-test. The improvements included all the aspects of writing as well, demonstrating that the jigsaw classroom has positive effects on writing. On the other hand, the data obtained from the questionnaire revealed that teachers are aware of the importance of CLL in the writing class; however, most of the teachers have been found to not know about the jigsaw technique. Moreover, they seem to neglect to organise the students' groups according to the basic elements of any of the CLL techniques. The study concludes with some recommendations for further researches, and limitations that faced and affected the application and results of the study.

Key Terms: Jigsaw Technique- Cooperative Language Learning

List of Abbreviation

CL: Cooperative Learning

CLL: Cooperative Language Learning

CLT: Communicative Learning Teaching

EFL: English as a Foreign Language

ESL: English as a Second Language

ESP: English for Specific Purposes

Etc: et cetera (and other similar things)

GE: General English

GI: Group Investigation

I.e.: id est (that is)

SPSS: Statistical Package for Social Sciences

STAD: Student-Teams-Achievement Divisions

STL: Student Team Learning

TGT: Teams-Games-Tournaments

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General Introduction

Writing is one of the four language skills developed by teachers in English as a Foreign Language (EFL) and English as a Second Language (ESL) classrooms besides listening, speaking and reading. Those four skills have to be maintained by students to, first, to communicate the language effectively and second, to accomplish the academic achievement. Writing is considered the most difficult task among the rest. The problem in it lies not only in organising ideas and thoughts but also in how to translate them into comprehensive readable sentences and texts without melding in structures and grammatical rules of the mother tongue or the foreign language. The process of writing requires the attainment of several other learning aspects, such as vocabulary, spelling, punctuation, sentence structure, type, etc. Moreover, EFL learners need to have a rich amount of ideas and cultural knowledge to proceed in writing.

EFL teachers when in classrooms often aim to set different learning strategies to meet the many diverse learning styles students do have. Therefore, many techniques and methods are applied each to reach a specific purpose in learning. Cooperative learning is one of the methods teachers adopt. It is a teaching strategy in which learners should collaborate to achieve a particular goal in learning. There are several Cooperative Language Learning techniques, for example, STAD (Students Teams Achievement Division), GI (Group Investigation), TGT (Teams-Games-Tournaments), and the Jigsaw technique. This latter is presented in this study, proposed as an alternative technique, which can promote cooperative and group activities in classrooms.

1. Statement of the problem

EFL students usually encounter difficulties when writing due to different reasons; the teaching procedure implemented focuses on merely delivering materials; thus, the students' productive skills are neglected. Further, Teachers' poor management and preparation for over-crowded classrooms during an insufficient time will affect negatively the students attainment and assessment. In addition, writing is purported as the most intellectually complex and demanding skill among the four skills. It also plays a vital role in assessing the students' proficiency in the learning process. Again, EFL students have problems when starting to write due to the lack of ideas. Accordingly, providing an alternative technique to overcome those obstacles is a must in order to maintain the teaching-learning success. Therefore, the jigsaw technique is introduced as one of many CLL techniques in this study.

2. Research Questions

Based on what has been stated in the statement of the problem, the research aims to answer the questions, which are pointed as follows:

- Are students motivated to work in cooperative settings rather than individually?
- What are the teachers' interpretation, preferences, and attitudes towards the use of CLL in the writing class?
- Does the jigsaw as a CLL technique affect the written production of EFL learners?

3. Research Hypotheses

- Teachers are aware of the different CLL techniques and their positive role in the classroom.
- The students are motivated to work in cooperative settings rather than working individually.
- The students' written proficiency will increase when implementing a well-structured Jigsaw technique.

4. Research Aims

The researcher is willing to investigate the effectiveness of the jigsaw technique on the written achievement of second-year students of English at Biskra University. We aim, in particular, to examine whether or not the use of the jigsaw as a CLL technique will have a positive impact on students when writing academic paragraphs. Moreover, the study attempts to get insights of teachers on the usage of the jigsaw and CLL techniques within the context under study.

5. Significance of the Research

This study is expected to help both teachers and learners to find an alternative effective technique in writing in EFL classrooms. The students will be motivated to working in teams to achieve a particular goal in learning since they will be the centre of the course. They also will be working on learning by themselves and later teaching their groupmates. The teachers' role in student-centred classrooms will have much more importance not the opposite, since teachers will be creating the teacher paradox by becoming an organiser, manager, motivator, etc.

6. The Research Methodology

6.1. Research approach

The study is based on the principles of the quantitative research approach. The researcher will discuss and interpret the numerical data gathered through the pre and post-tests scores, and the questionnaire of teachers.

6.2. Research design

The researcher opted to apply the pre-experimental design as a way to test the hypothesis stated before. It is used for proven causal relationship between the two variables under study. First, one group pretest-posttest design was used to compare the effectiveness of

the jigsaw technique before and after its implementation. Second, the research assumed a case study dimension because it used a small number of conveniently selected students.

6.3. Data collection method

In addition to the pre and post-tests' results that are used to investigate the main hypothesis of the study, which is the effect of the jigsaw technique on the writing productivity of EFL learners, the researcher designed a questionnaire for the "Written Expression" course teachers at the section of English at Biskra University. Teachers of this course are acquainted with their students' writing levels as well as the different teaching methods. Their experiences and attitudes towards the implementation of the jigsaw technique will prove or disprove the first hypothesis. Moreover, the structured questionnaire is composed of mostly close-ended questions, which they can generate frequencies of responses that will be statistically analysed. It is used to measure abstract and self-reported information such as the attitudes towards the application of the Jigsaw technique.

6.4. Population and Sampling

The subjects targeted are the second-year students of English at Biskra University. The total number of students at this level is 393 students subdivided into eight groups of 42 students per group. Due to time constraints and the large population, the sample chosen was a small number of conveniently selected nine students from group three. At this level, students have already learnt how to develop academic paragraphs. The group of participants was non-randomly assigned; but rather the convenient strategy was applied to decide the number of participants in the group.

7. The structure of the dissertation

In addition to the general introduction and conclusion, the proposed research is comprised of three chapters. The first and second chapters will be devoted to the theoretical

part, whereas the third chapter is the practical part of the study. Also, the study devotes a section to the pedagogical implementations, which take the form of several recommendations besides the study's limitations.

7.1. Chapter one

The first chapter provides an understanding of the dependent variable. It explores the nature of the writing skill, its importance, definitions, the purpose and problems of writing, approaches to teaching writing, the process of writing, and methods and procedures of assessing writing.

7.2. Chapter two

The second chapter will first provide general ideas of CLL techniques, definitions, and its basic elements. The chapter continues to outline deeper insights into the jigsaw technique, the historical background, definitions, characteristics, deviations of the technique, and its advantages and disadvantages in an EFL classroom.

7.3. Chapter three

The last chapter deals with the practical part of the study. It covers the experiment, the data analysis procedures, and the summary of the results obtained in this research. It also provides a detailed analysis of the teachers' questionnaire.

Chapter One: The Writing Skill

Introduction

This chapter will present the writing skill, beginning with different definitions, the purpose and the problem of writing. Moreover, the study continues to present different concepts related to writing such as aspects and a selection of approaches to teaching writing. The research' essence is writing academic paragraphs; therefore, we will include general ideas of academic writing and a specific presentation of one of its elements, paragraph writing. Eventually, this chapter will conclude with writing assessment procedures.

1. Definitions of Writing

Writing is a group of letters or symbols written or marked on a surface as a means of communicating ideas (Writing, 2003). Different dictionaries define “writing” as placing words, expressions and sentences within a piece of paper. However, several scholars claim that “writing” is not simply producing words in a readable and understandable form but rather a skill that requires several other conditions to be achieved. Heaton (1975) suggests that in order to write an effective piece of writing, five components are requisite. Those are, the ability to write correct and appropriate sentences, the mastery of the mechanicals skills, creative analysis of content, stylistic skills .i.e., the mastery of sentence and paragraph structure, and the judgmental skills from identifying the purpose and the audience to the ability to filter information.

In addition, Nunan defines writing as “both a physical and a mental act” (2003, p. 88). The physical aspect refers to the action of writing whether by hand or by typing into digital appliances. On the other hand, the mental act is the processing of ideas, information, organisation and the words chosen when writing. He continues to determine the purpose of writing as “is both to express and impress” (Nunan, 2003, p. 88). The writers consider writing as a way to express their ideas and opinions. They also take into consideration their audience who are reading for a certain purpose.

Another claim by Nunan is that writing is a productive skill. It is also a visual mode of communication along with speaking (2015). Thus, being able to write is not only for the sake of constructing and mastering the skill but also for the sake of communicating through it. As stated by Tribble “Writing works as a type of discourse and a way of creating meaningful interaction between the writer and a possible reader” (1996, p. 10). In pedagogical settings, Harmer (2004) asserts how this skill is significant in language classes and how learners have to do many different types of writing throughout their learning phase. However, it appears to have less importance except in doing exams and evaluation. Thus, more time and teaching sessions should be devoted to this skill.

2. Purpose of writing

Writers focus on the purpose of writing throughout its different stages. In addition, by knowing that a specific audience will read their writings will not only affect the type of writing they use but also the information they report in the text. Harmer states “Authors have to focus on the purpose of their writing (amongst other consideration) since this will affect what language they choose and how they use it” (2004, p. 15).

Wasko (2012) classifies four basic purposes of writing:

- Narrative writing: it refers to storytelling whether fictitious or factual. Writers aim to narrate events. Short stories, novels, personal narratives, anecdotes, and biographies are all examples of narrative writing.
- Descriptive writing: it is the depiction of things around, such as objects, places, people....the writer ensures that the picture is clearly visualised in the reader’s mind.
- Expository writing: explanation, investigation, illustration, or clarifications are all words with the same meaning to the word exposition. Encyclopedia entries, news reports, instruction manuals, informative essays and research papers are types of writing with an expository purpose.

- Persuasive writing: writers opt for this type of writing when trying to convince others with opposite or neutral opinions to accept and adopt the writer's point of view.

Axelord and Cooper (1985) give a more specific categorization of writing purposes. They include the expressive purpose, which is clarifying a thought or a feeling. Evaluative purpose refers to giving opinions in a judgemental way about a person, product, thing, policy... It also comprises the meta-linguistic purpose, which is giving opinions on a piece of writing. The poetic purpose focuses on the language, the usage of its elements and most importantly the message itself. The entertaining purpose usually tackles gossip and jokes. These two latter go within the ambit of literary purpose, which is used to entertain and to give aesthetic pleasure.

3. Problems of Writing

Writers may have problems when start writing. Harmer (2004) states that some writers may have a fear of being unfamiliar with what they will write, unable to finish the task successfully, or judged by their styles or ideas. Others may be apathetic to write or have anxieties about their handwriting. On the other hand, Rozakis (2003) argues that not only the writer's attitudes towards writing form the problem in writing but also the errors made when producing a piece of writing. He explains twenty-five types of errors writers make under the title of "the 25 Top Writing Errors" (Rozakis, 2003, p. 78). He classifies those under six major points as follows:

1. Grammar and usage (lack of clarity, redundancy, problems with modifiers, subject-verb agreement, tenses...);
2. Sentences (fragments and run-ons);
3. Spelling (incorrect plurals, missing or extra letters, confusing words...);
4. Punctuation (missing, overusing and misusing of punctuation marks);
5. Capitalisation (in proper nouns and titles);
6. Proofreading (missing words).

4. Writing Aspects

Knowing how to write appropriately and effectively is an essence of mastering the language. Wherefore learners in EFL and ESL classrooms have to comprehend the different writing aspects that lead to successful writing. Teachers as well have to pick, among the different teaching approaches, the one that serves the teaching-learning programme. Moreover, they have to find appropriate procedures, such as providing activities in accordance with the targeted aspect, to overcome the errors learners may make and problems they may face in developing the writing act. Therefore, Writing is not judged only on content but also on several aspects, which are vocabulary, spelling, punctuation, handwriting and grammar. Harmer (2004) refers to them as the “Nuts and Bolts” of the writing skill.

4.1. Vocabulary

Dictionaries concur on the definition of vocabulary as a set of lexemes, including single words, compound words and idioms. Accordingly, Nation and Hunston (2013) say that vocabularies are merely words and multiword units such as a group of words that commonly occur together. Nation (2009) claims that both intensive and extensive reading can boost learners’ vocabulary perceptiveness. After identifying learners vocabulary levels, teachers assign readings suitably. Afterwards, several principles are taken such as paying sustained attention to high-frequency words (words from the first 2,000 and Academic Word List), less attention or ignoring low-frequency words. Additionally, repeated attention over a long period should be devoted to vocabulary learning strategies of guessing from context, analysing words using word parts, and dictionary usage.

4.2. Grammar

It is a description of the structure of a language and how linguistic units such as words and phrases are combined to produce well-constructed sentences, paragraphs and texts with regarding the system of the language. It may include a description of the sounds of a

language. The focus on grammar can be appropriate at the pre-writing stage (Richards & Schmidt, 2002).

4.3. Handwriting

Harmer claims that despite the fact that the use of technology to write has enlarged within the past years, writing by hand still exists with the same importance and necessity (2004). At the local level, evaluations are done through pen and paper. Therefore, EFL learners have to know how to write the English letters, its lower and upper cases, the size, the shape, the positioning of these letters but most importantly writing in a readable manner. The role of the teacher lies in demonstrating the way of writing by many means such as using boards to illustrate the written form or the use of visuals like pictures and videos.

4.4. Spelling

According to Harmer (2004), English spelling is complex due to the lack of spelling-sounds correspondence. Consequently, learners find it difficult to link the sounds to the right spelling. Indeed, English spelling rules have exceptions that make writing challenging. However, they are applied to a small number of individual words following a regular clear way. Harmer (2004) also suggests “extensive reading” as a way of avoiding misspelling in writing. Teachers can motivate their learners to read continually to know and remember the correct spelling of words.

4.5. Punctuation

Houston (2004) defines the term punctuation as the use of graphic marks such as commas, semicolons, dashes and periods to define meaning in written sentences or to represent spoken utterances in a piece of writing. Misusing or neglecting the use of these marks will create ambiguity in comprehending the written text. It may also question the value of the written work.

5. Approaches to Teaching Writing

Teaching learners to write is a crucial goal among the set of the goals of EFL instruction. Thus, teachers must reexamine the approaches at the beginning stages of the learning phase following their teaching styles, or learners and their learning styles. Teachers, depending on how they think writing is learned and what learners have to deal with when producing written texts, adopt the most appropriate approach to teach writing. Even though the only three approaches interested in the present study will be discussed, scholars developed several other approaches to teach writing in EFL classrooms. Besides, it is rare to find classes where teachers exclude all approaches but one because these approaches overlap, and techniques drawn from other approaches are used (Raimes, 1983)

5.1. The Product Approach

It focuses on the final draft as its name indicates. It encourages analyzing students' products at the end of the writing task. This will make teachers spot the difficulties students have and consequently provide the alternative to overcome those issues (Ghufron, 2016). The stages of the product approach range between three and four according to different scholars. Badger and White (2000) highlight four stages of the product approach: familiarisation, controlled writing, guided writing, and free writing. In the first step, familiarisation, the teacher makes the learners aware of certain features of particular text such as grammar, content, sentence organization and rhetorical patterns. Afterwards, the teacher controls the learners' learning activity by giving exercises on those features. In the next stage, guided writing, the learners write a text which is similar to the model text. The last stage is where learners freely write another similar text by themselves. Similarly, White (1987) settles with only three stages: study the model, manipulate elements and produce a parallel text.

“The imitation of input”, which is the core of the approach, raised some critical ideas against the approach. Thulasi, Ismail and Ben Salam (2014) contend that the concept of

imitation focuses on the form but neglects the content; consequently, learners become passive and copy without performing in their styles. In the 1970s, this idea was the onset of the process writing approach in language classrooms with the attention to content prior to forming (Thulasi, Ismail, & Ben Salam, 2014).

5.2. The Process Approach

In contrast with the product approach, which focuses on the error-free final product; the process approach teaches the steps the writer takes. “The process approach to writing teaching emphasizes the writer as an independent producer of texts, but it goes further to address the issue of what teachers should do to help learners perform a writing task” (Hyland, 2003, p. 10). Various outlines and drafts towards the end draft are equally important as the final product.

The process approach is cyclical. In other words, the stages of producing a final draft are not sequenced in turn, but they are interactively related to each other (Harmer, 2001). Correspondingly, Tribble(1996) argues that writing skill is a recursive process. This explains the dynamism and the unpredictability of the skill. Furthermore, he presents a model of writing called “Tribble’s model of writing” portrayed in the figure below:

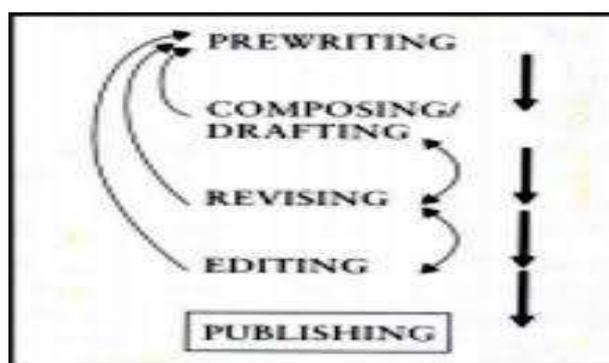


Figure 1: Tribble’s Model of Writing (Jungnan, 2011, p. 17)

Badger and White presents a clear definition of the process approach;

A typical prewriting activity in the process approach would be for learners to brainstorm on the topic of houses. At the composing/drafting stage, they

would select and structure the result of the brainstorming session to provide a plan of a description of a house. This would guide the first draft of a description of a particular house. After discussion, learners might revise the first draft working individually or in groups. Finally, the learners would edit or proof-read the text (2000, p. 154).

5.3. The Genre Approach

The genre approach is concerned with the study of particular genres for specific purposes. It is appropriate for learners in ESP (English for Specific Purposes) but it is highly recommended and useful for learners of GE (General English) (Harmer, 2001). When applying the genre approach, teachers provide learners with typical models of the genre targeted before they begin composing theirs. When doing so, learners will comprehend the specific language used in that type of genre. They will later build their writings upon the rules of the sample model. This makes the genre approach a continuum of the product approach. The two share other several similarities such as “predominantly linguistic” (Badger & White, 2000, p. 155). However, they differ because, in the genre approach, different types of text are used to serve different purposes. Swales explains this notion by:

A genre comprises a class of communicative events, the members of which share some set of communicative purposes, these purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influence constrains choices of content and style. (1990, p. 58)

To sum up, the genre-based approach emphasizes the knowledge of language and form of different genres that are tied closely to a social purpose.

6. Academic Writing

The word academic writing refers to special registers and genres of the language used in the learning of academic subject matter in formal schooling contexts. Hartley (2008) elucidates that academic writings, as the name implies, are the kind of writing that learners are required to do in college or university. They refer to certain assignments learners aim to accomplish in their studies such as research papers, articles, examination sheets... what differentiate academic writing from other the non-academic ones can be explained by its particular audience, tone, and purpose. When learners write, they first have to consider the audience addressed, which are professors or instructors. Second, learners need to consider the tone of their writing that is supposed to be formal and serious. The tone of a piece of writing is revealed by the choice of words and grammatical structures. Finally, learners have to determine the purpose of any piece of academic writing because it decides the organisational pattern to follow.

According to Jordan (1999), the main features of academic writing involve first; the formality in the style. This demonstrates that the language used should be objective and impersonal such as the avoidance of personal pronouns, phrases and passive verb forms. Furthermore, cautious language is frequently used in reporting research and making daims. In addition, vocabulary appropriate for particular academic contexts is used. Moreover, the structure of the writing will vary according to the particular type of writing, for example, paragraph and its different patterns. Lastly, academic writing often contains references to other writers' publications where writers have to acknowledge the source of their information as a way to reach the academic criteria.

7. Writing an Academic Paragraph

The paragraph is a composition of sentences, which develop one central idea. The number of sentences that formulates the paragraph cannot be definite but it has to be long enough to

develop the main idea of the paragraph effectively and clearly. An academic paragraph has a set of features including the structure, unity, coherence and the type of supporting sentences.

7.1. Paragraph structure

Usually, academic paragraphs have three main components:

7.1.1. Topic sentence

A complete sentence that illustrates the main idea of the paragraph. It is usually placed at the beginning of the paragraph, which is the clearest manner. However, it can be reported at the end or even the middle of the paragraph. Sometimes writers do not include one, and by that, it becomes implied or suggested. The topic sentence comprises two main parts; the topic and the controlling idea. The latter is the limiting statement of what the topic is going to be about.

7.1.2. Supporting sentences

They develop the topic sentence by providing more information about the main idea of the paragraph. These sentences have to relate to the topic; moreover, they have to be thoroughly detailed by presenting facts, examples and statistics.

7.1.3. Concluding sentence

It is the sentence that signals the end of the paragraph. It usually summarises or restates the topic sentence. Because writers attempt to solidify the main idea in the readers' minds and leave them with the most important information, the concluding statement is placed at the end of the paragraph. Other writers may add a comment on the topic in certain patterns of the paragraph.

7.2. Unity and coherence

Those are two important elements of an academic paragraph. Unity, also called cohesion, refers to the oneness of the composition. In other words, the paragraph has to discuss only one main idea. Furthermore, the supporting sentences should be directly related

to the topic sentence. Another component of the academic paragraph is coherence that means that the parts of the paragraph have to hold together in a logical order and in a smooth way. The readers have to feel the flow in the ideas as well as the gradual progression in sentences. There are several techniques to attain the unity and cohesion of the paragraph:

- ❖ Repetition of key nouns: the frequent repetition of key nouns ensures the cohesion in a paragraph.
- ❖ Key nouns substitute: sometimes the over repetition of key nouns will dull the value of the paragraph. Thus, the writer substitutes them with synonyms or expressions with the same meaning.
- ❖ Consistent pronouns: to avoid wordiness, writers have to choose the pronouns that match the same person and number.
- ❖ Transitional signals: they are expressions like coordinators, subordinators, nouns, adjectives, prepositions, verbs and adverbs that show how a new sentence relates to the preceding one.
- ❖ Logical order: writers have to arrange their paragraphs in a logical order according to the purpose and the topic itself. There are several types of order in English like the chronological order, the order of importance, and the logical division of ideas.

7.3. Supporting details

Once the writers decided a viable topic sentence; next, they have to develop the supporting sentences. This includes facts, statistics, and quotations. However, EFL learners are not required to fulfil all the mentioned criteria in evaluations and exams due to the limiting amount of time; instead, they use their knowledge and views to treat the topic. Nevertheless, for home assignments and research papers, it is highly required to follow the academic standards of writing paragraphs.

7.3.1. Facts

They are commonly objective truthful information in contrary with opinions that are subjective and probably erroneous. Both can be used as supporting sentences; however, opinions have to be proved by facts.

7.3.2. Citing

To attain the gist of academic writing, learners have to claim the sources of the information they insert in their writings unless it was a personal experience or obvious facts. There are three main strategies to cite:

7.3.2.1. Quotations

It refers to the act of copying the same written or spoken words of other reliable experts of the topic. It can take two forms: direct and indirect quotation. They differ in terms of the number of words, punctuation technique and the tying formula on a computer platform.

7.3.2.2. Paraphrase

It is the restatement of the meaning of the words of an outside source using other words. Moreover, it is almost as long as the original text. Writers tend to use their own words and sentence structure when they feel the need to change the original words to clarify or simplify the content to support their writings.

7.3.2.3. Summary

It is the same as a paraphrase, which is borrowing information from an outside source. Except for the length, summaries are shorter than the original text. When summarising, writers keep the main idea of the source only, and they drop all the examples and details. They also make the connection between the paragraph and the reported ideas in a clear way besides documenting the source for ethical issues.

7.3.3. Statistics

They form a credible way of supporting the paragraph, and they usually report numerical information. Like citing, including statistics requires the acknowledgement of the source.

8. Assessing Writing

To assess learners' writings, teachers measure the performance and the progress learners make. They also try to diagnose the problems their students have and provide them with useful feedback. The assessment can take several formats, for example, essay-paragraph questions, guided writing, punctuation, summary, note-taking, dictation...learners are expecting to receive feedback on what they are writing or what they have written. This feedback will show learners the mistakes and errors they made. Therefore, they will revise and avoid them in their future writings. However, a careful correction plan has to be applied by teachers, since it will either motivate learners and improve their writing levels or be counterproductive. Thus, Harmer (2004) introduces several methods to maximise the benefits of writing correction.

- Selective correction: avoid correcting mistakes but correct serious repeated errors. Teachers decide in advance what to correct and before applying the assessment method, they need to apprise learners of the method followed so learners will focus more on the language aspect being addressed.
- Using marking scales: before assessing learners' written production, teachers set a marking scale to follow. For example, when assessing a paragraph, teachers may follow a specific kind of rubrics i.e., out of 20, 2 points are dedicated for writing an interesting original topic sentence, 5 are for the supporting sentences with clear related concrete ideas, 2 for including one focused interesting concluding sentence.

The rest of the points can be divided among the right consistent usage of the language mechanical components, clear unity, logical coherence and the appropriate style.

- Using correction symbols: those are symbols used by teachers in order to ease the assessment procedure and avoid the profusion in the correcting notes. They can be placed above, under or next to the mistake noticed. This is a type of controlled assessment where learners are required to adjust their errors by themselves. There are many forms of correcting symbols that teachers may apply. Hamp-Lyons & Heasley (2006, p. 210) provide a correction key that teachers may follow when correcting paragraphs:

S =spelling

c=concord (agreement: subject and verb)

S/p = singular/plural

w/o = word order

T = verb tense

V = vocabulary, wrong word or usage

App = inappropriate style or register

P = punctuation (including capital letters)

Ir = irrelevant information

?m = meaning not clear

A = word(s) missing

WW=wrong word

- Reformulation: in reformulation or direct correction, the learners' errors are identified in the paper, and they are corrected by the teacher. This permits the learner to spot the problem and how it should be fixed.

- Using relevant materials: using this method allows the learners to investigate further sources such as dictionaries and language books. It also allows them to learn enormously about the error they made and thus they will have a better understanding of the language aspects.
- Face to face remedy: some errors are hard to correct in a small space of a piece of paper. In addition, teachers sometimes cannot decide the type of error because of the way learners wrote it. In such cases, teachers suggest a meeting with the writer to clarify the problem made, or to investigate the actual intention of the learner.
- Remedial teaching: when teachers notice that many learners do the same error, they deal with the problem collectively. In other words, teachers dedicate a specific amount of time to discuss that error and the ways to correct it in front of all students.

Despite all of the above methods that address the errors of students, teachers can add further comments. Those comments can be encouragement statements or suggestions for students to elevate their writing level.

Conclusion

On this chapter, we have presented a theoretical background about the writing skill. We conclude that writing is a complex issue where both teachers and learners should cooperate to create a successful teaching-learning atmosphere. On one hand, teachers have to do a selection of what approach to adopt besides deciding the assessment technique that best serves the learning task. On the other hand, learners should know the basics of writing especially academically. They also need to work on enhancing the different aspects and components of the written work.

Chapter Two: The Jigsaw Technique and Cooperative Language Learning

Introduction

This chapter first introduces general ideas about CL, its history, definitions, and a summary of different CL techniques. Then, it continues to highlight the gist of the chapter, the jigsaw technique. First, it presents a historical background of the technique including its origins, the originator, and its first application. Second, it provides definitions of the concept from several points of view. Afterwards, the chapter displays the basic procedures in a jigsaw classroom followed by the different deviations from the basic jigsaw. Next, it identifies some of the problems and troubleshooting of a CL and a jigsaw classroom in particular. Finally, the chapter ends with a demonstration of the positive effects of the jigsaw technique in EFL classrooms. It also presents some distinctive characteristics of the jigsaw as part of CLL.

1. An Overview of Cooperative Learning

Since current trends in education show a shift from “the traditional teacher-centred approach to a student-centred approach” (Kennedy, Hyland, & Ryan, 2007, p. 3), the emphasis nowadays is upon the role of the learner in the process of learning without cancelling the role of the teacher who is rather seen as a facilitator, a monitor, a guider... Consequently, effective CL moves to the forefront within the field due to its nature, which is task-based learning that focuses on learners’ engagement.

Strother (1990) defines CL as an instructional method in which students join in small, heterogeneous groups to help their own and each other to learn and complete a given task. Likewise, Bramlett (1994) argues that CL occurs when students work together on a material presented by the teacher in order to master the academic content of a subject. Thus, the term CL refers to the structure of interaction used to facilitate the accomplishment of a product in a classroom by groups who share the same academic goals.

CL has been advocated and used throughout history. Johnson, Johnson, and Smith (2015) report, thousands of years ago, Socrates taught students in small groups through

engaging them in dialogues in his famous “art of discourse”. In addition to Quintilian who claimed that students could benefit from teaching one another, one of the valuable quotes that promote group work was the Roman philosopher Seneca’ quote; “When you teach, you learn twice”. Later, in the early twentieth, social and pedagogical theorists, philosophers and psychologists developed a CL theory after discovering the effectiveness of group work when compared to individual work on the same tasks.

Such scholars were John Dewey who focused on the social aspect of learning and the necessity to promote democratic education through forming groups. Others like Kurt Lewin and Morton Deutch emphasised positive social interdependence, the idea that the students are responsible for their own learning as well for the learning of other members in the group (Slavin, 1985). Thus, CL has been part of the educational realm from ancient civilisations to today’s contemporary schools. Since the 1970s, researchers have started developing different cooperation techniques based on different concepts and objects.

2. Cooperative Learning techniques

CL has emerged as an alternative to traditional instruction where learners were passive receivers and work individually in a competitive atmosphere. Several structured and systematic CL techniques were developed as tactics to organise the group work in classrooms. Some techniques were further developed to introduce new ones with a slight difference in terms of the structure and assessment procedures. Slavin (1985) identifies two categories of CL: Structured Team Learning and Informal Group Learning techniques; each consists of several techniques. The present study addresses the most researched techniques in the field of foreign language learning.

2.1. Structured Team Learning Techniques

The first category of CL involves providing rewards to teams based on the learning progress of their members. These techniques are more oriented toward content acquisition.

2.1.1. Student Team Learning (STL) techniques

They are CL techniques that were developed and researched at the University of Johns Hopkins. The most distinguishable feature of STL is to make students learn something as a team rather than doing a task. Teams-Games-Tournament (TGT) and Teams-Achievement Divisions (STAD) are two of the most frequently used techniques as they can be applied to most subjects and grade levels. Like any other techniques in CL, students are placed in teams with mixed abilities to compete in a game. Several studies on STL have found positive effects on achievement in a wide variety of subjects including foreign and second languages.

2.1.1.1. Teams-Achievement Divisions (STAD)

The technique follows a cycle of activities that starts with assigning teams of 3 to 4 students; the teacher presents a lesson in which each team ensures that all its members have mastered. Afterwards, all students take individual quizzes on the material learnt. Finally, students' individual scores are compared to their past averages; improvements will be observed and points are formed accordingly. These points are summed into team points that will decide rewards.

2.1.1.2. Teams-Games-Tournament (TGT)

TGT is identical to STAD except in using weekly academic game tournaments instead of quizzes. In other words, representatives of each team compete to contribute points to their respective team score. Distinctive features of TGT are fairness and the equal opportunities created for every student to succeed despite their levels (Slavin, 1995). David DeVries, Keith Edwards and Robert Slavin (1994) developed both TGT and STAD.

2.2. Informal Group Learning techniques

It includes techniques that focus on developing facts and skills and improving discussion rather than learning well-specified content. In other words, the interpersonal skills are learnt through involving students each with their unique contribution to the group work. It

includes in general, Learning Together, Group-Investigation (G-I), and Jigsaw on which the present study is based.

2.2.1. Learning Together

Learning Together model of CL was developed by David and Roger Johnson at the University of Minnesota (Johnson & Johnson, 1999). Students are expected to form groups and try to work on a single assignment sheet on which they get praise, recognition, rewards... As other technique within this category, discussion and group activities are key features for the successfulness of the procedure.

2.2.2. Group-Investigation

Shlomo Sharan and Hertz-Lazarowitz have presented the G-I (1980). Basically, students choose their own subtopics to be “investigated”. They also choose which group they will be in. Meanwhile, teachers intervene to confirm that CL rules are applied like the heterogeneity of groups, besides ensuring the diversity of topics... Next, the groups decide a work plan to do the task and lastly, students gather the results of their investigation into a report to present to the whole class. Thus, GI is a general classroom organisational plan in which each group teaches others about one aspect of the topic.

3. The Jigsaw Technique

3.1. Historical Background

Raffel (1998) infers that the end of the American civil war in 1865 meant the end of slavery; however, African Americans toiled to reach equal rights in all aspects of life including education. Schools were segregated; meaning that students with different races go to different schools. African Americans, Mexican Americans, and Asian Americans were all engaged in the fierce fight for their civil rights. It was until 1954 when a decision was established claiming that it was unconstitutional for public schools to be racially segregated. Students from different races were allowed to attend any school with their full desire;

ultimately, schools were officially desegregated. By 1960, universities began integrating, and despite the racial tensions, progress has been tangible.

Desegregating schools has allowed different races, ethnicities and religions to gather in culturally diverse classrooms. This made social psychologists predict that it will create equal opportunities to all students by reducing prejudice and increasing the interpersonal relationships, self-esteem and academic performance of underprivileged minorities. However, the initially expected results did not occur but rather a worse scenario was on. Conflicts burst among students in and outside classrooms. Students were aggressively competing to gain teachers' praise, and they were opinionated with derogatory stereotypes of each other (Lindzey & Runyan, 2007). This had obliterated the essence of integrated schools; thus, several scholars rush to find solutions to the problem.

Elliot Aronson, a psychologist and a professor at the University of Texas at Austin, was among many scholars who took a psychological approach to observe the problem. He along with his graduate students realized that one of the major reasons for the inter-group hostility was the emphasis on competitiveness at the expense of interdependence in the classroom (Aronson, 2000). The competitive environment instigated students to discriminate against those different from them as they saw themselves as competitors vying against each other for the teacher's attention. In order to counteract the problem, Aronson thought about the possibility of teaching students in diversified learning teams in which students are required to work together to learn. Therefore, he aimed at creating an atmosphere of cooperation where students cooperate rather than compete to accomplish the learning process.

The idea of random grouping did not serve the real meaning of cooperation; hence, a more systematic structure that assures equal important roles for every student was a requirement. This was the key foundation of the Jigsaw technique (Aronson, 2000). As its name suggests, each member of the group is represented as a piece of a puzzle that is

necessary for the completion of the final picture. This resembles how each student is responsible for a section of a larger topic that will form the final product.

The jigsaw classrooms were first used in the early 1970s on fifth-graders (Aronson, 2000). Teachers were guided on how to devise cooperative jigsaw teams of students diversified in terms of race, ethnicity, and gender. An article was given to students on which each was responsible for a specific part of the article. Throughout the process, Aronson's colleagues had to remind students, with unpleasant behaviours, that their teammates would teach them a piece of information that they will all be examined on later. Therefore, students understood that to do well on exams, they need to support each member to complete their part as well as possible in order to deliver the information they have effectively. Consequently, negative stereotypes and conflicts started to fade as the classes became more humane and students work on developing their selves and others (Lindzey & Runyan, 2007).

The jigsaw classroom is a successful model in the current educational system (Aronson, Blaney, Sikes, Stephan, & Snapp, as cited in Sanderson, 2010), as it has proven its efficacy in all grades as well as in different classes such as social studies, foreign languages classes and science classes, and other subjects where learning from text is important. Since 1971, different classes have been implementing the jigsaw as part of CL indicating successful results in terms of students' attitudes as well as their academic performance (Aronson, 2000).

3.2. Definitions

Cook and Sittler (2008) describe the technique as:

...one of the most effective CL techniques, which was pioneered by Aronson as an alternative to traditional lecturing methods. Its core idea is that students must cooperate and depend on each other to learn the material... The instructor introduces the lesson and allows the students to learn first individually, and then by learning together as each becomes a valuable source

for the others...Students are required to be, active participants and to be responsible for what they teach their group mates and what they learn for themselves. (p. 78)

Aronson, the originator of the new technique, defines it as “...a research-based cooperative learning technique that reduces racial conflict among school children, promotes better learning, improves students’ motivation, and increases the enjoyment of the learning experience” (2000). Thus, the jigsaw technique is a highly structured approach of organising classroom activity where students work together in a cooperative situation towards an educational goal. One of the objectives of the technique is to defuse any inter-group tension whether caused by racial, regional, and gendered reasons or caused by any psychological or personal factors (Lindzey & Runyan, 2007). However, its ultimate goal is to increase positive educational outcomes such as guarantying learning through promoting self-esteem and reducing absenteeism.

The name is derived from the metaphor of putting together the pieces of a puzzle to create a picture (Aronson, 2000). Students resemble those pieces where each is essential for the completion of the final product. Thus, it requires students to share all their bits of information with one another to understand the whole lesson as “each member of a group has a piece of information needed to complete a group task” (Richards & Schmidt, 2002). In other words, students have to cooperate to assemble the information together like a jigsaw puzzle.

As part of CL, jigsaw necessitates students to learn to listen and speak productively i.e., communicating. According to (“JIGSAW TECHNIQUE (noun) definition and synonyms: Macmillan Dictionary,” n.d.), the jigsaw technique “is a communicative learning activity in which each member of a group has different pieces of information that they must share”. Similarly, in addition to students cooperating, learning and developing academic

skills, Slavin (as cited in Kelly, 2019) indicates that jigsaw teaches several social skills including communication, interpersonal skills, leadership abilities, conflict management, decision-making, and problem-solving skills.

3.3. Basic Jigsaw procedures

The general procedure to follow when implementing the basic jigsaw includes a set of ten steps presented by Aronson on his website. However, the teacher can always manipulate the process in accordance with the classroom settings and the topic addressed. According to Aronson (2000), applying the jigsaw technique proceeds as follows:

Step one: Assort 5 to 6 students in each group (the number in each group depends on the day's lesson and the number of students). Bear in mind to maintain the diversity in terms of students' gender, level, grades, class participation...

Step two: Appoint one student from each group as the leader. However, this step can be neglected, as each student will have his own distinct role in the group.

Step three: Divide the lesson into segments in accordance with the number in each group. Teams will have the same material as each other.

Step four: Each student has access to one segment. Make sure to indicate the segments in order to ease the application of the next steps.

Step five: Allot a specific amount of time to students so they can learn their segments; an overall comprehension is needed rather than memorisation. Allow students to take notes.

Step six: Rearrange students in "expert groups" by having one student from each jigsaw group join other students assigned to the same segment. Students will discuss the content learnt, or any ambiguous or interesting ideas they have found.

Step seven: Ask students ones again to reconvene to their "home groups", the first groups they have formed.

Step eight: Each student takes a turn to teach their chunk of information. The teacher has to encourage others to ask for clarification.

Step nine: Observe the process in each group and make an appropriate intervention when needed.

Step ten: When the groups finish the activity, teachers can give quizzes on the entire content individually or collectively in order to assure that all students have grasped the lesson appropriately.

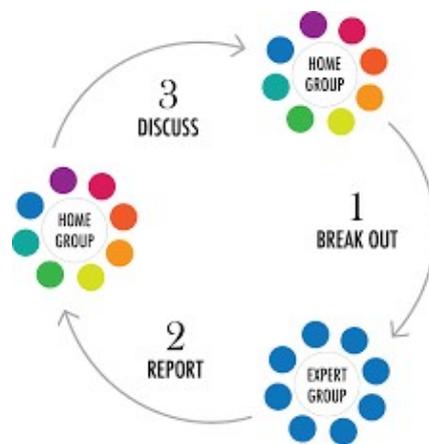


Figure 2: (Institute for Teaching and Learning Innovation, n.d.)

4. Deviations of the Jigsaw

Several scholars realized the need to make changes to the original jigsaw so it fits better with different curriculum and in different classrooms of diverse levels and subjects. Therefore, there have been several adaptations of the basic jigsaw technique including seven, that share the same title (Inocian, 2018). All of these techniques follow the same stages however there is some alteration in practice.

4.1. Jigsaw II

Robert Slavin and his associates create a variation that makes one change to the basic jigsaw, called Jigsaw II (Slavin 1986). In Jigsaw I, students are assessed individually and each receives a single score at the end of the activity, however in Jigsaw II, scores are given individually, once to students, then each group's score is averaged to assemble a group score

(Kagan & Kagan, 2009). This adaptation adds as well an element of competition for rewards among groups based on the sum of individuals quiz scores. Another element, which was added by Slavin in order to ease the process of learning in expert groups, was a sheet of questions assigned to experts before returning to home groups. This process allows students to have a full understanding of the related material.

4.2. Jigsaw III

As the previous adaptation, jigsaw III alters the original jigsaw with one slight addition, which is the element of time. Robert Stahl in 1994 deemed it necessary to provide more time before the final evaluation in order to allow a better preparation by students so they perform better in the final evaluation and at the learning process in general (Inocian, 2018).

4.3. Jigsaw IV

In this version, the teacher initiates with an introduction of the selected material by activating students 'prior knowledge, or introduce new topics. Furthermore, quizzes are applied first, on expert groups in order to check whether they have learned the information; second, on home groups to check the accuracy and whether they learnt the whole material not just segments. Lastly, the teacher completes the activity by checking the unanswered questions or the unlearned parts and therefore re-teaches any missed content. Holliday (2002) developed this technique as a rearrangement to the previous variations; I, II, and III, by adding more tools to detect what students are learning and missing (Inocian, 2018).

4.4. The Reverse Jigsaw

A CL technique that was developed by Timothy Hedeem in 2003. It is derived from the jigsaw I as they share the same basic structures. However, they differ in terms of how students will present their findings because each group has a distinct topic, and each will have one reporter that will present a report to all students as one group rather than home groups as

in previous variations. Hedeem (2003) asserts “where the Jigsaw is meant to bring about student comprehension of the instructor's material, the Reverse Jigsaw is meant to facilitate understanding of the range of participant interpretations, such as perceptions and judgments, on a number of topics through a highly participatory structure” (p. 327).

4.5. Kagan Jigsaw Variations

Within his Structural Approach to Cooperative Learning known also as Kagan Structures, Spencer Kagan along with his associates developed several variations of the original jigsaw model with the ultimate goal of promoting interaction between students in order to build interdependence, critical thinking, self-esteem and interesting learning tasks (Kagan & Kagan, 2009). Some examples of Kagan jigsaw variations include Within-Team jigsaw, Team jigsaw, Partner expert group jigsaw, pairs, Leapfrog Jigsaw...

5. Problems Areas in Applying the Jigsaw Technique

Although the benefits of CL including the jigsaw technique are well documented, implementing these pedagogical practices in the classroom is not an easy task as many difficulties face both learners and teachers. The coming section discusses some of those problems and their troubleshooting.

Even though CL is student-centred (Slavin, 1995), the teacher’s role is crucial for the successful flow of the process (Richards & Rodgers, 2001). In other words, the teacher has not to only monitor the whole process but also to be creative in order to overcome the problems that may emerge by students or by outer settings. However, some teachers tend to use direct or traditional instruction due to their lack of knowledge, preparation, or training on CL techniques. Therefore, a professional teacher must know that structuring CL techniques and ensuring that they run efficiently towards wanted results require planning, time, trial and error, patience and practice. Harel (as cited in Richards & Rodgers, 2001) summarises the role of the teacher in the CL classroom as follows:

During this time the teacher interacts, teaches, refocuses, asks, clarifies, supports, expands, celebrates, and empathizes. Depending on what problems evolve, the following supportive behaviours are utilized. Facilitators are giving feedback, redirecting the group with questions, encouraging the group to solve its problems, extending activity, encouraging thinking conflict, observing student and supplying resources. (p. 199)

Second, students are considered the number one challenge for a CL-class. For example, in a jigsaw classroom, students are supposed to be divided evenly but sometimes groups are not divisible, simply because one student may be absent or the number of students is not divided in accordance with the chunks of the lesson. However, this issue can be easily addressed as a teacher can assign two students the same chunk in the same group (Silver, Strong, & Perini, 2007). The same solution can be applied when experts do not teach their material comprehensively; this may detain the group from learning in harmony with the rest of the class. The teacher then can anticipate the problem when forming the groups by allocating two students to the same chunk; those two students may work better if collaborating.

In his website, Aronson (2000) tackles the problem of students' types like dominant, shy, slow...and their effects on the jigsaw classroom, students can unintentionally delay the process by being slow thinkers or poor readers or listeners:

- Dominant student: they may try to control the group or speak much; however, the teacher can prevent this by appointing one leader who is believed to be impartial to call roles in the group.
- Slow students: those are students with a low level of study or communication skills. They may not be able to teach the material assigned to them, which may create a learning gap for other students. Once again, the teacher is responsible to help this

category of students. In a jigsaw group, the experts discuss what they have read, slow students must listen carefully and if there still any ambiguities, the teacher must intervene to clarify the misapprehending (Silver, Strong, & Perini, 2007).

- Competitors: even though the jigsaw technique promotes cooperation, some students are not motivated to work in groups because of the habit of competing. This may cause them to do an unfair share of work, or they may monopolise the task thinking of getting better grades. However, the teacher can help reducing resistance by discussing the advantages of CL (Slavin, 1995).

In addition to the above reasons, group hate and boredom are factors that may slow the process. The former originates from the habit of working alone or disliking working with classmates especially those with different achieving levels. The latter happens when students are demotivated as dominant or loquacious students may cause shy or bright ones to avert speaking. This may be the case in other CL techniques; however, in a jigsaw classroom, each student is given an opportunity to teach, Aronson (2000) says, “being in the position of a teacher can be an exciting change of pace for all students” as a result students are motivated if they know that their role is vital and respected.

Third, planning a CL classroom is a crucial element for the successfulness of the CL; according to Slavin (1985) “The available material resources and other aspects of the physical environment are also important in promoting or inhibiting cooperation” (p. 426). However, planning is time consuming whether preparing the lesson or the physical layout of the classroom. On one hand, teachers spend considerable time arranging and gathering learning materials. In a jigsaw classroom, for instance, dividing the material into equal portions so to fit with students’ number has always been a complexity that faces teachers when preparing a lesson. On the other hand, teachers need to guarantee a careful design of the

classroom physical set such as desks and chairs in order to maximise the learning opportunities and engagement of every student.

Fourth, CL allows self-assessment and group-assessment of both academic and social learning; however, it has always been a controversy about the assessment procedures since fairness has been always questioned. Educators are worried about the negative effects of team scores on individual achievement and vice versa. These team scores are used to encourage cooperation and as a reward to acknowledge group work; nevertheless, they should not report individual academic achievement as Kagan states (as cited in Arends & Kilcher, 2010, p. 322) “When used effectively, cooperative learning approaches acknowledge individual accountability while recognising and rewarding the collective efforts of the team”. Most of the jigsaw variations include an individual final test; others add further quizzes to accomplish a specific purpose like Jigsaw IV. Therefore, assessment is a challenge since teachers have to accurately assess students’ individual as well as group work.

Finally, CL is not a matter of seating students together and assigning group work. But to create a CL lesson, Johnson and Johnson (1999) outline five fundamental elements that distinguish CL from other forms of group learning:

- Positive Interdependence: students must believe that they share a mutual goal so one cannot succeed unless the other members of the group succeeded.
- Individual and Group Accountability: each individual has to realise their responsibility for achieving group goals.
- Face to Face Promotive Interaction: students academically and personally help, assist, encourage, and support each other’s efforts to learn.
- Interpersonal and Small Group Skills: students must accurately use social skills like communicating, decision-making, managing conflict, trust-building...

- **Group Processing:** it refers to the reflection group members make at the end of the CL work. Such processing enables learning groups to honestly express concerns as well as to celebrate accomplishments.

Without these five conditions, the environment is not conducive to a cooperative learning experience.

In addition to the previously discussed issues, CLL faces some other limitations that require more attention and research. For example, considering that CLL is highly dynamic, things may be unmanageable and chaos may burst, groups will finish at different times, students may use their mother language instead of English...and many others that keep on emerging because of the continuous researches in CL and due to technological, social, demographical changes. The proposed solutions may or may not solve these common problems as it all depends on teachers' responsibility and students' commitment.

6. Jigsaw technique as a part of CLL in EFL classrooms

The teaching of second and foreign languages where CL is applied is "often referred to as Cooperative Language Learning CLL" (Richards & Rodgers, 2001, p. 193) i.e., learning through cooperative activities that foster learner-centred classrooms in contrary to traditional learning, that focuses on competitive individual learning. Furthermore, Richards and Rodgers(2001) point out that CLL pursues the principles of the Communicative Learning Teaching approach (CLT) which is based on the idea that successful language learning comes through communicating real meaning. Thus, CLL does not only make learners study language forms but also promotes communication in classrooms.

CLL is mainly based on the theories of Lev Vygotsky's (1962) and Jean Piaget's (1965) theories. The former claimed, in his Socio-cultural theory, that social interaction is seen as the only way of learning a language sufficiently. The latter argues that cognitive development occurs from social interaction. His developmental theory emphasises the

involvement and participation of learners in the learning process. In other words, Vygotsky and Piaget emphasise the practice of CL through social interaction and learners' active learning as they both see the learner as an active agent with Vygotsky describing learning as a social construction of knowledge. Therefore, social interaction is necessary for language learning and thus corresponds with the principles of CLL that focus on interactive, cooperative and learner-centred approach.

As a part of CL, the jigsaw technique can be easily implemented in EFL classrooms due to the many features that it shares with the other techniques and some distinct characteristics that make it protrude from them:

In addition to developing critical thinking and fostering cooperation, jigsaw as any other CLL technique, responds to the trends in EFL, which is focusing on the social part. In other words, the focus is upon the communicative factors in language learning not only through passively teaching some grammatical rules and vocabularies but also through teaching how to use the knowledge gained in practice. In sum, CLL enhances the learning of foreign languages and the interaction skills between learners because they are highly interactive pedagogies that work on both cognitive and social enhancement, students discover content and learn social skills such as communication, leadership, decision-making...

What distinguishes the jigsaw from other CLL techniques, is how each student is believed to own the capability to be the contributor of knowledge in class since each one's role of is crucial for the completion of the learning task. Additionally, students are convinced that they will achieve academic goals if and only if other team' mates achieve theirs. Moreover, jigsaw is a flexible technique as it can cover all of the language skills, as well as multiple aspects; teachers can modify a lesson that targets one element of language into an activity that practices multiple tasks at once. Furthermore, learners are motivated when they feel the importance of their accountability in the task and they consequently gain a sense of

continuous improvement. Unlike other CL techniques, jigsaw, especially the basic one, does not promote competitiveness because although all CL techniques came as a reaction to the traditional competitive classroom, they embed some sense of competition at least between groups like in STAD and TGT.

Conclusion

To summarise, this chapter reviewed general ideas related to cooperative learning and its different models as an introduction to the central research concept, which is the jigsaw technique. Subsequently, it elucidates its origin, history, and definitions. Next, the chapter addressed some difficulties of the application while demonstrating the role of the teacher, the basic elements, and assessment of a successful CL classroom. Finally, it explored the positive impact of the jigsaw in EFL classrooms. However, some ideas related to the role of students, advantages of the jigsaw, and assessment procedures need further description. In the meantime, the jigsaw technique has proven its efficacy; thus, it is worthwhile for teachers to bring this technique to the EFL classroom.

Chapter Three: Field Work

Part One: Research Methodology

Introduction

This part of the research presents an overview of the methodology we followed for this study. It portrays the different steps of the research design; thus, it explains the sample selection and the data collection methods i.e., the experiment and the teachers' questionnaire. It also provides a detailed explanation of the experiment and a full description of the questionnaire.

1. The experiment

1.1. Aim

As pointed at the beginning of the dissertation, the purpose of experimenting is to test whether applying the jigsaw technique will improve the written production of EFL learners. More precisely, we are testing the effectiveness of the basic jigsaw presented by Aronson on students' ability to produce academic paragraphs.

1.2. Population and Sample

The sample of the study is derived from a population of 393 second-year students at the Section of English at Biskra University, during the academic year 2019/2020. The students at this level have been taking courses of "Written Expression" for three semesters in which they have been taught how to write different types of paragraphs. Nine students have been chosen non-randomly using the convenience sampling strategy. They will be the only group for the experiment since one group pretest-posttest design will be implemented.

1.3. Research Design

In this research, the pre-experimental one-group pretest-posttest design is used which can be represented as:

$$X_1—T—X_2 \text{ (Hatch \& Lazaraton, 1991, p. 87)}$$

Where:

X1: pretest

T: treatments (jigsaw)

X2: posttest

Even though students have already learnt how to write academic paragraphs, this design aims at investigating the improvements a jigsaw technique can make on students' paragraph writing proficiency. The pre and posttests were used to measure these enhancements i.e., the differences between the tests scores.

1.3.1. The Pretest

The design adopted in this research requires collecting data on participants' level of performance before the intervention. Thus, a test that measures the students' proficiency in writing academic paragraph was conducted.

The students were asked to write an academic paragraph about "three significant events that occurred in the year 2020". The type of the paragraph was not determined as participants have the right to apply any, because the ultimate aim of the test is measuring the level of paragraph writing in general. The time allotted was 30 minutes. Yet, 20 minutes was devoted to discussing the different types and the general structure of a paragraph before the administration of the test. This discussion was a reminder that eases the process of writing.

1.3.2. The Treatment

The experiment includes the application of the basic jigsaw also known as Jigsaw I (Aronson, 1970) in targeting the writing skill of second-year students. A series of three teaching sessions were organised throughout the course of three weeks. Each session was 80 minutes long. Students' number did not allow varying the number each session; therefore, for three sessions, the number formed three groups with three students per each.

The basic jigsaw pattern (chapter2.3.3) was applied throughout the three sessions with a slight change according to the number of participants. Here is a description of the process:

- Prepare a three-paragraph essay. (decide segments A, B, C and articles 1,2,3 in order to fasten the next two steps)
- Divide three groups which three members each (the researcher decided the division each session based on students' previous performances)
- Assign one paragraph to each member in every group (assuring that members have access to one segment only)
- Allow 15 minutes of reading (Students are allowed to take notes)
- Constitute “expert groups” by setting together students who learnt the same material
- Allow 15 minutes of discussion. Students discuss the main ideas, ambiguities, interesting expressions and vocabulary
- Ask students to return to their “home groups”
- Students begin presenting what they have learnt respectively. (Each takes 5 to 10 minutes because the researcher aimed at promoting communication and critical thinking as students present their opinions besides their segments)
- Ask students to write an academic paragraph about all what has been discussed (This took 20 minutes maximum).

1. First teaching session: Three paragraphs selected from the article “When the best way to take notes is by hand” (Hammond, 2019) formed the material of the first session. The basic jigsaw procedure was followed(Appendix 1); and he researcher was an active participant through the process assuring that students understand the task, respect their roles, and communicate in English.

2. Second teaching session: The same previous steps were pursued where students investigated an essay about “Holidays of the USA” (Pullion.com, 2016)(Appendix 2). At the end of the session, students handed back paragraph developed based on the information gained from the essay proposed.

3. Third teaching session: Students followed the basic jigsaw procedure to write an academic paragraph about various information and facts of “Ancient Greece civilization” (Nelson, 2020) (Appendix 3).

1.3.3. The Posttest

A test that determines participants’ level of performance after the intervention and examines the effectiveness of the jigsaw technique on their written development, was conducted at the end of session three.

After applying the jigsaw for 60 minutes, students were asked to write a ten lines paragraph using academic rules. The type of the paragraph was not determined as students have the right to discuss the topic from their points of view. Similar to previous sessions, students wrote their paragraphs in 20 minutes. Nine paragraphs have been collected, examined and corrected. The results are discussed in the second part of the third chapter: Data Analysis and Interpretation.

2. The teachers’ questionnaire

2.1. Aim

The purpose of the teachers’ questionnaire is to investigate the different perceptions about CLL techniques in general and the jigsaw in particular in addition to teachers’ observations about students’ levels in writing. More precisely, this data collection method seeks to explore thoughts about the implementation of the jigsaw technique in the written expression course. The data collected from the questionnaire will be presented in the next part of this chapter. These results will allow in identifying the problems both students and teachers face in writing class. Furthermore, the analysis will clarify whether teachers are in favour of cooperative writing groups, and their perceptions about the use of the jigsaw technique as part of CLL. The gained information will present an alternative to overcome the different problems that may encounter EFL learners and teachers.

2.2. Sample

The sample was (18) teachers, who are teaching or have taught the written expression course. It included teachers from all levels at the Section of English of Biskra University. The return rate was 38.89% since only (7) teachers responded to the questions and emailed back the questionnaires.

2.3. Administration of the questionnaire

The questionnaires have been sent via email, and they were sent back throughout the course of two weeks.

2.4. Description of the questionnaire

The questionnaire included 16 close-ended questions organised in four sections. Each section is in a way related to one of the aspects discussed in the current research. The reason for applying a structured questionnaire is due to the nature of the research, which is based on quantitative measurements.

As shown in Appendix 7, the questionnaire layout is as follows:

Section One: it addressed two demographic details; academic qualification and teaching experience.

Section Two: it consisted of three multiple-choice questions. It aimed at exploring teachers' attitudes towards students' writing level.

Section Three: it comprised ten questions; ranging between multiple choice, five (six)-points Likert scale and polar questions. This section aimed at investigating teachers' attitudes towards CLL and the jigsaw technique.

Section Four: This section contained one polar question that dealt with the teachers' evaluation of CLL in EFL classrooms.

Conclusion

The first part of the third chapter presented a report of the different data collection methods used in the current research. We began with a full description of the steps followed in conducting the experiment i.e., the aim, the materials, the jigsaw pattern used in the teaching sessions, and the pre-test and posttest procedures. Later, we portrayed the second data collection method, the questionnaire, including the aim, sample, administration, and description of the questionnaire.

We were limited by time, syllabus constraints and several other conditions that affected the choice of the sample and design; otherwise, the teaching sessions would have been more than three and the sample would have been more accurate. According to Dörnyei “in quantitative research, which always aims at representativeness, non-probability samples are regarded as less-than-perfect” (2007, p. 98). However, taking into consideration the aim of the research, which is proving the proposed hypothesis, the risks of representativeness and the limitation of generalization are often negligible (Dörnyei, 2007). Analysis and interpretation of tests' results and the teachers' questionnaire findings will follow in the next part.

Part Two: Data Analysis and Interpretation

Introduction

The second part of the third chapter aims at answering the research questions that have been specified earlier in the research. It is devoted to the presentation, analysis, and interpretation of the results-driven from the pre-test, posttest, and the teachers' questionnaire. In other words, this report is a verification of the research hypotheses.

1. The experiment

1.1. An observation of the pre and posttests' paragraphs

1.1.1. Quantitative observation of the pretest's paragraph

Mistakes Students	Grammar	Spelling	Punctuation	Capitalization	Number of words
01	5	2	2	2	101
02	13	5	2	4	93
03	9	1	4	3	102
04	13	6	5	5	126
05	8	7	4	3	113
06	14	6	5	6	76
07	19	11	9	12	114
08	5	10	1	2	103
09	4	0	1	2	121
Total:	90	48	33	39	949
Percentage (%)	9.48%	5.06%	3.48%	4.11%	

Table 1: Quantitative Observation Grid of the Pretest's Paragraph

1.1.2. Qualitative observation of the pretest's paragraph

Content Students	Topic sentence		Supporting sentences		Concluding sentence		Vocabulary		Unity		Coherence		Academic level	
	T	%	T	%	T	%	T	%	T	%	T	%	T	%
01	W		A		A		W		G		G		A	
02	W		W		W		W		A		A		W	
03	W		W		A		A		A		A		A	
04	G		W		A		A		A		G		A	
05	G		G		N		W		A		A		W	
06	W		W		N		W		W		W		A	
07	W		W		A		W		W		W		A	
08	A		A		G		G		G		A		A	
09	G		A		N		G		A		A		A	
Letter Grades:	T	%	T	%	T	%	T	%	T	%	T	%	T	%
G: Good	3	33.34	1	11.11	1	11.11	2	22.22	2	22.22	2	22.22	0	0
A: Average	1	11.11	3	33.34	4	44.45	2	22.22	5	55.56	5	55.56	7	77.78
W: Week	5	55.56	5	55.56	1	11.11	5	55.56	2	22.22	2	22.22	2	22.22
N: None					3	33.33								

Table 2: Qualitative Observation Grid of the Pretest's Paragraph

1.1.3. Quantitative observation of the posttest' paragraph

Mistakes Students	Grammar	Spelling	Punctuation	Capitalization	Number of words
01	4	0	3	2	108
02	6	0	3	3	82
03	4	2	1	2	94
04	7	1	4	4	130
05	2	2	1	4	111
06	10	0	3	5	101
07	11	9	9	10	105
08	2	0	1	1	106
09	2	0	0	1	109
Total:	48	14	25	32	946
Percentage (%)	5.07%	1.48%	2.64%	3.38%	

Table 3: Quantitative Observation Grid of the Posttest' Paragraph

1.1.4. Qualitative observation of the posttest' paragraph

Content Students	Topic sentence		Supporting sentences		Concluding sentence		Vocabulary		Unity		Coherence		Academic level	
	T	%	T	%	T	%	T	%	T	%	T	%	T	%
01	G		G		G		G		A		A		A	
02	G		A		W		G		G		G		A	
03	A		G		A		A		A		A		G	
04	N		G		G		A		G		G		A	
05	G		G		A		G		G		G		G	
06	G		W		G		A		A		A		A	
07	A		A		W		W		A		A		A	
08	G		A		G		G		G		G		G	
09	G		G		N		G		G		G		A	
Letter Grades:	T	%	T	%	T	%	T	%	T	%	T	%	T	%
G: Good	6	66.67	5	55.56	4	44.44	5	55.56	5	55.56	5	55.56	3	33.33
A: Average	2	22.22	3	33.33	2	22.22	3	33.33	4	44.44	4	44.44	6	66.67
W:Week	0	0	1	11.11	2	22.22	1	11.11	0	0	0	0	0	0
N: None	1	11.11			1	11.11								

Table 4: Qualitative Observation Grid of the Posttest' Paragraph

1.2. Analysis of the observations

In order to assure whether the technique implemented has positively affected all aspects of writing (grammar; spelling; punctuation; capitalisation; the inclusion and the quality of the topic, supporting and concluding sentences; vocabulary; unity; coherence and

the academic level), a thorough analysis has been conducted. Hence, the progress students have made when writing the paragraphs was displayed in tables (1, 2, 3, and 4).

Concerning the pretest paragraph, the students have 9.48% (90) of grammatical mistakes and errors compared to the number of words, in addition to 5.06 % (48) spelling mistakes, 3.48 % (33) punctuation, (39) capitalisation mistakes i.e., 4.11 of percentage. As seen through these percentages, the proportion of mistakes is large compared to the number of words. Thus, students' level on the mechanics of writing is below average.

Moreover, the qualitative observation of the paragraph demonstrated that 33.34% wrote an effective and clear topic sentence; only one student got an average mark, whereas 55.56% of students produced weak unclear topic sentences. The same results happened in writing supporting sentences because only one student could inscribe effective supporting sentences with evidence and examples. Regardless of the two students who did not include a concluding sentence, only four got an average mark with two 2 students getting good and average for each. Students' vocabulary level was low since five got weak marks because of the poor and bad choice of words. For cohesion and coherence, students got similar marks, where the majority 55.56% had an average mark. In the final qualitative measure, academic level, students wrote in a vague informal style, seven students have an average level in writing academically; two students were unable to write a concise academic paragraph.

Therefore, students have different problems in paragraph writing whether in structure or ideas. Most of them failed to produce a clear paragraph; their value was affected by the poor choice of words, the large number of errors, limited transitional techniques and the unclear flow of ideas.

Conversely, in the posttest paragraphs, noticeable improvements have been spotted. For the quantitative measures, grammatical mistakes have dropped to 5.07% compared to 9.48% before the treatment was applied. Students reduced their mistakes by 3.58% in

spelling, 0.84% in punctuation, and 0.73% in capitalisation. Though the percentages are not high for punctuation and capitalisation, the researcher assumes that it is due to the difficult nature of the material treated that involved a great number of proper nouns and examples, which students could not filter to engage in their paragraphs (see Appendix 3)

Qualitative observation has also shown significant improvements. In coherence and cohesion, no student got weak marks, five gained good marks, and four got the average marks. Students used better transitional techniques and showed adhesion to the central idea of the paragraph. In terms of the structure of the paragraph, students seemed to respect its components as 66.67% got good marks for writing an effective topic sentence, 55.56% for both supporting and concluding sentence with one student neglecting to write the topic sentence and the concluding sentence. Concerning the measure of vocabulary, most students (55.56% Good) and (33.33% Average), succeeded in applying related and good terminology. In terms of the last measure, academic proficiency, there was not a major change since the majority (66.67%) got average marks compared to 77.78% in the pretest paragraph; however, 33.33% got Good mark and there were no weak ones. This change may be caused by the lack of knowledge about academic writing.

The comparison indicates that students learned something throughout the treatment period because the final paragraphs students wrote, are fairly better than the first ones. The number of mistakes decreased especially grammatical ones; the qualitative comparison as well indicated an enhancement mainly in the structure of the paragraph.

1.3. Pre Test and Posttest Results

The pre-test and posttest are considered as an investigation intended to check students' overall writing proficiency and progress. The former was conducted to diagnose their level before they receive the treatment (the basic jigsaw technique). The latter meant to measure the development of students' writing in order to compare to previous results and

therefore testing the suggested hypothesis that states that jigsaw writing class is effective in boosting students' writing abilities. Both pre and posttests were similar in structure; students were asked to write ten lines academic paragraph about a specific topic.

The correction of students' paragraphs is conducted cautiously using an analytic scoring rubric (see Appendix 4). The rubric measures five criteria of paragraph writing, which are topic sentence, supporting sentences, concluding sentence, transitions, and usage of conventions. Twenty scores are divided equally between the five components; each ranges from 1 to 4 using a four points scale: 1(very weak), 2(weak to average), 3(average to effective), and 4 (very effective).

In order to make a quantitative analysis of the results, statistical computation with Statistical Package for the Social Sciences (SPSS), version 26.0 for windows was used to analyse the scores obtained in both tests. The table down below (table 5) portrays the descriptive statistics where the mean (M), standard deviation (SD), and the range (i.e., minimum and maximum values) summarise the data necessary for the statistical test.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Scores on test before treatment	9	4,00	12,00	7,6667	2,50000
Scores on test after treatment	9	5,00	16,00	10,6667	3,27872

Table 5: Sample Table Reporting Descriptive Statistics

In the aforementioned table, we can perceive that writing a paragraph is a hard task for students as the total scores range from four to 12 in the pre-test scores. Moreover, students gained 69 (38.33%) out of the total scores, which is 180 (100%). However, in the posttest, students scored 96 (53.33%) out of 180, presenting a 15% raise.

1.4. T-test analysis

To check whether the difference in the achievement of students is due to the influence of the study's independent variable, which is the jigsaw technique, or it is only due to chance,

we have carried out a paired t-test to compare the pretest and posttest scores. According to Sheskin, “In one-group pretest-posttest design,...the t-test for two dependent samples (paired t-test) can be employed to determine if there is a significant difference between the pretest versus posttest scores of subjects” (2011, p. 794).

Paired Sample T-Test										
Paired Differences										
95% Confidence Interval										
of the Difference										
Sig. (2-tailed)										
Mean	Std. Deviation	Std. Error	Mean	Lower	Upper	T	df			
Pair 1	Scores on test before treatment - Scores on test after treatment	-3,00000	2,06155	,68718	-4,58465	-1,41535	-4,366	8	,002	

Table 6: Sample SPSS Output Reporting T-test Statistics

The data was sorted using a two-tailed t-test in order to verify the research hypothesis because we want to test a non-directional hypothesis, which claims that the jigsaw classroom affects the writing level of students. The t value was calculated using SPSS. The results indicate that there is a significant average difference between the students’ scores before (M=7.67, SD=2.50) and after (M=10.67, SD=3.28) the treatment; ($T_8=-4.366$, $p < 0.05$). Therefore, we reject the null hypothesis, which states that the paired sample means are equal. Furthermore, since the “Sample Table Reporting Descriptive Statistics” (table5) revealed that the Mean number of the scores after the treatment was greater than the mean of the scores before, we conclude that participants’ writing skills are positively affected by the implementation of the jigsaw technique. Specifically, our results suggest that if students work in an organized jigsaw classroom, their writing skill including all aspects will be enhanced.

1.5. Discussions of the results and findings

From the analysis and interpretation of the pre-test and posttest’ paragraphs, the results revealed many facts. Students made some serious errors when writing before they were introduced to the jigsaw classroom. However, after employing the technique for several

sessions, the errors rate dropped very significantly, and students showed considerable progress in the overall writing level. These results were revealed in the observations' tables where students have shown a progression in the writing quality and ability.

We assume that students benefitted from the essays provided by the researcher. They served as a model that displays the structure and the different components of a paragraph that students should follow. Furthermore, they were more aware of the mistakes they have committed, and they discover the errors they have been making. Therefore, they showed compliance to revise and rewrite better drafts. Moreover, the essays provided students with the content needed to be discussed in their writings; therefore, students did not struggle with the issue of the unfamiliarity of the topic.

The differences between the pre-test and the posttest's scores were used to statistically examine the students' writing development. The results obtained in the posttest showed that applying the jigsaw technique had a positive impact on the students' writing performance. Moreover, the findings of the experiment appeared to answer the research main question. In general, these findings confirm the research hypothesis, which states that if EFL learners are taught using the jigsaw technique, their writing will be positively influenced.

2. The Teachers' Questionnaire

2.1. Analysis and Interpretation of the Questionnaire

The data obtained from the questionnaire were coded, processed and analysed using SPSS v26.0. The frequency distribution of the data is displayed using either bar graphs or tables.

2.1.1. Section A: General Information

1. Degree(s) held:

- License (BA)
- Magister/Master(MA)

- **Doctorate (PhD)**

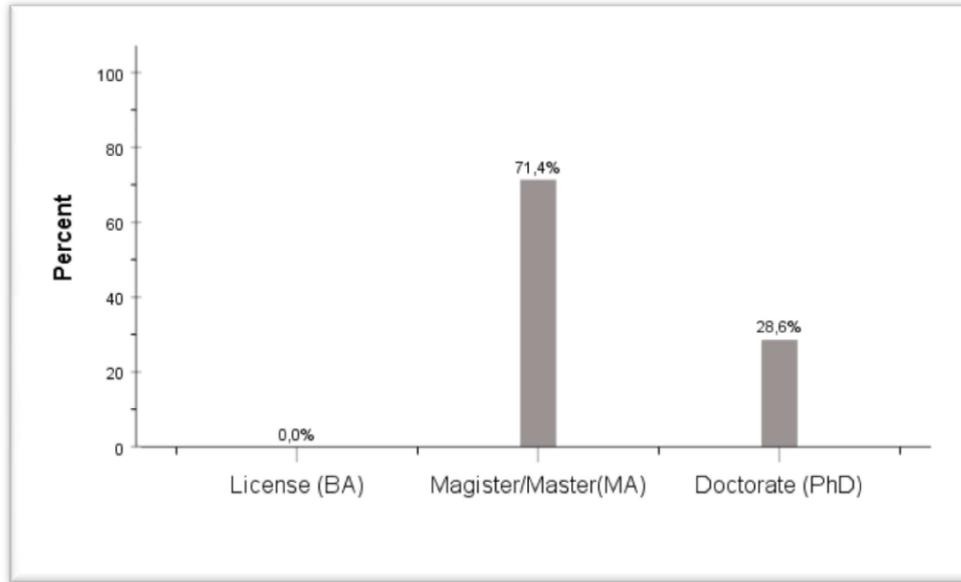


Figure 3: Degree Held

Figure 3 shows that the majority of the sample hold a Magister or a Master degree representing 71.4%. Only two teachers (28.6%) hold a doctorate; however, no respondent has a License degree.

2. How long have you been teaching the written expression course?

- **Less than one year**
- **One year to 5 years**
- **6 years and more**

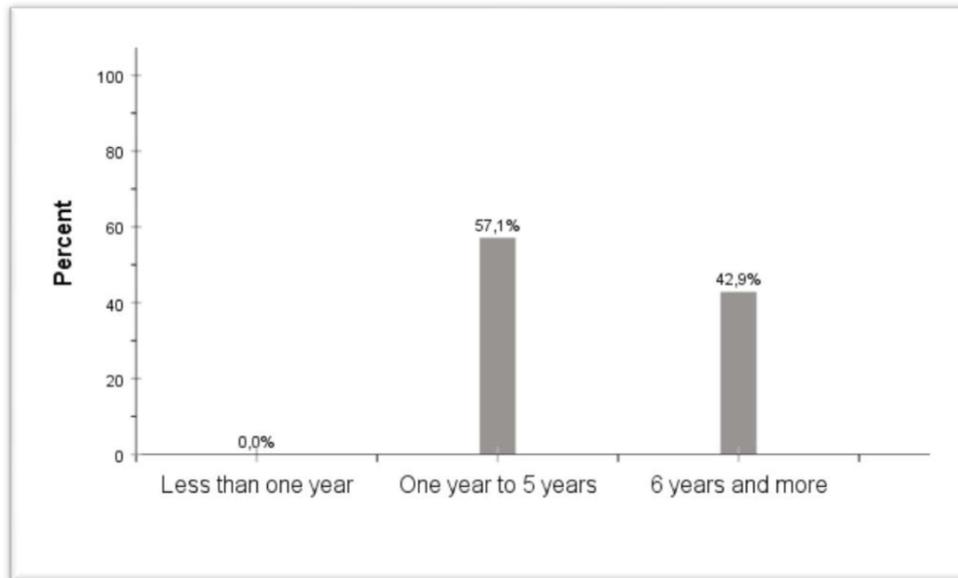


Figure 4: Years of Written Expression Teaching Experience

As shown in figure 4, 57.1% of teachers have been teaching the Written Expression course from one to five years. On the other hand, 42.9% has more than six years of experience. Even though the results show that there were no respondents, who have taught for one semester or a few months only, the majority of teachers are arguably novice Written Expression' teachers.

2.1.2. Section B: Teachers' Attitudes towards Students' Levels in Writing

3. Describe your students' level of writing

- **High**
- **Above average**
- **Average**
- **Below average**
- **Low**

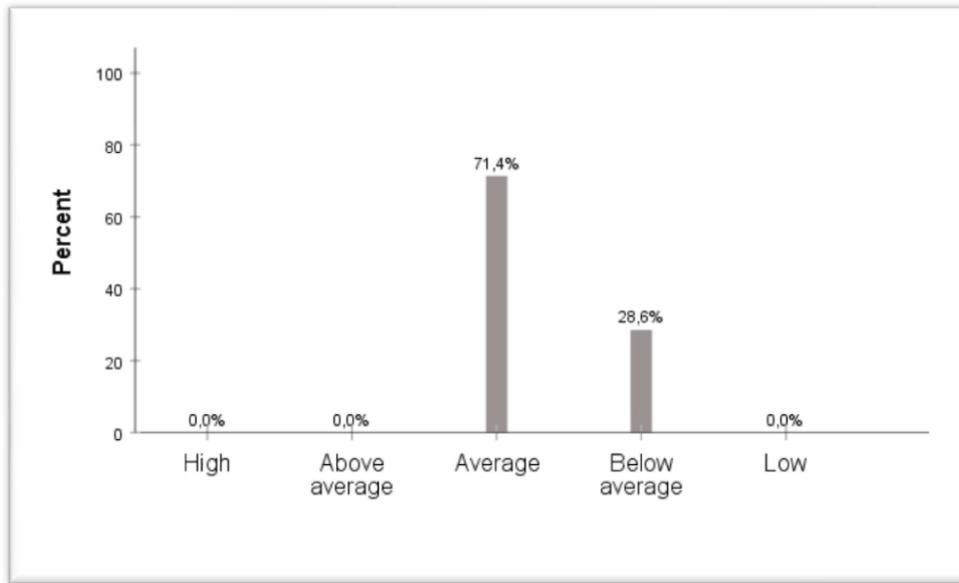


Figure 5: Students' Writing Level

The figure above reveals that 71.4% of teachers consider that the overall level of students in writing is average while 28.6% think it is below average. On the other hand, no respondent answered with “low”, “above average” or “high”. The results indicate that teachers are aware of their students’ deficiencies in writing. In addition, there are some students with an acceptable level of writing; however, the majority face many serious problems.

If your answer was below average or low, can you tick the reasons?

- a. Students’ unfamiliarity with the topic addressed
- b. Weak argumentation
- c. Lack of vocabulary
- d. Poor grammar and syntax skills
- e. Mother tongue interference
- f. Lack of practice
- g. Lack of motivation
- h. Absence of feedback
- i. All of the above

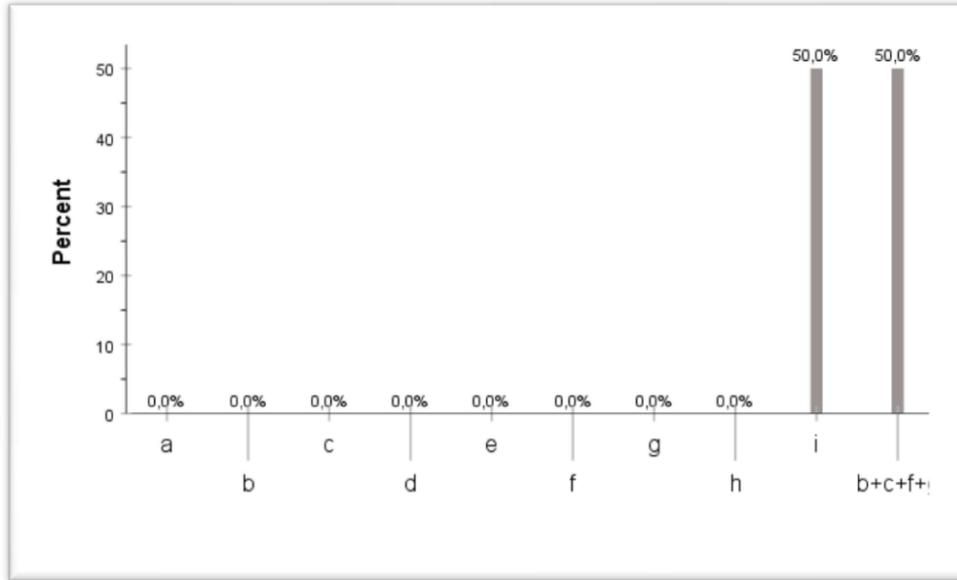


Figure 6: Reasons for Students' Low Level in Writing

Only two respondents' answers are represented in figure 6. The first teacher claims that students "below average" level is due to the unfamiliarity with the topic addressed; weak argumentation; language interference; and the lack of motivation, practice, vocabulary, and feedback. The second teacher thinks that students lack vocabulary, practice, and motivation; moreover, they do not know how to communicate their ideas properly when writing. However, we believe that applying an appropriate teaching technique can effectively reduce the issues that lower students' levels in writing.

4. What do students struggle with when writing an academic paragraph?

- a. Topic sentence
- b. Supporting sentences
- c. Concluding sentence
- d. Coherence
- e. Cohesion
- f. All of the above

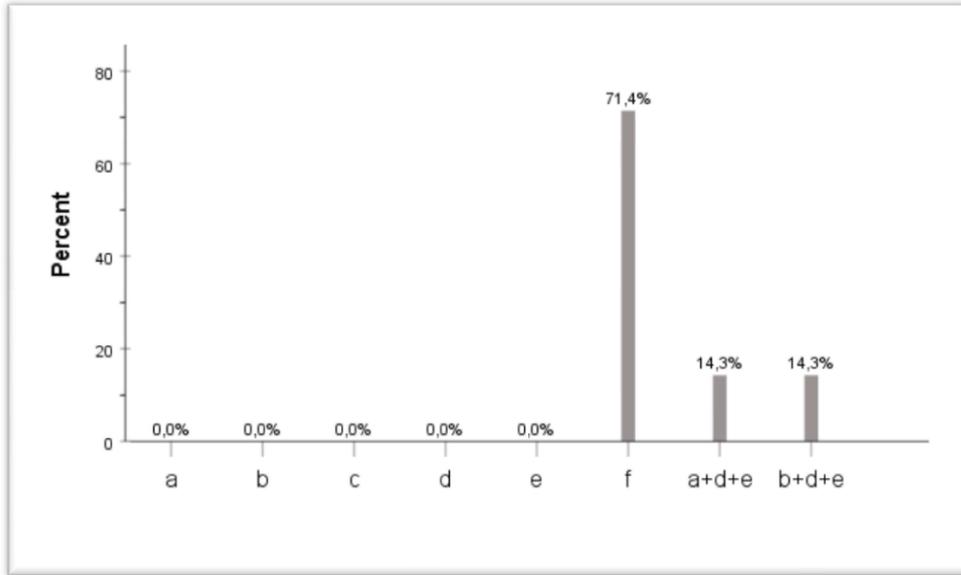


Figure 7: Students' Struggles when Writing Academic Paragraph

Figure 7 depicts that 71.4% of teachers think that students have problems with all the paragraph components. Whereas, 14.3% assumes that “coherence” and “cohesion” are hard for students. Within this percentage, one teacher added the “topic sentence”, and the other added the “supporting sentences” as other struggles. These problems are seen as another reason for students’ low achievement in writing in addition to the ones explained in figure 6.

2.1.3. Section C: Teachers’ Attitudes towards CLL

5. How do you set the number of students in each group?

- 3 to 4
- 5 to 6
- 7 and more

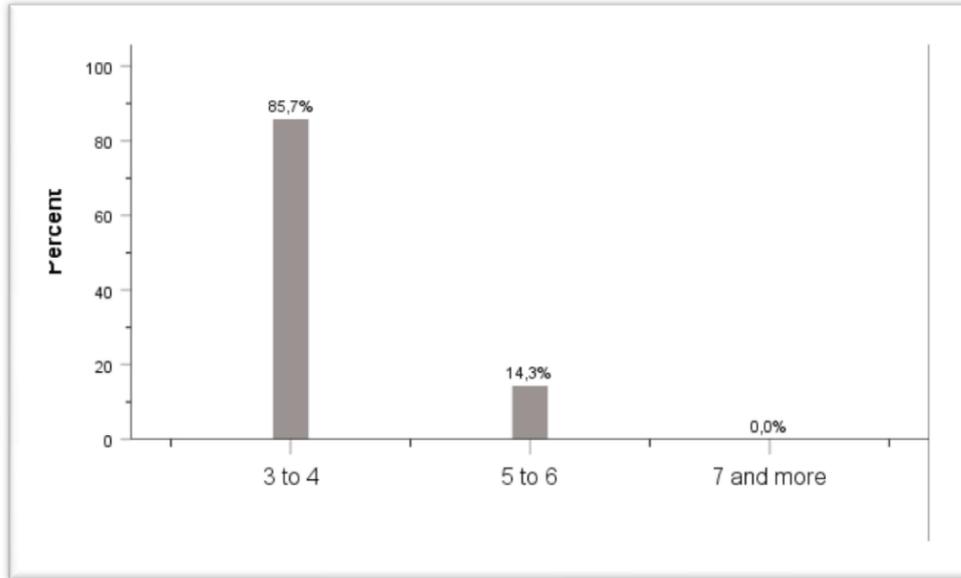


Figure 8: Students' Number in Groups

A percentage of 85.7% of teachers prefer to place “3 to 4” students in each group whereas 14.3% form teams of “5 to 6” student per group. No teacher prefers to join more than seven students in one group. The obtained results clarify that teachers believe that the smaller the group is in number, the better learning will be.

6. What criteria do you take into consideration to group students?

- a. Gender
- b. Students' levels
- c. Randomly
- d. Students select themselves
- e. Students' seating

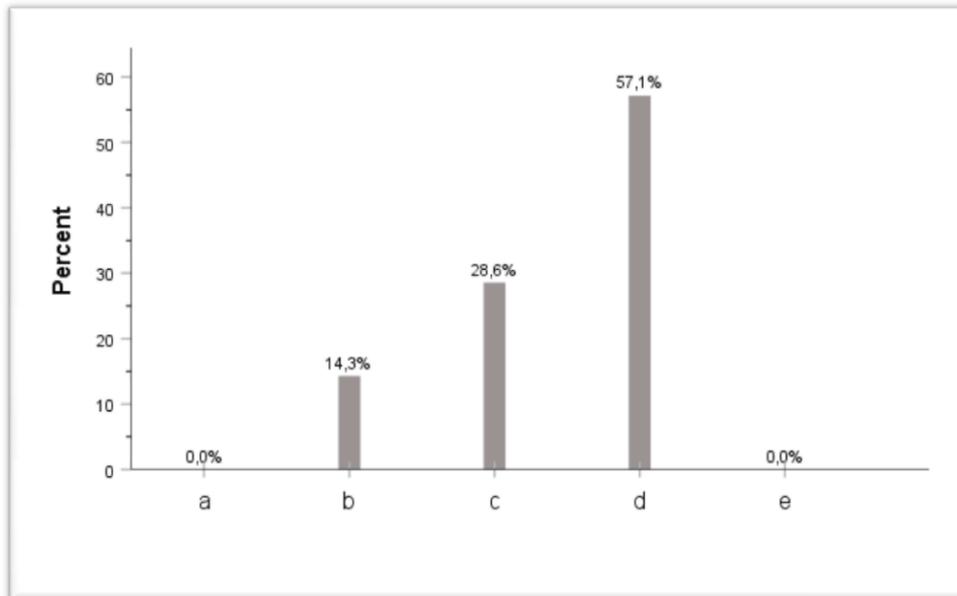


Figure 9: Students' Grouping Criteria

Figure 9 shows that the majority of teachers 57.1% give students the chance to select their teammates. 28.6% of teachers set group members randomly while 14.3% prefer to classify teams according to their learning levels. The “gender” criterion was not chosen as an answer because teachers do not consider it as a measurement to follow. Also, the physical layout of the classroom does not intervene in the learning process as students have the right to change the place for the sake of learning.

7. What role do you take when implementing the CLL techniques?

- a. Observer till students ask for help
- b. An active participant through the whole process
- c. I do not intervene

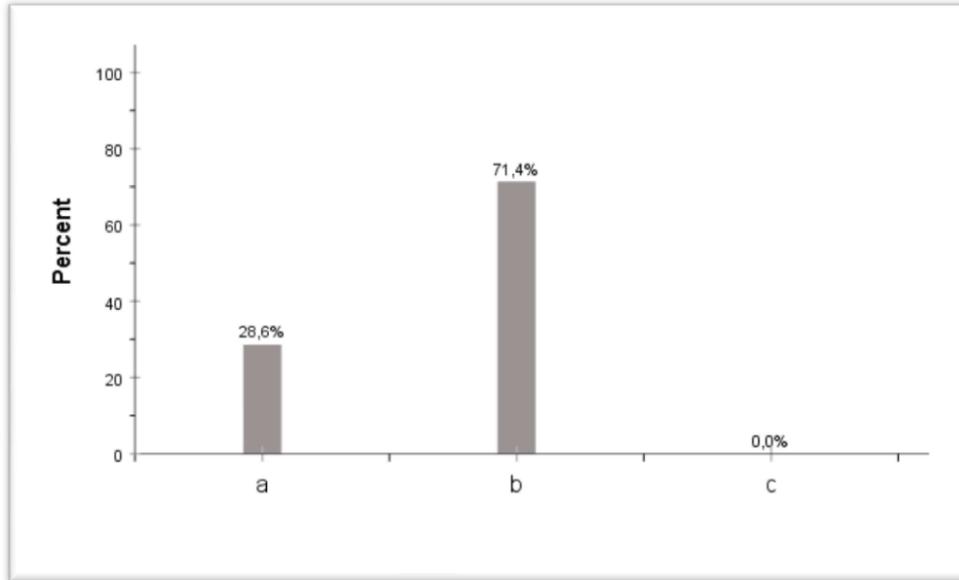


Figure 10: Teachers' Role when Implementing CLL Techniques

As indicated in figure10, teachers play a vital role when implementing CLL tasks as 71.4% prefer to be active throughout the whole process. On the other hand, and even though 28.6% of teachers choose not to be engaged in the task until students ask for their intervention, no teacher chooses to be completely excluded from the task. Therefore, teachers seem to appreciate their engagement in the learning process even if they are partially engaged.

8. Are you familiar with the Jigsaw technique?

- Yes
- No

Option	Number	%
Yes	4	57.1
No	3	42.9

Total	7	100.0
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Table 7: Teachers' Familiarity with the Jigsaw Technique

Even though the jigsaw is a widely known and used technique in EFL and ESL classrooms, a great percentage of the sample 42.9% are not familiar with the concept; therefore, they do not implement it in their courses despite its efficacy in targeting many language aspects and skills. However, many teachers, representing a percentage of 57.1 %, know what a jigsaw technique is.

If yes, how often do you use this technique?

- **Never**
- **Rarely**
- **Sometimes**
- **Often**
- **Always**

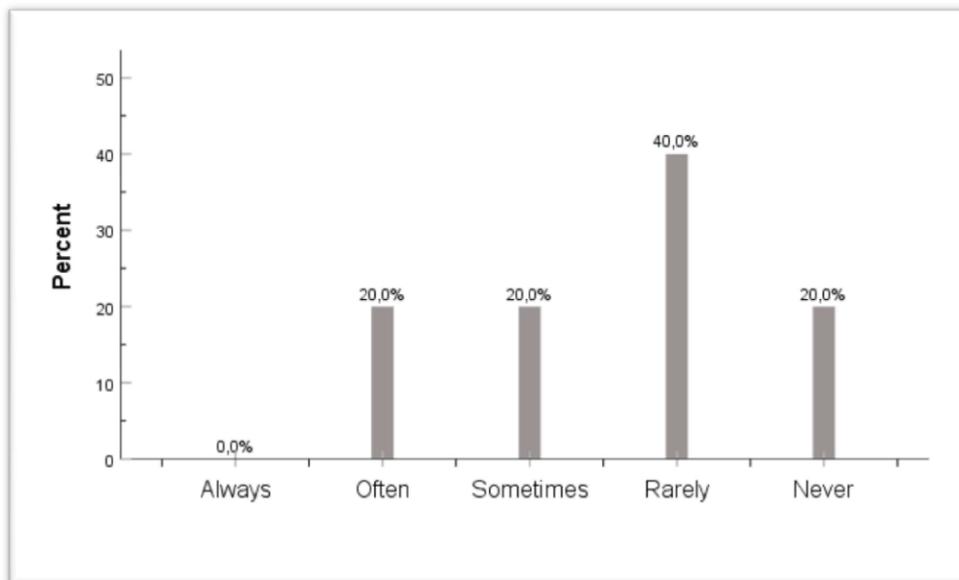


Figure 11: Teachers' Usage of the Jigsaw Technique

As shown in figure 11, among the 4 teachers who are familiar with the jigsaw technique, 20% claimed that they do not apply the technique at all. 20% of teachers employ this

technique either often or sometimes, whereas 40% stated that they rarely organise the writing groups based on the jigsaw procedure. The overloaded syllabus, the overcrowded classrooms, and the limited teaching hours may all cause teachers not to make use of the jigsaw technique or any other CLL techniques properly.

9. Are students motivated to work cooperatively?

- **Yes**
- **No**

Option	Number	%
Yes	7	100.0
No	0	0.0
Total	7	100.0

Table 8: Teachers’ Thoughts about Students’ Motivation to Work Cooperatively

All teachers agreed that students are motivated to work in a cooperative atmosphere. Indeed, students tend to work in teams for several reasons such as being more active in the learning process, feeling more personally engaged, and developing both social and academic skills. Students being motivated to work in cooperative settings elucidate how effective the CLL techniques are in EFL classrooms.

10. Do students encounter problems when working in groups?

- **Yes**
- **No**

Option	Number	%
Yes	7	100.0
No	0	0.0
Total	7	100.0

Table 9: Teachers' Thoughts about the Problems of Students' Working Cooperatively

One hundred per cent of teachers claimed that many problems face students when working in groups. Group conflict is the number one obstacle in CLL classrooms. Students' personalities, opinions, and social skills affect how they treat each other and therefore prevent learning appropriately.

11. How often do you use these techniques in your class?

	Students Team Achievement Division	Group Investigation	Teams-Games-Tournaments	Jigsaw technique	Learning together
Never	14,3%	0,0%	14,3%	42,9%	0,0%
Rarely	28,6%	28,6%	85,7%	14,3%	0,0%
Sometimes	57,1%	71,4%	0,0%	28,6%	14,3%
Often	0,0%	0,0%	0,0%	14,3%	42,9%
Usually	0,0%	0,0%	0,0%	0,0%	42,9%
Always	0,0%	0,0%	0,0%	0,0%	0,0%

Table 10: Teachers' Attitudes towards CLL Techniques

In table 10, it is apparent that the “Learning Together” frequency is high on the list; therefore, it is the most used technique among the rest. As expected, the jigsaw technique is not frequently used; in fact, 42.9% of teachers do not use the jigsaw technique when teaching writing. However, 14.3% apply the jigsaw technique; this is a good percentage compared to the sample size. Based on the previous tables and figures, teachers do not follow the structure, the rules, and the critical elements of each technique, which make CLL successful and beneficial to students. Most teachers place students in random groups with no attention to the organisation of the techniques; thus, it cannot be said that teachers are using CLL techniques.

12. Do you think that CLL techniques are used mostly for the sake of?

- **Learning**
- **Assessment**
- **Both**

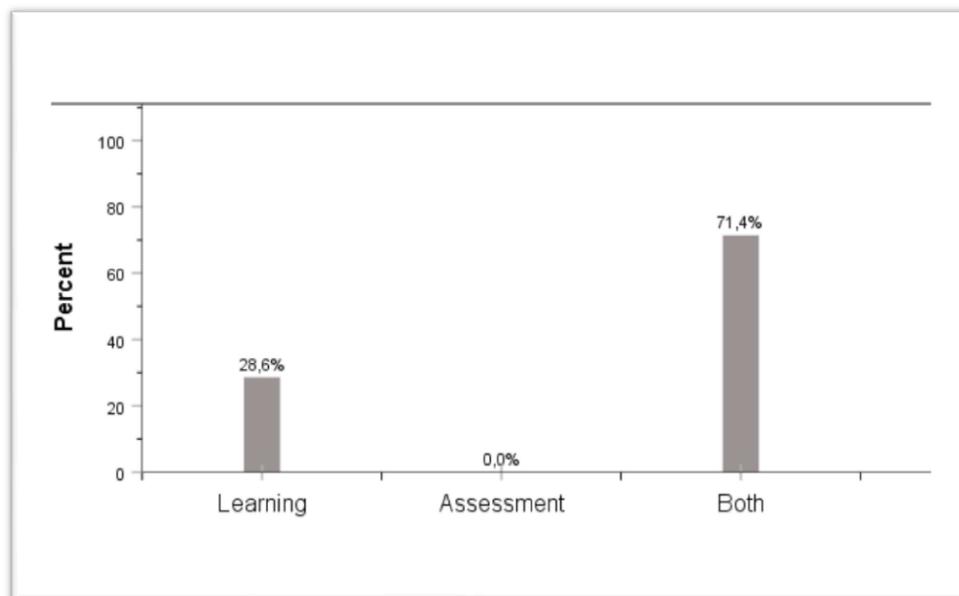


Figure 11: Teachers’ Thoughts about CLL Techniques Usage

Figure 11 illustrates the usage of CLL techniques in “Written Expression” classrooms. 71.4% of teachers use CLL techniques to teach as well as to assess students while 28.6% of teachers think that CLL techniques are good strategies for students to learn only. It is believed that teachers can direct the techniques to serve the targeted aim of the course, either assessment, learning, or both.

13. According to your experience, please indicate how far you agree with the following ideas. (Totally agree; partially agree; neither agree nor disagree; partially disagree; totally disagree).

	Totally agree	partially agree	neither agree nor disagree	partially disagree	Totally disagree
Jigsaw builds positive relationships among students.	14.3%	57.1%	14.3%	14.3%	00.0%
Jigsaw creates a positive learning environment for students to practice English.	14.3%	57.1%	14.3%	00.0%	14.3%
Jigsaw promotes social skills such as communication, problem-solving skills, interpersonal skills...	28.6%	42.9%	28.6%	00.0%	00.0%
Students gain practice in self-teaching and peer teaching	14.3%	28.6%	57.1%	00.0%	00.0%
Jigsaw produces long-term learning gains.	00.0%	42.9%	28.6%	28.6%	00.0%
Rewarding the group for the successful performance of its individuals is necessary.	28.6%	00.0%	42.9%	00.0%	28.6%

Table 11: Teachers’ Attitudes towards the Jigsaw Technique

The results embodied in table 11 show various points of views concerning different ideas about the jigsaw technique. Most teachers partially agreed on several benefits of the

jigsaw technique. Those benefits are in order, “Jigsaw builds positive relationships among students”, Jigsaw creates a positive learning environment for students to practice English”, “Jigsaw promotes social skills such as communication, problem-solving skills, interpersonal skills...” and “Jigsaw produces long-term learning gains”. Compared to the agreement level, the disagreement percentages upon those items were low or none on several occasions. However, as for the item “Students gain practice in self-teaching and peer teaching”, 57.1% of teachers did not pick sides. Opting for the “neutral” choice can be due to teachers’ unfamiliarity or the inadequate usage of the technique; therefore, teachers lack sufficient experience to judge the ideas. The last item targeted a very controversial idea, which is rewarding students after working in groups. The teachers’ opinions on this latter were diverse, as an exact percentage of 28.6% agree and 28.6% oppose the idea in addition to 42.9% who chose the neutral side. Mostly, teachers’ perceptions support the ideas developed in chapter two especially the ones that assert the benefits of the jigsaw as a CLL technique.

2.1.4. Section D: Teachers’ Evaluation of CLL Techniques

14. Do you think CLL techniques enhance students’ written production?

- Yes
- No

Option	Number	%
Yes	7	100.0
No	0	0.0
Total	7	100.0

Table 12: Teachers’ Opinions on the Effectiveness of CLL Techniques

Table 12 shows teachers' opinions towards the effectiveness of CLL in the writing classroom. 100.0% of teachers believe that CLL techniques do enhance students' writing skill. Indeed, writing in English within an academic context requires handling several multifaceted processes such as the organisation, clarity and coherence of the piece of the writing with accurate linguistics choices. Furthermore, writing is a thinking process that involves communicating the language most effectively. CLL techniques are believed to target all of these writing aspects and conditions and therefore enhancing the writing skill in general.

2.2. Discussion of the Findings

The analysis of the teachers' questionnaire revealed some interesting findings of the teachers' perceptions, beliefs and attitudes towards some concerns in the "Written Expression" course, CLL and its techniques, and the relation between the two. First, the answers drawn from the demographic questions demonstrated the mixed nature of the sample in terms of the degree held and experience. This diverse nature allowed a variety of responses. Second, the majority of the answers proved that teachers are, in fact, aware of the difference between the writing abilities of a second-year student and the actual level of their students, which is not, according to teachers, efficient enough because of the multiple issues that students struggle with when writing. Third, teachers favour group work; and they are aware of its benefits. The majority of the teachers prefer to form three to four members in each group. In addition, they do know about several CLL techniques; however, they use them very rarely. Moreover, all teachers claimed that they prefer to be involved in the group work; therefore, they achieve the core of CLL, which says that even though CLL is students-centred, teachers are essential contributors for the success of the task. Regardless of the positive responses such as students' motivation to work in groups, teachers stated that students face many problems when working cooperatively. Concerning the application of the

jigsaw technique, the results obtained did not sufficiently tackle the technique used in the study under investigation since only a few teachers recognise it, and even fewer use it frequently. So the majority of the answers about the items related to the application of the jigsaw technique are based on tentative assumptions rather than real experience. Last, all teachers believe in the value of CLL techniques; and they acknowledged their efficacy on students' writing level; therefore, the hypothesis, which claims that CLL is a beneficial pedagogical structure in the writing classroom has been proven.

Teachers' responses are important to understand the writing skill and its position in the classrooms; and therefore, deciding the most useful educational practices that could improve students' performance in this skill.

Conclusion

This part of the research has discussed and summarised the findings of the data collected from the pre-experiment and the teachers' questionnaire. Statistical analyses were used to analyse the findings from the two data collection methods in order to answer the hypotheses defined before.

The results obtained from the analysis of the one-group pretest-posttest design have proved how much the jigsaw technique is efficient in enhancing students' writing abilities. It targeted all the aspects of writing, this proved that the jigsaw is a multitasked technique that teachers can utilise in the "Written Expression" course to address whatever the teachers want their students to elevate.

Additionally, the analysis of the teachers' questionnaire has disclosed many ideas related to students' actual performance in the course. It showed as well, teachers' agreement upon the effectiveness of cooperative language learning techniques in written courses. Teachers acknowledged the role of group work but at the same time, they did not seem to

follow the typical steps of each technique; instead, they relied on assigning teams without following a specific set of steps that form a cooperative classroom.

General Conclusion

The impulses behind this research subject were many. First, we noticed that teachers when using the grouping technique, often randomly allocate groups and assignments, which led students to have unequal opportunities of learning; therefore, the educational objects are not reached, and the majority of students are unsatisfied with the learning environment. Second, the recent educational modes are leaning towards student-centred classrooms without neglecting the teacher's part; therefore, there has been an urge to apply methods that centre the instruction on students. Moreover, the focus was directed to social learning methods too, as a way to develop students' learning abilities. In this respect, the researcher thought about an approach that meets all of these criteria and more; the search results in introducing CLL techniques. Distinctively, a more precise literature review narrowed the selection to only one of these techniques, which is the jigsaw classroom.

Since writing is a crucial aspect of the overall language learning process for EFL learners. Numerous studies in the field have been undergone to find solutions that would promote the multiple aspects of writing at once and therefore surpass the general performance of the writing skill. As stated before, the jigsaw technique is assumed by the researcher to be the most suitable solution for this issue. Therefore, this study aimed to inspect the assumption that states that the jigsaw technique might be an appropriate practice to augment students' writing performance.

The jigsaw technique is one of the CLL techniques in which each student learns one segment of material presented by the teacher. Later, one student or "expert" from each team meets with students from other groups, who have learnt the same segment, to discuss the material and to help each other formulate effective teaching techniques that they then teach to the other teammates respectively. This simple definition demonstrated the exact steps and

roles of each of the student in addition to the teacher whose role is extremely indispensable in the cooperative classroom.

Taking into consideration the multitasked and flexible nature of the jigsaw technique that could fit and target any aspect of the language, the researcher hypothesised that a well-implemented jigsaw procedure would positively affect the students writing competency as it targets several aspects concurrently. According to the statistical measurements of the data collected, there was a significant difference between the students' performance before and after implementing the technique. The discussion of the results proved that the jigsaw is an effective procedure that can considerably enhance students' writing value by reducing the rate of errors, involving every student in the process of learning, providing a model to follow, and supplying students with the necessary information about the topic.

1. Pedagogical implementations

Learning a foreign language requires learning and mastering its four skills. Writing; however, is considered the most difficult one compared to the others. The difficulty lies in its demanding nature because it requires the knowledge of many language aspects like correct grammar, rich vocabulary, distinctive style...Moreover; learners have to make notable efforts and continuous practise to produce acceptable writings. Furthermore, writing exceeded the level of being merely symbols and words, it is considered as a means of communication that has to be well presented to communicate the language correctly. It also takes a large part in learners' examinations in EFL classes. Therefore, knowing how to write effectively is a need for learners in these classes.

In this respect, language educators have been searching for more effective ways to enhance learning writing skill. This search results in a change from the traditional instructional practices, which focus on competitive individualistic learning, to a high-performance team-based organisational structure. Cooperative learning is one of the

approaches that match the modern idea of mutuality in learning because it uses group activities to accomplish learning goals. One of the distinguished techniques developed under the field of CLL is the jigsaw, a useful structure with a four-decade track record of successfulness in the field of education and language learning (Aronson, 2000).

As assumed by the researcher, the jigsaw technique might be a good pedagogical practice to help students improve their writing quality. Therefore, the research has highlighted the effectiveness of the aforementioned technique on students' paragraph writing development (see Chapter 3, p.55, 70). Furthermore, as it has been discussed in the practical part of the current study, jigsaw as a CLL technique can be used in different academic settings because it has the potential to motivate students to naturally develop the interest of working with their colleagues and hence learning and increasing their academic achievements.

Based on the research findings, the following are recommendations for using the jigsaw and CLL techniques as pedagogical practices in the teaching of writing.

- It is recommended that teachers should diverge their techniques when teaching by avoiding relying on merely teacher-centred approaches such as direct instruction and incorporating more students-centred activities such as CLL.
- Applying CLL techniques requires alertness from both teachers and students. The former have to be well trained about CLL and its implementation. They also need to be informed about how to organise the groups, assign roles, design classroom instruction and materials, direct the classroom procedures and activities, and manage any external factors. The latter have to be active in the process by making choices and recognising their accountability for their academic success.
- Another important concern is students' perceptions of writing in groups. This is a highly significant aspect that should be taken into pedagogical considerations by

syllabus designers since it decides a great portion of students' academic achievements.

- Although students shape the group as one entity, they are responsible for their individual accomplishments. This makes evaluation a challenge for teachers because they have to be ensuring that students as well as groups receive the grade they earn. Thus, teachers have to set an outline for the classroom evaluation scheme; they also ought to inform their students with the proposed outline in order to make them more motivated and engaged in the writing task.
- The jigsaw technique is only one of the many types of CLL techniques and it is not, as any other teaching structure, a completely infallible teaching tool. However, it obviates the negative effects of other CLL techniques because each member of the group is equally important and valued by other group mates, which may reduce the competitive attitudes of students. It will also offer students an opportunity to develop interpersonal skills, which will help them in their daily lives. Furthermore, jigsaw introduces a new way of promoting the learners' willingness to communicate and socialise while engaging in foreign language writing, since each student have to separately present something learnt distinctively.
- The jigsaw technique is a highly structured flexible teaching approach, which is used for teaching various subjects in schools and universities. As regards for EFL learning and teaching, the jigsaw can be manipulated to target a variety of classroom activities for different language tasks. In other words, teachers can focus on any language aspect or skill by making a few revisions on the material chosen. For example, the basic jigsaw, which was introduced in the current study, has dealt with various skills and aspects at once. More precisely, at first, students

were asked to; (a) read the material, (b) take notes, (c) discuss the topic (listening skill), (d) orally present the material learnt (speaking skill), (e) writing. As it may seem that the cardinal purpose was to develop students' writing level, several other skills and aspects were also addressed.

2. Suggestions for Further Research

Based on the experience accumulated from this study, and though it proved that the jigsaw is an effective technique for improving students' writing quality, other aspects still call for further exploration:

- This research was carried out on second-year university students; however, the same or other quasi-experimental designs with more participants can be implemented among other educational levels so that the research results would be generalised.
- Research also can be done to compare between the different jigsaw adaptations. This may explore which technique works best with particular groups.
- Similar studies may be replicated to compare jigsaw variations to other CLL techniques.
- The materials used in this study were all taken from online articles; other types of texts such as pedagogical texts, which are perhaps more challenging to manipulate, may be selected in further research studies.

3. Limitations of the Study

Even though the results attest the hypotheses suggested, the study had some potential limitations that hinder the study's sample selection, design pursued, the application of the experiment, and the interpretation of the findings.

- ⇒ The sample size for the experiment is too small: The researcher initially opted for an experimental study in which random assignments of subjects is used in order to provide the highest levels of causal validity and to make valid generalisations.

However, due to many reasons such as the very few number of students who showed interest and commitment to participating in the study, the researcher was obliged to reframe the study to a much suitable design. In other words, convenience sampling may not make the participants representative of the populations under study. Therefore, basing the study in larger sample size could have generated more accurate results.

⇒ The research has been conducted approaching many obstacles imposed by the COVID-19 pandemic, like the lockdown that caused public transportation to stop and the university to shut down. This made it impossible for the researcher to convene with the participants. Therefore, the teaching sessions were limited to only three with considering the last session as a posttest session as well. If not, more sessions would have been constituted.

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Appendices

Appendix 1

Nowadays many people can type faster than they can write by hand particularly if they have grown up using laptops. This is a hugely useful skill of course and allows you to take copious notes, quickly and easily, which must surely be a good thing, right? maybe not. In an experiment, run by Pam Mueller at Princeton University published in 2014, students were given Ted talks to watch and were told to take notes. Half were given laptops and half took notes with a pen and paper. You might expect little difference in the notes since students are so used to using a keyboard these days. In fact, there was. The students using a keyboard were more likely to type the lecturers' words verbatim, while the students writing more slowly by hand had no choice but to engage with the information in order to allow them to summarise. Afterwards, the students were given some tricky intelligence tests to distract them and were then quizzed on the content of the lecture. When it came to remembering facts, it did not matter which method of note-taking they used, but when asked to explain the concepts covered in the lecture, the students who took notes by hand did better. Verbatim note-taking involves a shallower form of cognitive processing. You can even do it without thinking about the content at all. However, when using a pen and paper you process the information more deeply because you cannot possibly write it all down. The other advantage of using a pen and paper is that you can move around the page very quickly, circling, underlining or adding extra information in the margins. Laptops are convenient, but turn out to be not the best option some of the time.

The team wondered whether it was not the use of a laptop that was the problem, but the fact that the students took verbatim notes. So next, they did a similar study, but this time the students were cautioned against taking verbatim notes. Despite the warning, when the notes were analysed, the laptop-using students still took more verbatim notes and still could not answer the conceptual questions as well as the people taking longhand notes. Surely, in the

end, if your notes are more complete this will help when it comes to revision. When the students were allowed to revise from their notes before being tested a week later, the pen-and-paper group still did better. The reason is that cognitively processing material more deeply while you listen, helps you both to understand it and to remember it later on. Even if you never refer back to your notes again, the process of creating them can be useful. The exception is with learning simple facts. Then taking notes on a laptop can work just fine. The advantage of not having to take notes is that you can focus your full attention on what's you are being told without worrying about writing it down. A more passive way still of keeping track of information from lectures is to record them so you can listen again or re-watch them later. Nevertheless, is there a risk that because you know everything is there for when you need it, you might not concentrate properly? On the other hand, does it free you up to concentrate fully on what is happening because you are not distracted by trying to take notes?

Within psychology when note-taking is outsourced to technology, it is known as cognitive off-loading. Yet, does it help? In an experiment by Bianka Patel at the University of North Carolina, pharmacy students were told that their lecture would be split into two halves. The first 50-minute section would be videoed so that they could watch it again later if they wanted to. However, the second 50-minute section would not be recorded. They were tested immediately after the session and a week later to see how much they could recall from each lecture – the one that was recorded allowing them to fully engage with the topic and the non-videoed lecture where they needed to take notes. The results showed that there was no difference. This is because both techniques bring their own advantages. The advantage of not having to take notes is that you can focus your full attention on what you are being told without worrying about writing it down because they can always listen again later. However, the benefit of taking notes is that it forces you to process the information and think about it in order to work out the best way of summarising it. Therefore, whether it is best to record

lectures or not is more or less down to personal preference. Still, one more thing to consider is that typed notes do have an advantage when it comes to easy storage and searching. Thus, if you can type fast and you want a transcription, then a laptop is ideal, but if you aim to understand the material better and not just to create a record of the material, then take notes by hand. In addition, the other lesson from all of this, of course, is to make your notes concise.

Appendix 2

New Year's Day celebrates the start of a new year. Americans celebrate New Year's Day on the first day of January, but the celebration actually begins on December 31, New Year's Eve, the night before New Year's Day. People stay up all night; they blow horns and whistles at midnight to announce the beginning of a new year. They also sing and shout "Happy New Year!". Furthermore, and on January 15, Americans celebrate the birthday of Martin Luther King, Jr. He was a minister who fought against racial discrimination. And the one who said that a person's character is more important than the color of his skin. To remember Martin Luther King many Americans go to church or participate in public ceremonies. In February, Americans celebrate St. Valentine's Day on February 14. It is a day of love and friendship. People send greeting cards to their sweethearts and friends. Children decorate their classrooms with big red hearts and give red roses and chocolate to their sweethearts, friends and families. On the third Monday in February, Americans celebrate President's Day. This holiday honors two of their greatest presidents, George Washington, the first president, and Abraham Lincoln, the sixteenth president. Until 1986, this holiday was in fact separated into two vacations: Abraham Lincoln's Birthday, celebrated on February 12, and George Washington's Birthday, celebrated on February 22. Nowadays their birthdays are celebrated on the 3rd Monday in February.

On March 17, Americans celebrate an Irish religious holiday, St. Patrick's Day. This Day people decorate their houses, schools, and streets with green shamrocks. In addition, they all wear something green. They say that everyone is Irish on St. Patrick's Day. Another festival celebrating the resurrection of Christ is Easter, the most important and oldest festival of the Christian Church. It is celebrated between 21 March and 25 April. The week before Easter Americans color eggs. On Easter Sunday, children wake up to find that, the Easter Bunny has left them a basket of candy. In addition, Americans honor their mothers on the second

Sunday in May. This day is called Mother's Day. Children usually buy their Moms a nice greeting card and flowers. Men usually make a big dinner. It is the way of saying, "Thanks for being such a great Mom!". Fathers have a holiday dedicated to them as well; Americans celebrate Father's Day on the third Sunday in June. Children usually cook breakfast for their Dads and buy them a greeting card and a new necktie. On July 4, the United States celebrates Independence Day. It is named so because on July 4, 1776, founding fathers declared that the United States would be free and independent from England. On October 12, Americans celebrate Columbus Day. Christopher Columbus discovered America on October 12, 1492. At that time, many people in Europe thought that the world was flat and that if a ship sailed to the edge of the world, it would fall off! However, Columbus believed the world was round and made the journey to America.

Halloween is one of the holydays for children. American children celebrate Halloween on October 31. They wear masks and colorful costumes. They dress up as their favorite movie characters. The most popular costumes are ghosts, witches, and skeletons. The children walk door to door in the neighborhood and shout "trick or treat!" Most people give them a treat – candy or fruit. Americans also decorate their houses in the traditional Halloween colors: orange and black using as well jack-o-lantern. They are pumpkins that are carved to look like faces. Americans celebrate Thanksgiving Day on the fourth Thursday in November. This is a family holiday where Families gather to give thanks for all the good things in their lives. They make a big turkey dinner. On December 25, Americans celebrate Christmas. It is a religious holiday where Christians celebrate the birth of Jesus Christ. People prepare for Christmas weeks before. They buy gifts for their families and friends, choose a tree and decorate it with ornaments and lights. Moreover, they prepare special foods and cookies. Christmas is also the day that Santa Claus visits children and brings them presents in bright paper and ribbons. He delivers them on Christmas Eve, the night before Christmas when

children are sleeping. He climbs down the chimney and leaves the presents under the Christmas tree. In the morning, children open their presents and then go to church. They wish each other a “Merry Christmas!”

Appendix 3

Ancient Greece was a civilization that dominated much of the Mediterranean thousands of years ago. At its peak under Alexander the Great, Ancient Greece ruled much of Europe and Western Asia. The Greeks came before the Romans and they influenced much of the Roman culture.

Ancient Greece formed the foundation of much of Western culture today. They affected everything from government, philosophy, science, mathematics, art, literature, and even sports. The Ancient Greeks may have lived over 2000 years ago, but they left a lasting legacy that still affects Western culture and way of life. During the height of the Greek civilization, Greek culture spread throughout the Mediterranean. It was then imitated by the Ancient Romans. After the Middle Ages, the European Renaissance brought back many aspects of Greek culture. As a result, we see the effects of Ancient Greece throughout the world today. For example in architecture, Greek architecture has been imitated throughout history. The Romans copied many of the Greek ideas into their buildings. Later, Renaissance architects tried to imitate the Greek style of architecture. Today, many government buildings are built in the Greek classical style including the U.S. Capitol Building and the U.S. Supreme Court Building in Washington, D.C.

Fun Facts about Ancient Greece;

- The Greeks often ate dinner while lying on their sides.
- They invented the yo-yo, which is considered the second oldest toy in the world after the doll.
- About one-third of the populations of some city-states were slaves.
- There were more city-states than just Sparta and Athens; Ancient Greece had around 100 city-states.

- The Romans copied much of the Greek culture including their gods, architecture, language, and even how they ate!
- Pheidippides was a Greek hero who ran 150 miles from Marathon to Sparta to get help against the Persians. After the Greeks won the war, he ran 25 miles from Marathon to Athens to announce the victory. This is where the marathon-running race gets its name.
- When law trials were held in the city of Athens, they used large juries of 500 citizens. That is a lot more than the 12 we use today

The Greeks had numerous gods and many stories and myths that surrounded them. Greek mythology consists of all the stories and tales about the Greek gods, goddesses, and heroes. It is also the religion of Ancient Greece as the Greeks built temples and offered sacrifices to their major gods.

The twelve Olympian gods were the major gods of the Greeks and lived on Mount Olympus. They included Zeus - Leader of the Olympians and god of the sky and lightning, Hera - Apollo - Athena (Greek goddess of wisdom, defense, and war), Athena (Goddess of Wisdom) Hades (God of the Underworld).

A Greek hero was a brave and strong man that was favored by the gods. He performed brave exploits and adventures. Sometimes the hero, even though mortal, was somehow related to the gods. Hercules - A son of Zeus and the greatest hero in Greek Mythology, Hercules had many labors he had to perform. He was very strong and fought many monsters in his adventures. There were also Achilles and Odysseus.

Appendix 4

Paragraph Rubric

Name: _____

Date: _____

Title of Work: _____

	Criteria			
	1	2	3	4
Topic Sentence / Main Idea	Student communicates and expresses main idea with limited effectiveness. Topic sentence (Introduction) is unclear and very weak	Student communicates and expresses main idea with some effectiveness. Topic sentence (Introduction) is somehow clear and effective.	Student communicates and expresses main idea with considerable effectiveness. Topic sentence (Introduction) is clear and effective.	Student communicates and expresses main idea with a high degree of effectiveness. Topic sentence (Introduction) is very strong and very effective.
Supporting Detail Sentences (3 Body Sentences)	Supporting details (with evidence, examples, and descriptions) are unclear, not relevant to the text, and not related to the main idea. Student demonstrated limited understanding	Supporting details (evidence, examples, descriptions) are somehow clear, sometimes relevant to text, and sometimes related to the main idea. Student demonstrated some understanding	Supporting details (evidence, examples, descriptions) are effective, mostly relevant to text, complex, and are related to the main idea. Student demonstrated considerable understanding.	Supporting details (evidence, examples, descriptions) are consistently specific, relevant to text, complex, often insightful, and closely related to the main idea. Student demonstrated thorough understanding
Conclusion / Closing Sentence	Closing sentence is very weak, unclear and incorrectly placed, and is not restated in the topic sentence and the main idea and is unsuccessful in resolving /summarizing text. Student demonstrated limited understanding	Closing sentence is unclear and incorrectly placed, and is somehow restated in the topic sentence and the main idea, and is somehow successful in resolving /summarizing text. Student demonstrated some understanding	Closing sentence is strong, clearly restated in the topic sentence and the main idea, and is sometimes successful in resolving/summarizing text. Student demonstrated considerable understanding	Closing sentence is very strong, very clearly restated in the topic sentence and the main idea, and is successful in resolving / summarizing text. Student demonstrated thorough understanding.
Transitions	Transitions are used to show the development from one idea to the next paragraphing with limited effectiveness.	Transitions are used to show the development from one idea to the next paragraphing with some effectiveness.	Transitions are used to show the development from one idea to the next paragraphing with considerable effectiveness.	Transitions are used to show the development from one idea to the next paragraphing with a high degree of effectiveness
Use of conventions : (grammar, spelling, punctuation, and terminology)	Uses conventions, vocabulary, and terminology of the discipline with limited effectiveness [major spelling/grammar errors (4 and more errors)]	Uses conventions, vocabulary, and terminology of the discipline with some effectiveness [some spelling/grammar errors (3 errors)]	Uses conventions, vocabulary, and terminology of the discipline with considerable effectiveness [few spelling/grammar errors (2 errors)]	Uses conventions, vocabulary, and terminology of the discipline with a high degree of effectiveness (no spelling/grammar errors)
Comment(s):				

Appendix 5

A There are many events happened this year
P/S/P in our world. firstly the algerian crisis
P because there was not a president for the
P/WW/ country, that's what led people to do
P/P protests. Secondly the problem of Corona
S/A/S disease. Exactly in china, this disease makes
App the world feel horror specially in the
P/P airports of the countries. Finally the
WW/T biggest problem that all social media talk about
is the struggle between USA and IRAN for and
that's for several ~~the~~ reasons. ~~X~~
that is

$$1 + 2 + 0 + 2 + 1 = 7$$

P/V/A

P/T

Tr/

APP

T

P/T

P

P

APP

This year has a plenty of world events. The most significant events are as follows. First, the chinese people afected with virus called "corona"; it kills hundreds of people from all over the world. Second, as another event, the president of United states of America "Mr Trump" who has killed the [second most important Iranian person in the world], which almost could causes another ~~war~~ world war. Finally, the huge fire that may destroy most of "Australia" because of the windy climate →

→ At the end this year was so difficult to all of us, I hope the next years will be so good ~~for~~ to us.

$$2 + 2 + 1 + 3 + 1 = \textcircled{A}$$

Appendix 6

The ancient Greek civilization ~~which~~ dominated much of the Mediterranean thousands of years ago.

WW with Alexander the Great. Ancient Greece ruled Europe and western Asia. it's people who lived more than 2000 years.

P affected in Art - Philosophy - mathematics - literature ...

WW

A Also Ancient Greece left huge impact which still remind us now specially in Architecture. There are fun facts about ancient Greece like the way of eating and invention of the yo-yo. Also one third of the population are slaves and there is [Pheidippides who ran thousand miles]. The Romans copied much of Greek culture such as - gods - language.

?m

P There was 12 gods were the major gods in Greek and lived on Mount Olympus such as: Hera, Apollo, and each one has a specific role.

P On conclusion we can say that the ancient Greece ^{is} one of the greatest civilization.

$$1 + 3 + 3 + 2 + 1 = 10$$

The Greek civilization

The Greek civilization is considered as one of the greatest civilizations ever existed due to many of their achievements. To begin with, the Greeks dominated most of the mediterranean sea and expanded throughout Europe and western Asia. They also had a distinct way of eating (they often ate while lying on their sides) and had an inspiring architecture which led the Romans to copy their structure. In addition, the Greeks were not a police society because one third of their people were slaves. ^{now} to conclude, the Greek civilization has reached a level of sophistication that qualified it to be as great as it is nowadays.

$$3 + 3 + 3 + 3 + 2 = 14$$

Appendix 7

Dear teachers,

This questionnaire is aiming at collecting data about different cooperative language learning techniques that are implemented by the written course teachers. We target, in particular, the usage and effectiveness of the Jigsaw technique in EFL classes. We would be extremely grateful if you help us by answering questions relying on your teaching experience in the written expression course.

We guarantee the confidentiality of your responses that will be anonymously reported in the study under investigation. Thank you for your time and collaboration.

Please tick () the box (es) that best suit your answer(s).

Section 01: General Information

Q1. Degree(s) held:

- License (BA)
- Magister/Master(MA)
- Doctorate (PhD)

Q2. How long have you been teaching the written expression course?

- Less than one year
- One year to 5 years
- 6 years and more.

Section 02: Teachers' Attitudes towards Students' Levels in Writing

Q3. Describe your students' levels while writing

- High
- Above average
- Average
- Below average

- Low

If your answer was below average -low, can you tick the reasons?

- Students' unfamiliarity with the topic addressed
- Weak argumentation
- Lack of vocabulary
- Poor grammar and syntax skills
- Mother tongue interference
- Lack of practice
- Lack of motivation
- Absence of feedback
- All of the above

Q4. What do students struggle with when writing an academic paragraph?

- Topic sentence
- Supporting sentences
- Concluding sentence
- Coherence
- Cohesion
- All of the above

Section 3: Teachers' Attitudes towards CLL

Q5. How do you set the number of students in each group?

- 3 to 4
- 5 to 6
- 7 and more

Q6. What criteria do you take into consideration to group students?

- Gender

- Students' levels
- Randomly
- Students select by themselves
- Students' seating

Q7. What role do you take when implementing the CLL techniques?

- Observer till students ask for help
- An active participant through the whole process
- I do not intervene

Q8. Are you familiar with the Jigsaw technique?

- Yes
- No

➤ If yes, how often do you use this method

- Never
- Rarely
- Sometimes
- Often
- Always

Q9. Are students motivated to work cooperatively?

- Yes
- No

Q10. Do students encounter problems when working in groups?

- Yes
- No

Q11. How often do you use these techniques in your class?

	Students Team Achievement Division	Group Investigation	Teams-Games- Tournaments	Jigsaw technique	Learning together
Never					
Rarely					
Sometimes					
Often					
Usually					
Always					

Q12. Do you think that CLL techniques are used mostly for the sake of?

- Learning
- Assessment
- Both

Q13. According to your experience, please indicate how far you agree with the following ideas (1- Totally agree; 2- partially agree; 3- neither agree nor disagree; 4- partially disagree; 5- totally disagree).

	Totally agree	partially agree	neither agree nor disagree	partially disagree	Totally disagree
Jigsaw builds positive relationships among students.					
Jigsaw creates a positive learning environment for students to practice English.					

Jigsaw promotes social skills such as communication, problem-solving skills, interpersonal skills...					
Students gain practice in self-teaching and peer teaching					
Jigsaw produces long-term learning gains.					
Rewarding the group for the successful performance of its individuals is necessary.					

Section 4: Teachers' Evaluation of CLL Techniques

Q14. Do you think CLL techniques enhance students' written production?

- Yes
- No

ملخص

تستعرض هذه الأطروحة دراسة تجريبية لتأثير إحدى تقنيات التعليم التعاوني المعروفة بـ «jigsaw» على الأداء و الكفاءة الكتابية لطلاب السنة الثانية LMD في قسم اللغة الإنجليزي بجامعة محمد خيضر بولاية بسكرة. ارتأت الدراسة جمع وجهات نظر أساتذة مادة التعبير الكتابي في ذات القسم عن بعض الأفكار المرتبطة بتقنيات التعليم التعاوني عموماً وتقنية «jigsaw» على وجه الخصوص ، بناء على هذا تنطلق هذه الأطروحة من فرضية محددة ألا وهي أن تطبيق تقنية «jigsaw» بطريقة علمية منظمة سيحسن مستوى كتابة و تحصيل الطلبة في اللغة الانجليزية كلغة أجنبية . فيما يخص الجزء النظري أحاطت الأطروحة بمعلومات عديدة تخص كل من مهارة الكتابة وتقنية «jigsaw» كجزء من التعليم التعاوني، تلاه الجزء التطبيقي الذي اعتمد على المنهج التجريبي كطريقة لقياس مدى صحة الفرضية المصاغة. بشكل أدق فقد تم أولاً إجراء تجربة تعتمد على عينة عشوائية كمجموعة تجريبية واحدة تتألف من 9 طلبة، وبالتالي فقد تم اعتماد حصتي فحص تمنا قبل وبعد تطبيق ثلاثة حصص تدريسية. وجدنا اختلافاً إحصائياً بين نتائج الفحصين مما أكد على وجود تأثير إيجابي على المستوى الكتابي لطلبة بعد التعرف و استعمال التقنية المذكورة . ثانياً فقد تم اعتماد استبيان مخصص للأساتذة كأداة قياس ثانية للتأكيد على النظرية السابقة لكن للأسف لم يفي هذا الاستبيان بالعرض المطلوب كفاية لان معظم الإجابات دلت على عدم معرفة أغلبية الأساتذة لماهية التقنية المطبقة ، كما أن القلة القليلة منهم يملك التجربة الكافية للحكم على الأفكار المطروحة. اختتمت الدراسة بطرح أهم ما أفضى إليه البحث من نتائج كما تطرقت إلى بعض الصعوبات التي واجهت السير الحسن للأطروحة ، وكذا بعض الاقتراحات التربوية التي من شأنها التعزيز من مستوى و جودة الكتابة باستخدام تقنية «jigsaw».