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**Developing the Writing Skill through the Integration
of Web 2.0 Technology into Classroom Learning:
The Case of Second Year Students of English at
Farhat Abbes University**

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DEDICATION

*This work is dedicated to my parents, my husband, and
my children.*

Abstract

Although Web 2.0 technologies are growing more and more popular among this generation's learners, and are the kernel of research throughout the world, they are still considered an unexplored area of research in Algeria, and evidence of its effectiveness educationally is hitherto indefinite. The current quasi-experimental study investigates the effectiveness of integrating Web 2.0 technology, the wiki, into classroom learning to develop the writing skill as well as the perceptions of applying these tools among 65 undergraduate second year students of English at the Department of English Language and Literature at Setif 2 University, Algeria. It is, therefore, hypothesized that students' writing skill in form and content may be enhanced by the involvement of web 2.0 technology in the form of the wiki. For this end, the quasi-experiment with a pretest-posttest design was followed with the participation of two intact second year groups. The experimental group (N=30) underwent a treatment of studying in class and writing paragraphs using web 2.0 tool, the wiki while the control group (N=35) received writing in class solely. The Mixed method approach was utilized to collect data, including a questionnaire, students' pretest and posttest paragraph scores, students' online paragraphs as corpus, and an interview. The results revealed that there was a statistically significant difference between paragraph writing skills of students in the experimental group and students in the control group. Also, a statistically significant difference was found in paragraph writing within the experimental group before and after the involvement in web 2.0 writing. Besides, participants' perceptions were positive towards the use of web 2.0 to develop their writing skill. The outcomes of the study will be particularly helpful to teachers to enhance the use of web 2.0 technologies in their teaching and learning practices, to students to meet their learning needs and preferences as digital savvy learners, and to curriculum designers to consider technology integration into the curriculum.

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LIST OF ABBREVIATIONS

ACMC	Asynchronous Computer Mediated Communication
CALL	Computer Assisted Language Learning
CF	Corrective Feedback
CLE	Constructivist Learning Environment
CMC	Computer Mediated Communication
EAP	English for Academic Purposes
EFL	English as a Foreign Language
ELT	English Language Teaching
ELTL	English Language Teaching and Learning
ESL	English as a Second Language
ESP	English for Specific Purposes
FL	Foreign Language
FLLs	Foreign Language Learners
ICTs	Information and Communication Technologies
L1	First Language
L2	Second Language
NNSs	Non Native Speaker
NSs	Native Speaker
SCMC	Synchronous Computer Mediated Communication
SLL	Second Language Learners
SPSS	Statistical Package for the Social Sciences
TESL	Teaching English as a Second Language
TL	Target Language
VLEs	Virtual Learning Environments
WCF	Written Corrective Feedback
ZPD	Zone of Proximal Development



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CHAPTER ONE

INTRODUCTION

1. 1. Background of the Study

The landscapes of education worldwide have been transformed in the past decades as a result mainly of globalization and more importantly of the rapid development in the field of information and communication technologies (ICTs). It is no surprise nowadays that the use of technology with its diverse tools and applications is almost not restricted to anyone, and that online tools are more ubiquitous in people's lives formally or informally. Accordingly, the introduction and integration of new technology into education is actually altering the way students learn and teachers teach. The reality is that a shift is witnessed from a traditional conventional way of teaching and learning to a more virtual unconventional one. The latter has the potential to encourage learner-centeredness and autonomy.

Given that our English as foreign language (EFL) students have changed radically with reference to the manner of communication and even the learning, they are no longer the students the "old" educational system was designed for or used to teach. To this end, Prensky (2001) used the term "digital natives" to describe this category of learners whose life and learning is borne on by technology. That is to say, they are learners who were born into the digital world, and master computer and internet skills. They use technology, with its multiple multimedia devices and applications, in almost all the areas of their lives. Integrating technology into the classroom, teachers may meet the changing needs of learners. That said technology integration has actually become a necessity if not an obligation as the whole world nowadays is shifting to this new mode of teaching and learning by either using online learning or blended learning. Besides, adopting this new

mode would increase learner achievement, raise motivation, and enhance learning. Due to such challenges as the increasing numbers of students in the Algerian universities, there is a strong and growing need for greater flexibility in curriculum design and course delivery (Hogarth, 2009) where writing is no exception.

Among a variety of English language proficiency aspects, writing is considered an important skill. Mastering this skill affords ample opportunities for EFL learners both academically and professionally. Yet, given its complexity and the aforementioned challenges, writing development seems to be an issue. In the realm of new technologies, the Web 2.0 tools, particularly wikis, have revolutionized the teaching-learning arena given their multiple affordances, and can thus be integrated into the classroom to develop the writing skill as they proved effective in writing improvement (Mac & Coniam, 2008; Lee, 2010; Kuteeva, 2011; Kessler, 2009)

1.2. Statement of the Problem

English occupies the status of a foreign language (FL) in Algeria. As English becomes a necessity worldwide, learners are required to master both oral and written communication to cope with the global economic demands. English is studied in Algeria for seven years prior to the tertiary level in which the linguistic competence is emphasized with a focus on oral and written. However, at university, students of English still lack the required proficiency to write in English based on the researcher's own experience as a teacher of EFL writing for five years as most second year students are incapable of producing an effective paragraph. lack of writing proficiency, it is worthy to be mentioned, may be due to the fact that writing is perceived by our EFL students as a difficult and complex, but still the most important skill among the other language skills academically and professionally (see Appendix A). Based on the preliminary questionnaire (see Appendix A) conducted with second year students in the department of English language

and literature at Mohamed Lamine Debeghine, Setif 2 University, writing was perceived to be difficult and complex, though a very important skill both academically and professionally. These students reported having difficulties and problems with writing which ultimately inhibit them from writing properly. Some of these difficulties were related to the writing skill per se such as lacking ideas and organization, lacking appropriate vocabulary, struggling with grammar, conventions, punctuation, capitalization and spelling. Additionally, such factors as mix-ability classes, lack of motivation, overcrowded classes, and lack of practice due to time constraints were brought to bear on students' writing problems. Besides, students' answers to the questionnaire items were substantiated by the content analysis (see Appendix H) carried out on 35 students' paragraphs before the experiment which revealed that these students' pieces of writing were loaded with different types of writing errors both in content as related to lack of adequate and relevant support and in form as related to correct grammar, right word choice, conventions of writing, punctuation, capitalization and spelling.

As the approach followed by the teacher researcher is the process approach to teaching writing both in class and online, it is taken at face value that multiple drafting is *sine qua non*. Said in different words, students need to produce subsequent drafts which are revised following feedback until one last error-free draft is reached. In addition, along this writing process, student writers are in constant need of feedback to write effectively as it constitutes an integral part of learning. However, due to the overcrowded classes we have and the increasing number of students the department of English language and literature at Mohamed Lamine Debaghine University receives each year, it was noticed by the researcher in her own classes as well as in other colleagues writing classes that multiple drafting was forcibly substituted by single drafting, and that only few students were lucky to receive feedback on their writings, due to time constraints and the huge number of students.

Having said the above, as technology has penetrated almost every aspect of life from which education is not exempt, and our students are technology savvy who are no longer gratified by the traditional way of teaching and learning, web 2.0 technology can be one possible solution to cater for second year students' writing difficulties and problems. Web 2.0 technology has proved efficient in developing the writing skill due to its multiple affordances.

1.3. Aims of the Study

The ultimate aim of this study is to investigate the extent to which web 2.0 integration help develop students' writing skill with particular reference to the writing quality features, including content, organization, grammar, vocabulary, and mechanics. Equally important, the present study has some sub aims as it attempts to scrutinize students' perceptions toward writing in a traditional class and their writing difficulties, and whether these perceptions would change after the involvement in web 2.0 writing. The study follows the guidelines of the process approach to writing in which stages such as pre-writing, drafting, revising, and editing are deemed substantial to produce an effective piece of writing. Having said that, multiple drafting lies at the heart of web 2.0 writing, where students are required to write different draft before reaching the satisfying one, following the teacher's online written corrective feedback. The latter, being an integral part of the writing process, it is provided constantly to students' first drafts before they are revised. Accordingly, this study further aims at exploring the extent to which e-feedback provided on the wiki is effective in developing writing accuracy and, thus, reducing errors. finally, since web 2.0 are not ordinary to most students, examining students' perceptions of integrating web 2.0 to develop writing is a requisite.

1.4. Research Questions and Hypotheses

In an attempt to find possible solutions to the above mentioned concerns, this study seeks to answer the following questions.

- 1. What are students' writing perceptions and difficulties?
- 2. Would students who are involved in web 2.0 writing produce better paragraphs than students who are not?
- 3. What are students' perceptions of writing and feedback before and after the involvement in web 2.0 technology?
- 4. To what extent did students' writing errors decrease after the involvement in web 2.0 technology? What writing aspect (s) has more developed after the involvement in web 2.0 technology?
- 5. What are students' perceptions of integrating web 2.0 into classroom learning to develop the writing skill?

Building on the above stated research questions, this study states the following hypotheses along with their parallel null hypothesis.

Hypothesis One

There will be significant differences in the paragraph writing of students in the experimental group before and after the integration of web 2.0 technology

Null Hypothesis One

There will be no significant differences in the paragraph writing of students in the experimental group before and after the integration of web 2.0 technology

Hypothesis Two

There will be significant differences in the control group' writing between the pretest and posttest.

Null Hypothesis Two

There will be no significant differences in the control group' writing between the pretest and posttest.

Hypothesis Three

There will be significant differences in the post writing test between the experimental and the control groups.

Null Hypothesis Three

There will be no significant differences between the experimental and the control groups in the post writing test.

Hypothesis Four

The pre- and post-test responses of students in the experimental group in the perceptions to writing and corrective feedback will be significantly different before and after the involvement in web 2.0.

Null Hypothesis Four

The pre- and post-test responses of students in the experimental group in the perceptions to writing and corrective feedback will not be significantly different before and after the involvement in web 2.0.

1.5. Significance of the Study

This research investigates the effectiveness of web 2.0 technology in helping students develop their English writing skill. Studies of this type are scarce, if any, in Algeria according to library and publication inquiry in the different Algerian Universities. Therefore, this research is significant as it provides new insights about the impact of web 2.0 tools on Algerian university students of English writing. Additionally, since it is an unexplored area of research in Algeria, the results would be unexpected as the circumstances and the context are different due to the lack of equipments in university and the large classes. In spite of this, the results of this study will be of significant help in designing syllabi which are based on hybrid modes of learning.

This study is also significant as it introduces university teachers to new technology and makes them understand how it works and what potential it has in developing learning. More importantly, it helps them see that web 2.0 technology is an alternative, yet a complementary mode of learning, which when integrated into traditional classroom learning, can be even more effective. In this vein, teachers can encourage learners to use them more often because they are digital natives. Last but not least, the significance of this study lies in inspiring curriculum designers and stake holders to consider technology integration in the curriculum to open up new learning opportunities for learners especially that it is the new direction of instruction worldwide.

1.6. Overview of the Methodology

This study attempts to investigate the extent to which the integration of web 2.0 technology in the form of wiki helps develop second year students of English writing skill following a quasi-experimental design with pre and post test design. The latter was the most suitable research design as two intact groups of second year students of English were

chosen to participate in the study as experimental and control groups without being randomly selected but rather conveniently. However, the attribution of both groups into experimental and control was done randomly, not conveniently or purposefully. To collect data, the mixed method approach was opted for. While the quantitative tools collected numerical data necessary to test the above mentioned hypotheses and compare students writing scores in both groups in the pre and post tests, qualitative data gauges on corpus analysis of students paragraphs and content analysis of the interview.

Given that this study is quasi-experimental with experimental and control groups and a pre-post test design, an intervention with the experimental group is a *sine qua non*. Namely, the integration of web 2.0 technology in the form of wiki to develop the students' writing skill is planned to be introduced to the experimental group over a period of 14 weeks. Prior to the intervention both groups will take a pre-writing test and a post writing-test immediately after the intervention. A questionnaire with a pre-post design will be administered to students to examine their perceptions of writing and feedback before and after the integration of web 2.0 technology. Also, corpus analysis of student paragraphs in the interval period of the experiment will be carried out to check whether students revise when they receive feedback on form or content, to check which aspect has students improved in more. Finally, a post treatment questionnaire and an interview will be distributed and conducted with students to provide insights about their perceptions towards the integration of web 2.0 technology to develop their writing skill.

1.7. Structure of the Thesis

The present thesis is organized according to the five chapters which are divided into three parts, namely the general introduction, the literature review and theoretical part, and the three remaining are the field work part. The first chapter, which is the general introduction, encompasses seven sections which are respectively, background of the study,

statement of the problem, aims of the study, research questions and hypotheses, significance of the study, overview of the methodology, ending up with definition of terms.

The second chapter provides a review of the literature indicating, in the first place, the theoretical background and conceptual framework underlining the study. It is devoted to discuss the writing skill with particular reference to definition of writing the approaches of teaching writing, feedback and its types, and writing quality features in the first section. Technology integration, writing and technology, the use of web 2.0 in instruction, the affordances of web 2.0 form the second section.

Chapter three, research methodology, hones on the research framework of the study. It opens with an explanation of the quasi experimental design and the mixed method approach along with the rationale behind opting for this approach. It then identifies the research setting where the study takes place, and describes the population and sample, and sampling procedure. The data collection instruments and procedures, data analysis tools, and piloting of the study were thoroughly explained as well.

Chapter four presents the findings of the study with respect to the research questions along with elaborate discussions of these results in relation to the stated hypotheses by ascribing interpretations and relating the findings to empirical findings of related research to vindicate these findings.

Chapter five presents conclusions namely, recommendations, limitations of the study suggestions for future research, and a general conclusion which serves as a reminder to the reader of the main points to be covered in the work.

1.8. Definition of Terms

Technology integration: Technology integration is the use of technology tools such as computers effectively and efficiently in the general content areas in education. Integration is incorporating technology in a manner that enhances student learning.

Blended learning: is the combination of instruction from two historically separate models of teaching and learning: traditional F2F learning systems and distributed learning systems. It also emphasizes the central role of computer-based technologies in blended learning (Graham, 2012, p. 1).

Web 2.0 technologies: The evolution of web usage and invocation of new technologies and standards that facilitate social networking, provide access to a wide network of services by the introduction of media and more complex data including audio and video. Web 2.0 participatory technologies include wikis, blogs, instant messaging, internet telephony, social bookmarking, and social networking sites

Computer Mediated Communication (CMC): “The processes by which people create, exchange, and perceive information using networked telecommunications systems that facilitate encoding, transmitting, and decoding messages” (December, 1996).

Information and communication Technologies (ICTs): An umbrella term that includes all technologies for the communication of information. The technology tools may include mobile technology, email, two-way instant messaging, chat rooms, blogs, personal web pages, CD/DVD, radio, television.

The wiki: It is a website that allows users to collaboratively edit and share content. Individuals can add, delete or modify content using a web browser.



Digital natives: It is a term coined by Prensky (2001) referring to the generation of students or people who were born or brought up during the digital age characterized by the use of computers and the internet.



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CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

Drawing on related research and theory underpinning this study is fundamental in order to have a comprehensive understanding of the research topic. This chapter is divided into two main sections: 1) an overview of the writing skill, and 2) web 2.0 technologies integration and writing. The first section will focus on the different approaches to teaching writing, with a particular emphasis on the process approach to writing since it is the sustaining approach of this study. Also, feedback will be discussed especially teacher written corrective feedback which is the type used in this study. The second section of this chapter, on the other hand, will canvas writing and technology, starting with the theoretical frame of the study and technology integration. Besides, online learning and web 2.0 technologies will be explained in relation to writing. Of particular reference, wikis will be discussed as writing tools. Finally, the review will focus on the educational affordances of web 2.0.

2.1. The Writing Skill

Writing is a fundamental skill academically, professionally, and socially. Academically, a learner's progress and language proficiency are measured against his/her writing abilities. Professionally, writing proficiently is also required. Socially, writing plays a significant role in promoting successful interactivity and communication. Yet, given its complexity and difficulty especially to FL learners, not only does the mastery of the writing skill necessitate time but also opportunities to write as well as quality instruction (Mc Arthur, Graham, Fitzdzrald, 2016).

2.1.1. Defining Writing

“writing is a complex social and cognitive process that requires shared understanding with readers about purposes and forms, knowledge of content, proficiency in language, as well as motivation” (McArthur et al., 2016, p.1). This indicates that writing necessitates not only time but also opportunities to write and quality instruction (McArthur et al., 2016). Bazerman (2016) views writing as a “social technology” that is designed to communicate people. This implies that writing, compared to speaking, is not a naturally acquired skill, but rather it is a learnable skill (Grabe & Kaplan, 1996), a technology which must be acquired and practiced by experience. Sampson (1985) defines writing as “to communicate relatively specific ideas by means of permanent, visible marks (p.26).

2.1.2. The Nature of Writing

Listening, speaking, reading, and writing are the four language skills that need to be learnt by learners of English. Writing is a means of communication along with speech. To understand the nature of, writing, a comparison with the speaking skill is a requirement, given that both are productive skills as they involve producing language rather than receiving it (Spratt, Pulverness, & Williams, 2005). The controversy about the relationship between writing and speaking where one is deemed superior to the other was settled and reconciled, suggesting that each skill has its own characteristics which distinguish it from the other one. With that said, despite being productive skills, writing and speaking are different in a plethora of ways (Harmer, 2001; 2004). These differences may cover such areas as textual features, sociocultural norms, patterns of use, and the cognitive process (Weigle, 2002). Brown (2001, p. 303-304) attributes certain characteristics to the written language:

- **Permanence:** spoken language is fleeting; once you speak an utterance, it vanishes (unless recorded). The listener is called upon to make immediate perception and

storage. Written language is permanent and therefore, the reader has an opportunity to return many times, if need be, to a phrase, a sentence, or a whole text.

- Processing time: as a corollary of permanence is the processing time that the reader gains by reading at his/her own pace unlike speaking where the listener is forced to follow the rate of delivery.
- Distance: the reader can interpret the messages sent by the writer in a different place and time, with only the texts at hand as clues for comprehension.
- Orthography: speaking possesses features such as stress, rhythm, juncture, intonation, volume, voice quality settings, and nonverbal clues, all of which help to enhance the message. In writing, however, these features are absent, where only inferences and interpretations available to the reader to understand what is written.
- Complexity: spoken language tends to have shorter clauses connected by coordinating conjunctions while written language has longer clauses linked by subordinating conjunctions.
- Vocabulary: written language uses a larger variety of lexical items compared to spoken language whose vocabulary is limited. This is due to long processing time allocated to the writer in order to be precise, and also due to formal conventions of writing.
- Formality: writing is more formal than speech. Formality refers to certain forms that written language must adhere to. For example, writing is characterized by rhetorical and organizational formality in essay writing that demands a writer's conformity to conventions such as topic and rhetorical pattern.

According to Weigle (2002), writing and speaking are used in two different settings, for different reasons, to meet different communication goals. In addition, both skills require different cognitive processing. The writer does not have to devote cognitive strategies to maintain the flow of conversation such as filling pauses which is the case of the speaker.

In writing, writers have more time and energy to spend on cognitive activities due to the absence of communicative pressure put by the addressee. Nevertheless, the absence of a face-to-face addressee does present extra challenge to the writer to be more explicit about the information provided, taking into account such elements as topic, audience, tone, which themselves require more cognitive energy.

Writing is a physical, mental, and cognitive activity. To start with, writing is a physical act, as the writer has to put words together to make sentences and ideas. Secondly, writing is a mental activity because the writer has to generate ideas and organize them in a coherent way to facilitate understanding to the reader (Brown, 2001). Furthermore, writing is a cognitive activity (Hayes & Flower, 1980). It is a process which is recursive and not linear where the writer goes from planning, to putting thoughts into texts, to revising.

Hayes (1996) presents a cognitive process which includes text interpretation, reflection, and text production. The three processes are not merely used in drafting but also in revising. Text interpretation involves creating internal representations from linguistic and graphic input. Reflection, as a second cognitive activity of writing is a process of creating new internal representations from the existing ones. Finally, text production entails the production of new written linguistic or graphic output based on the internal representations.

An integral part of writing, according to Hayes model (1996), is reading to evaluate and revise with the aim of detecting problems and discovering improvements. The process of reading involves decoding words and applying grammar knowledge. According to Hayes (1996), poor reading skills, inadequate working memory, and lack of awareness may result in revising local errors, which are related to grammar and mechanics, and do not go beyond sentence level; global errors which are related to content and organization are overlooked. In addition, the social and cultural aspects of writing should be taken into

account by considering topic, audience and genre appropriately depending on the writing situation.

2.1.3. The Features of Writing

Writing is a complex intellectual activity that demands the mastery of many language features. One categorization of writing features is the micro-macro dichotomy. Brown (2001, p. 342-343) devised a list where he pinpoints this dichotomy. First, micro writing features incorporate producing graphemes and orthographic patterns of English, producing writing at an efficient rate of speed to suit the purpose, producing an acceptable core of words and using appropriate word order patterns, using acceptable grammatical systems such as tense, agreement, pluralisation, patterns and rules, expressing a particular meaning in different grammatical forms, using cohesive devices, and using the rhetorical forms and conventions.

The macro skills of writing, on the other hand, include accomplishing the communicative functions of written texts according to form and purpose, conveying links and connections between events and communicating such relations as main idea, supporting ideas, new information, given information, generalization and exemplification. Also, distinguishing between literal and implied meanings when writing, correctly conveying culturally specific references in the context of the written text, and developing and using a battery of writing strategies such as pre-writing devices, writing with fluency in the first draft, using paraphrases and synonyms, and using feedback for revising and editing are considered as macro skills.

Writing involves several sub-skills among which some are related to accuracy (Spratt, Pulverness & Williams, 2005). Writing accurately bears on spelling correctly, forming letters correctly, writing legibly, punctuating correctly, using correct layouts, choosing the

right vocabulary, using grammar correctly, joining sentences correctly, and using paragraphs correctly. The other sub-skills which not related to accuracy involve having a message and successfully communicating it to others. This could be accomplished when the writer possesses adequate ideas which are coherently organized and which are expressed appropriately.

In addition to accuracy and fluency, writing has also mechanical components which need to be emphasized at particular stages of the writing process. These components are handwriting, spelling punctuation, and the construction of well-formed sentences, paragraphs, and texts (Harmer, 2004). Nonetheless, writing is more than mechanics as it incorporates such elements as coherence and cohesion. These two aspects are interrelated and closely connected as one serves the other, and both are necessary to make writing accessible (Harmer, 2004).

Cohesion is defined by Connor (1996) as “the use of explicit linguistic devices to signal relation between sentences and parts of texts” (p.83). Harmer (2004) distinguishes between lexical cohesion which involves repetition of words and lexical set, and grammatical cohesion which consists of using reference pronoun, article reference, tense agreement, linkers, and substitution and ellipsis. Coherence, on the other hand, refers to “how a text is organized, how the ideas are developed, and how the content hangs together” (Connor, 1996, p.172). Said otherwise, it bears on how well the text can easily be understood and make sense to the reader in that ideas should flow logically and smoothly. Coherence is achieved when the writer uses logic which the reader can follow even with the absence of cohesive devices. If the text is coherent, the writer’s purpose and line of thought are easily understood by the reader. Additionally, coherence is achieved by the writer’s way sequencing information depending particularly on genre. Nevertheless, cohesion does not necessarily create coherence in that a text may be coherent without cohesion.

Bell and Burnaby (1984, as cited in Nunan, 1989) argued that writers are required to master certain writing aspects at sentence level, including content, formality, structure, vocabulary, punctuation, spelling, and letter formation, and beyond sentence level, including structuring and integrating information in paragraphs using coherence and cohesion.

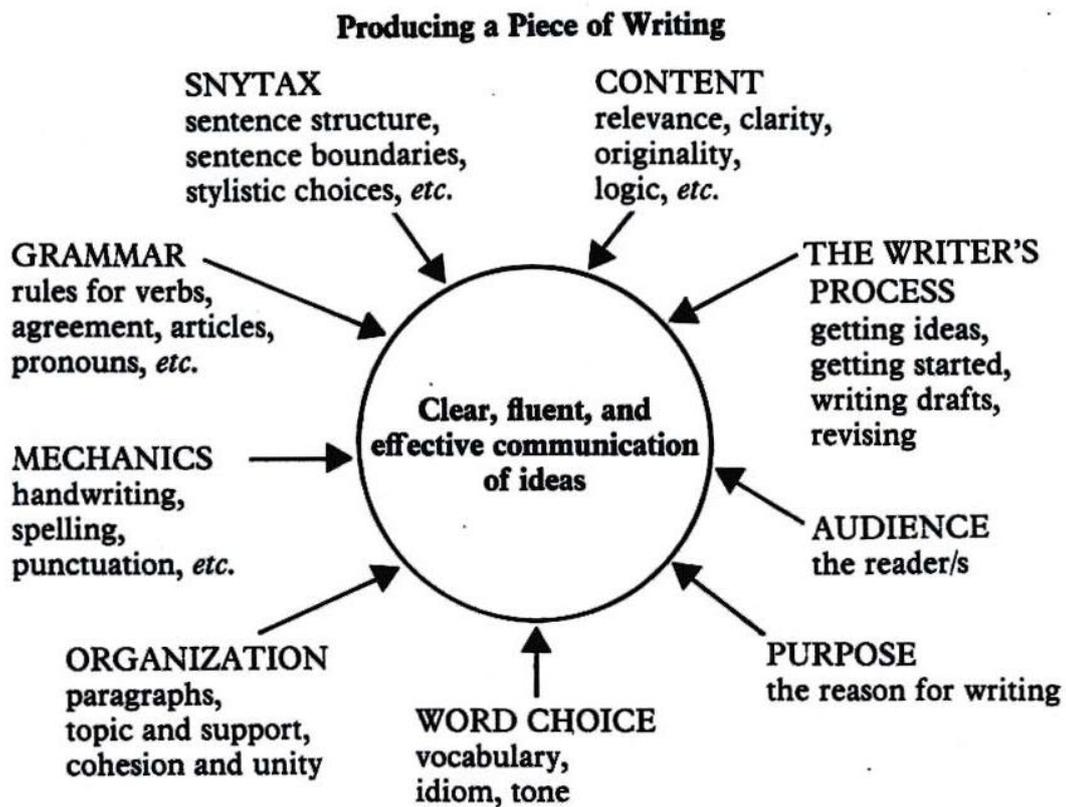


Figure 2.1. The writing features (adopted from Raimes, 1983, p. 11)

As shown in figure 2.1, Raimes (1983) grouped writing features under six main headlines: content, organization, syntax, grammar, word choice, and mechanics. Moreover, he added three other features which are the purpose of writing, the audience, and the process followed in writing.

2.1.4. Writing Difficulties of Foreign Language Learners

Numerous reasons may lie behind students' difficulties in writing given the complexity of the writing skill (Schumm, 2006). For this reason, teachers need to ponder on and assimilate the type of the difficulty as being linguistic, cultural differences, cognitive, lack of writing opportunities at home or school, language disorders, or motivation (Schumm, 2006). Students may find difficulties because writing requires planning which in turn is based on knowledge generation especially when it is related to a specific genre. The difficulty then arises due to lack of exposure to such genres and language. Also, because writing requires an arduous use of language, students find it difficult to use appropriate vocabulary and build coherent sentences and even paragraphs because of the lack of exposure and underdeveloped expressive language of foreign language learners (FLLs). Since writing involves a considerable knowledge of conventions of English writing including spelling, grammar, capitalization, and punctuation. By the same token, writing as a process needs positiveness, persistence, and patience on the learners' part; students with a negative attitude towards writing, with a lack of perseverance, and with impatience to finish the product may encounter writing difficulties (Schumm, 2006).

2.1.5. Writing Instruction in the EFL Context

In the 1970s, second language writing was overlooked due to the predominance of speaking in the field of applied linguistics (Matsuda, 2001) writing was viewed as "simply the graphic representation of spoken language" (Brown, 2001, p.335) and because research on writing coincides with research on other language skills especially speaking. The written performance and the oral performance were alike except in that the former uses graphic signals while the latter uses auditory signals. Also, the early attempts to teach second language (L2) writing arose mostly from first language (L1) approaches to teach writing (Silva, 1993), and second language writing research was strongly influenced by

research on L1 writing. To the extent that the composing processes were thought to be identical, L2 teachers were recommended to adopt L1 writing graphics to teach the L2 (Silva, 1993). However, in his L2 writing survey, Silva (1993) discovered that the L1 and L2 composing processes are different in that L2 writers planned less, used considerably fewer words, made more errors, are less effective in organizing material, are poor in writing appropriate grammar and mechanics, and have limited vocabulary.

Leki and Carson (1997 as cited in Silva & Matsuda, 2001) provided many points of difference for L2 writers which can be summarized as follows:

- Epistemological issues (distinct cultural socialization and belief systems).
- Functions of writing (which are wider for L1 writers who have a wide potential range of functions; writing topics (personal expression and humanistic individualisation)
- Knowledge storage (L1-based knowledge creates complexities for L2 writers)
- Writing from reading (add reading skills complexities for L2 writers)
- Audience awareness (L2 writers sense of audience may be culturally different from L1 students')
- Textual issues (cross-cultural discourse patterns, contrastive rhetoric)
- Plagiarism (ownership of words Vs honoring authors and their writing)
- Memorization, imitation, quotation (try out the L2 students' right to their own language (whose English is right?))

As a corollary, it was clear that more appropriate approaches should be devoted to teach writing to L2 and thus EFL learners as Silva (1993) called for an L2 writing theory of its own. Along with this, it was a requirement for teachers to be aware of the sociocultural and linguistic differences of the L2 and EFL learners, requiring different ways of assessment as well.

As L2 writing began to emerge as a discipline of its own (Brown, 2001), in the early stages of writing development, students just imitated English letters, words, and sentences with the purpose of learning the conventions of the orthographic code (Brown, 2001). As early as World War II, L2 writing instruction began to be a concern to teachers and administrators. This is due to the increasing number of international students in the United States especially at research institutions (Matsuda, 2003). This emergency situation forced teachers and administrators to create special composition courses to their students. As a corollary, L2 writing instruction became a pivotal issue in conferences. In addition, the material provided to L2 writing in the 1950s was originally intended for the teaching of speaking, but L1 textbooks were not used (Matsuda, 2003). Second language learning was dominated by the audiolingual approach where speech was primary and writing was merely a tool that is used to reinforce speech in that it emphasized grammar and syntax mastery (Raimes, 1983). Teachers developed different techniques to assist students to reach this goal. The concern shifted from composition studies to second language studies.

In the 1960s, writing issues were divided into L1 and L2 components where L2 writing became part of second language studies or Teaching English as a Second Language (TESL), resulting in the disciplinary division of labor. Second language writing emerged as a sub-discipline (Ferris & Hedgcock, 1998). Following this, a plethora of pedagogical approaches was suggested to teach writing. Yet, due to the lack of writing pedagogy, English as second language (ESL) specialists used the oral and audiovisual approaches to teach writing (Matsuda, 2003). As a reaction to free writing, which targeted fluency and neglected form, controlled writing, which focused on sentence-level structure, came to exist (Matsuda, 2003). This approach was influenced by Behaviourism that consisted of substitution exercises to master sentence structure relying on habit-formation without any creativity on the part of the writer. Students are given sentences to copy or manipulate grammatically by altering a given structure, say questions to statements or present to past,

or plural to singular throughout the text. This intensive writing which reinforces grammar tends to kill any type of creativity on the part of learners (Brown, 2001; Raimes, 1983). On this basis, students can write considerably and avoid errors simultaneously. This approach, it became evident, left no room for errors to occur.

As a backlash to the shortcomings of the controlled approach which impeded students from producing original sentences of their own guided writing emerged (Matsuda 2003; Brown, 2001). In guided writing, students were given a model to follow, an outline to expand with limited guidance in the form of stimulations (Brown, 2001; Pincas, 1982).

As both guided and controlled writing focused on sentence development, they were overlooked because they failed to bear on logical organization (Matsuda, 2003). Kaplan (1966) argued that writing exceeds sentence-level structures as paragraphs are also specific to languages and cultures should, thus, be considered. This gave rise to rhetorics or organizational structure and later contrastive rhetoric came to exist, contrasting the organizational structures of written discourse in paragraphs (Matsuda, 2003). Following this, two approaches have dominated L2 writing instruction, namely the product approach and the process approach for which a whole subsection will be devoted for discussion.

2.1.6. Approaches to Teaching Writing in L2 Context

Three main approaches to teaching writing have been advocated in the past few decades of English language teaching namely, the product approach, the process approach, and genre approach. Although each one of the three approaches has its own significance, and plays an important role in the teaching and learning of writing in the EFL context (Al-Mahrooqi, Thakur, & Roscoe, 2015) the very kernel of this study is the process approach, with a considerable attention being paid to the product. According to Al-Mahrooqi et al., (2015), the implementation of any of the approaches to teaching writing mentioned above

hinges upon the curriculum, among other factors. In this vein, the second year writing program in the Algerian Universities is solely based on paragraph and essay writing, excluding genres writing. Against this background, the genre approach falls outside the scope of this research as it sheds light on teaching a list of genres to students including: diary writing, letter writing (business and personal), autobiobiography, to name but a few. In return, students to whom genre writing is taught are expected to produce the amalgam of genres, respecting their social and linguistic conventions.

2.1.6.1. The product approach

The product approach to writing was prevalent in the 1960s and 1970s (Hyland, 2004). It is the outcome of the alliance between structural linguistics and the behaviourist learning theory of second language learning which were mostly prevailing during the 1960s (Silva, 1990). The product approach focuses on the written text with considerable attention being paid to language structure. On the summit of its focus are accuracy, grammar, and lexical knowledge which are a sine qua non to teach writing (Augustin Llach, 2011). In other words, elements such as precise word choice, accurate syntactic patterns, morphological inflections, the use of cohesive devices, when combined all together into a coherent piece of writing, are what constitute a successful piece of writing (Hyland 2003; Mastuda, 2003; & Silva, 1990). As a result, poor and inadequate writing skills are reflected in lexical and grammatical error commitment (Augustin Llach, 2011). Thus, producing extensive pieces of writing is required to learn and develop writing (Kroll, 2003). Particularly, grammar and lexis are overemphasized by the product approach, and writing is viewed as a vehicle through which learners' vocabulary and grammar are strengthened (Hyland, 2003; Silva, 1990). In this sense, writing is not an end in itself.

Leki (1991) referred to the product approach as the text-based approach in which students' errors were prohibited. As a consequence, error correction was widely

researched and highly valued as the concern of the product approach was on how best to eliminate errors not on how to correct them (Leki, 1991). In this approach, students are merely provided with a model text to imitate; therefore, learners' writing development is considered to be the output of imitating these model texts provided by the teacher (Hyland, 2004). On these grounds, writing is nothing but practicing and reinforcing grammar patterns through habit formation.

This process is composed of four stages (Hyland, 2004) commencing by *familiarization*, where learners are taught certain grammar and vocabulary features by virtue of a text. The second stage is *Control*, where learners are guided in their writing, having to select fixed patterns from a substitution table provided by the teacher. The third stage is *imitation*, where students simulate a model text in the guided writing; finally, *application*, in which students use the patterns they have developed to write in the free writing stage. It is noteworthy that during the controlled writing stage, students practice writing by means of gap filling, sentence completion, and tenses' transformation in a short text, targeting accuracy achievement and error avoidance. In this vein, writing is assumed to be a "combination of lexical and syntactic forms" (Hyland, 2004, p. 4), and quality writing is the display of knowledge of such form alongside knowledge of the rules that are used to create texts. This said, effective writing is characterized by accuracy and clear exposition whereas no room is devoted to meaning and communicative content.

Notwithstanding, the predetermined sentences are very restricted in context, hindering students from expanding beyond them, or writing in different writing situations rather than the ones they were provided. Howbeit, Hyland (2003) argued that measures of syntactic complexity and grammatical accuracy can never be indicators of a student's progress in writing since the objective of writing instruction is not training in explicitness and accuracy, on the grounds that every text constitutes a response to a given communicative

setting. In despite of the importance of developing surface forms in writing, an understanding of how the meaning students desire to convey is shaped by words, sentences, and discourse is equally important and inevitable. Implementing formal features alongside content in writing is more likely to ensure writing quality which mingles both aspects of writing development. Accordingly, this study is based on the process approach without disregarding the form which is equally important to writing development.

2.1.6.2. The process approach

Cuming (1998) argued that “writing is text, is composing, and is social construction” (p. 61). This implies the shift in focus from product to process to sociocultural contexts of writing. Building a theory about the nature of L2 writing, the process approach to writing evolves for the most part from fields like English for specific purposes (ESP), Contrastive rhetoric, written discourse analysis, functional language use, and English for Academic Purposes (EAP) (Silva & Matsuda, 2001). In addition, theories about L2 writing counted on English L1 writing research and theories of the writing processes during the 1970s and 1980s (Silva & Matsuda, 2001). Learners in the process approach are accentuated as active writers and independent producers of texts and creators of language (Hyland, 2003). The dogma of this approach is teaching learners the different stages of writing to perform a writing task (Hyland, 2003). That is to say, this approach focuses on the process of how the students go from generating ideas to transforming them into effective pieces of writing.

The process approach regards writing as a cognitive process comprising several phases that interact (Grabe, 2001; Hyland, 2003; Kroll, 2003; Matsuda, 2003; Wang & Wen, 2002; Weigle, 2002). Flower & Hayes (1981), the primary advocates of the process approach, refer to planning, drafting, revising, and editing as the main stages of this process. Additionally, the stages of the writing process are not linear but rather recursive,

interactive, and simultaneous. To put it in another way, all work is viable for review, evaluation, and revision prior to producing no text at all (Hyland, 2003). The writer can go back to any stage if need be to add new ideas or to rewrite the text after receiving feedback. It is only through going over these different stages of the composing process that learners can learn to write (Augustin Llach, 2011). As advocates of the cognitive theory, which considers writing process to be a process of cognitive problem solving, Flower and Hayes (1981) listed four characteristics of writing:

- The process of writing is best understood as a set of distinctive thinking processes which writers organize in the art of composing.
- The writing process has a hierarchical, highly embedded organization in which any given process can be embedded with any other.
- The act of composing itself is a goal-directed thinking process guided by the writer's own growing network of goals.
- Writers create their own goals in two key ways: by generating both high-level goals and supporting sub-goals which embody the writer's developing sense of purpose, and then, at times, by changing major goals, even establishing entirely new ones based on what has been learnt in the act of writing (p.366). Figure 2.2 demonstrates the writing process as proposed by Flower and Hayes (1981).

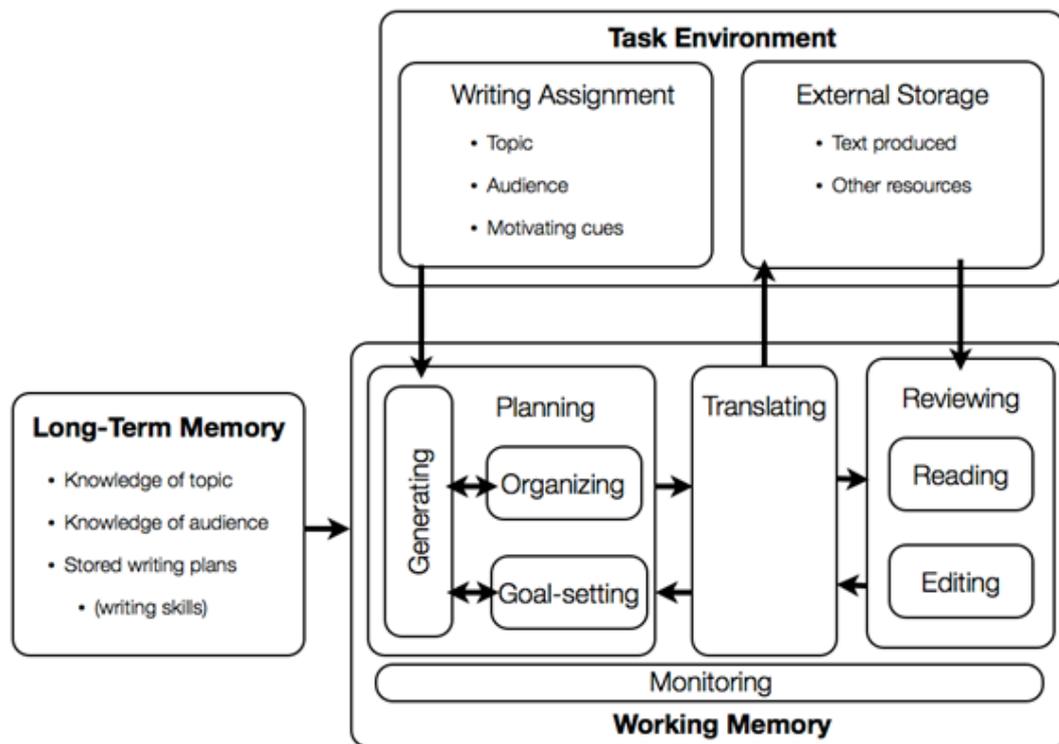


Figure 2.2. Flower and Hayes (1981) writing process model

In addition, the process approach is based on communication and meaning expression (Silva, 1990; 2000; Zamel, 1983). Discourse and contextual factors of language use such as audience, aim, and content of a particular culture are all taken into account in the process model, where writing is rather considered a social activity (Hyland, 2003; Weigle, 2002). Form is as important as content in the process approach.

The teacher's role is, therefore, to guide students along the process to generate and refine ideas, with no particular attention paid to form at the point of generating ideas. Specific pre-writing activities can be designed to aid students generate adequate ideas about the content in which techniques such as brainstorming, outlining, journaling, clustering, among others can be utilized Hyland, (2003). Following prewriting, students start drafting in which multiple drafts are required, extensive feedback is provided and

content-text revisions are made, maintaining surface correction to the editing stage (Raimes, 1992). While teaching these processes to students is crucial, raising students' metacognitive awareness about these processes is a priority (Raimes, 1992). The teacher's response to students' writing is fundamental (Kroll, 2003) not only because it amplifies students' motivation to write, but also because it is an opportunity for teachers to provide overt correction and teach explicit language. Despite that error correction is at issue, it plays an important role in guiding learners to move from one stage to another in the writing process, accompanied by teacher or peer feedback (Ferris, 1997). According to Ferris (2011), the process approach is a strong advocate of corrective feedback (CF) provision as it suggests that teachers should provide learners opportunities to write multiple drafts with substantive revision and feedback while still in the process of writing and not at the end.

Because the process approach is the dominant approach in L2 writing teaching today (Hyland & Hyland, 2006), and "remains popular and convincing" (Hamp-Lyons, 1991, P.140), it was selected in this study as it is the approach used in the second year writing syllabus being the most suitable approach to teach beginner writer students, who are second year students, paragraph writing. In sum, a synthesis of the different writing orientations constitutes taking the best from each approach (Hyland, 2006) depending on the nature of research.

2.1.7. The Writing Process

The writing process provides writers with specific steps or stages which need to be followed to complete a piece of writing (Caswell & Mahler, 2004). Seow (2002) argued that the writing process comprises four major stages, namely planning, drafting (or writing), revising (or redrafting), and editing. As shown in figure 2.3, these stages are not sequential or put in order, but rather they are recursive. This suggests that writers may go

back and forth to the different stages in the writing process, if need be. Students writers can re-plan, re-draft, and re-edit even when they think they have reached the final draft.

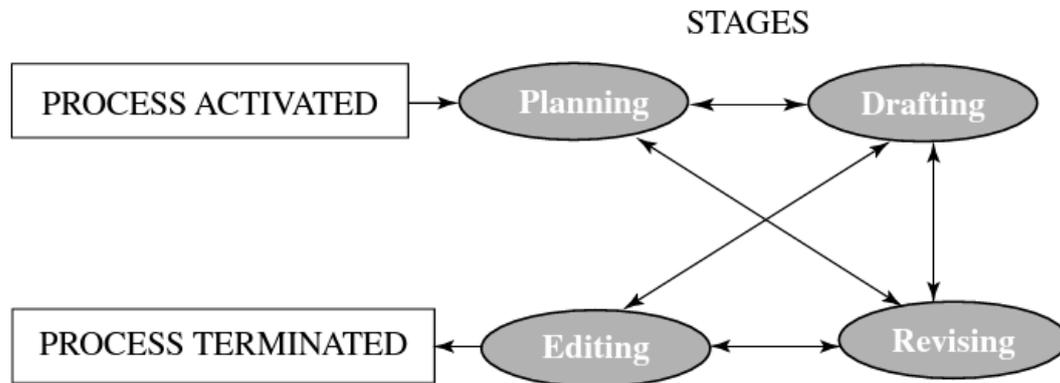


Figure 2.3. The stages of the writing process (adopted from Seow, 2002)

In the writing process, students are taught problem-solving skills which will habilitate them to achieve specific goals in each stage (Seow, 2002). In addition, teachers need to plan specific activities to develop specific writing skills at each stage. Following are the four stages of the writing process as suggested by Seow (2002):

Planning: It is also referred to pre-writing. It is a classroom activity that prepares students to write, and it consists of generating ideas and thoughts. The teacher can provide students with different pre-writing activities such as: brainstorming, clustering, free writing, and asking *journalist* questions (what, when, where, who, and how). N all these activities, spontaneousness is a requisite in that students focus on writing everything that crosses their minds without worrying about correctness and form, nor about how much they have generated.

Drafting: It is also known as writing where a satisfactory amount of information and ideas is congregated, and students may start writing the first draft. At this stage, fluency is the students' primary concern which means that grammatical accuracy and neatness should be

completely disregarded. It is highly recommended that students consider their audience when writing (teacher, class mates, family members, or friends) in order to adopt a well-suited writing style and tone which give direction to their piece of writing.

Revising: In revising, student writers make changes not corrections to their piece of writing at meaning and ideas level depending on the feedback they receive from their teacher or peers. This stage could be the most challenging and fearsome stage for students as they ignore what needs to be done (Caswell & Mahler, 2004). Students may check what was written to add new or more ideas if they think what was written is insufficient. Therefore, revising is carried out to ameliorate content and the organization of ideas so that they are understood by the audience.

Editing: This stage is about correcting surface-level errors such as grammar, spelling, punctuation, diction, and sentence structure. Students edit their papers as they prepare to write the last draft to be evaluated by the teacher. Editing is preferable to be left by the end so that students focus is more on content and the flow of ideas which could be interrupted by corrections.

To conclude, the stages of the writing process are interrelated as one stage helps achieve the next one. If students learn how to appropriately proceed in each stage, the quality of their writing will develop. More importantly, both teachers and students need to understand that each stage is important and does not replace the other because each stage helps accomplish a certain objective.

2.1.8. The Role of the Teacher in the Writing Process

Learning another language other than your own can be a long and complex challenge. Learning a language implies learning culture, way of thinking, feeling, and acting in the target language (Brown, 2000). To ease the task of learning to students, teachers ought to

be aware of the diverse variables that are at stake when learning a language. Teaching is “guiding and facilitating learning, enabling the learner to learn, setting the conditions for learning” (Brown, 2000, p.16). Teaching writing is pivotal; when teaching writing teachers’ kernel task is to create opportunities for learning. The writing-as-process view of writing attributed different roles to teachers (Calkins, 1991). From this perspective, teachers are viewed as mentors who assist the writers through the various stages of the writing process. Also, teachers are feedback providers to students’ writing during all the stages of the writing process. More importantly, the teacher’s core mission is to provide a writing-rich environment where students write in a healthy atmosphere and support each other in writing.

Myles (2002) argued that teachers need to motivate students to take risks with their writing, provide frequent feedback to prevent fossilization of errors, and provide clear models of written products. While composing, it is necessary that teachers provide a large amount of modeling and support to students (Schumm, 2006).

Harmer (2007) attributes three distinct roles to the writing teacher: teacher as motivator, teacher as a resource, and teacher as feedback provider. To start with, in teacher as motivator, the teacher is required to motivate the students and create the right conditions for students to generate ideas by raising their awareness towards the importance of the step. Secondly, in teacher as a resource, the teacher needs to be alert to supply the necessary information and language whenever asked for. More importantly, students need to feel the teacher’s availability by proffering advice and suggestions constructively. Thirdly, in teacher as feedback provider, it is necessary that the teacher responds positively and encouragingly to students’ writing when providing corrections by selecting what and how much to focus on depending on the students’ needs.

It is also important that writing teachers accomplish certain tasks prior to, during, and after the writing process in order to help students become better writers (Harmer, 2004). These tasks can be summarized as follows:

- 1) Demonstrating: writing conventions and genre constraints need to be demonstrated by the teacher to make students aware of the language used to be able to perform specific written functions.
- 2) Motivating and provoking: when students face difficulties in finding words and ideas, teachers may help by provoking students to generate ideas and motivating them to write about the topic.
- 3) Supporting: teachers may support student writers with ideas and means. During the writing process, teachers need to be supportive and available to assist students to conquer their writing difficulties.
- 4) Responding means reacting to the content by making suggestions to make it better. Responding, however, does not mean grading a final draft, and thus, it can happen at any stage.
- 5) Evaluating: unlike responding which targets content, evaluating focuses on correcting and grading the piece of writing to enable students to know their errors.

As a summary, the role of the teacher in the writing process is one of a facilitator and coach and not an authoritative (Brown, 2001). This implies that the teacher responds to his/her students' writing by offering assistance in the process of generating ideas without imposing his/her thoughts, in the revising stage by clarifying ideas to students, and in the editing stage by correcting students' errors to make them aware of the errors they make.

When all these roles are effectively played, student writers can successfully accomplish the objectives set in every stage.

2.1.9. The Concept of Error in Writing

Ferris (2011) defines errors as “morphological, syntactic, and lexical forms that deviate from rules of the target language, violating the expectations of literate adult native speakers” (p.3). During the 1950s and 1960s, errors were considered negative signs of students’ learning, and thus should be prevented from happening (Bitchner & Ferris, 2012). This behaviourist stance was justified by the concern of bad habit formation if errors are tolerated; therefore, corrective feedback is provided, not to treat the error, but to prevent it (Bitchner & Ferris, 2012). On the other hand, errors were no more negative indicators of learning with the cognitivists by whom errors were considered as signs of complex mental process, operating inside the learner’s mind when the target language (TL) is acquired (Bitchner & Ferris, 2012).

2.1.9.1. Types of errors made by EFL/ESL writers

Although both native and ESL learners make errors in writing, the errors made by L2 writers are different (Ferris & Hedgcock, 2005). A distinction is made between global and local errors; global errors are those which affect the reader’s understanding, and which include problems of clarity and organization. Local errors, on the other hand, are related to sentence-level errors, and do not result in misunderstanding. Ferris (2002) emphasized that teachers need to more attentive to students’ most frequent errors and global errors asserting that “errors that should receive the greatest attention should include errors that interfere with the comprehensibility of the text” (p.22). L2 and FL writers make both kinds of errors (Craig, 2012).

Another distinction is made between treatable and untreatable errors (Ferris, 2002; 2009). For Ferris, a treatable error is the one which is rule-based. These errors can then be treated if the L2 or FL writer can remember the rule. The untreatable error, however, is an error which is related to a wrong word choice or a misunderstanding of usage such as preposition use. Untreatable errors necessitate more extensive feedback unlike treatable errors which can be remedied by the teacher via locating the error and providing comments.

Overt and covert is another dichotomy of errors made by ESL/ EFL writers (Corder, 1981). The former refers to ungrammatical sentences and the latter refers to grammatical, well-formed sentences, yet do not respect semantic context.

2.1.9.2. Error indicators

In how to indicate errors, James (1998) suggests that learners' ignorance of target language norms should be judged according to *grammaticality, acceptability, correctness, strangeness, and infelicity*. In other words, students' texts are weighed against these criteria to analyze their inaccurate language productions. However, basing students' writing errors on native speakers' language (NS) cannot be always reliable as the majority of teachers in foreign language contexts are not natives. According to Ferris & Hedgcock (2013), the errors committed by non-native speakers (NNS) are different from the errors committed by their native speaker counterparts. Teachers, thus, fail to provide a "perfect model" to learners, leaving many errors uncorrected (Pawlack, 2012). To help them decide which errors should be corrected, teachers may consider those errors that hinder communication significantly, that happen frequently, that have stigmatizing effects on the reader, and that are treatable (Ferris, 1994, 2002).

As early as (1975), Burt suggested that *global* errors or errors that affect the organization of the sentence should be the focus of teachers, rather than *local* errors or

errors which affect simple elements in a sentence. Krashen (1982) asserted that correction should attend to simple errors. Also, CF should be directed at “marked grammatical features or features that learners have shown they have problems with” (Ellis, 2009b, p.6). The following are the errors that L2 writers may struggle with as pinpointed by Ferris & Hedgcock (2013):

- Errors in verb tenses
- Errors in form (correct formation of verbs)
- Passive constructions
- Modal constructions
- Subject/verb agreement
- Confusing between subclasses of nouns (countable/non-countable, abstract, collective, to name but a few).
- Nouns’ implications for plural or possessive endings.
- Use of articles and other determiners.

2.1.9.3. Causes of errors

Making errors in the process of learning English is inevitable. A distinction is, however, needed between an error and a mistake (Brown, 2000). A mistake refers to a performance error randomly or as a slip. They can be made by NS and NNS alike as they are not the result of deficiency in competence but the result of inattention and fatigue. An error, on the other hand, is systematic and is “a noticeable deviation from the adult grammar of a NS. It reflects the competence of the learner (p.173). Although it is not always clear to distinguish the two (Brown, 2000), but the self-correction nature of mistakes and the frequency of the deviant form are important clues.

Pondering on the reasons of errors is pivotal in error analysis to help students conquer their writing difficulties (Brown, 2000). Brown then grouped sources of errors under interlingual and intralingual transfer. To start with, interlingual transfer, which takes place across two or more languages, is also known as mother tongue interference. It is manifested more particularly in beginning stages of learning an L2 or FL (Brown, 2000) due to the unfamiliarity of the FL linguistic system to FLLs whose only linguistic resort is their mother tongue, and on which they rely to learn a new language. Moreover, intralingual transfer, which is also known as overgeneralization, occurs within one language, and is manifested when students begin to learn new parts of the TL system. In so doing, students start overgeneralizations within the TL itself as they progress in learning. As a good case in point, students use past tense form of a verb following do or be.

2.1.9.4. Teacher's role when responding to students' errors

In responding to students' errors, the teacher's role was viewed by Kroll (1990) as 'schizophrenic', splitting into three distinct 'personas': teacher as reader, teacher as coach, teacher as evaluator. As the teacher's role is double-folded in view of process-oriented approach, it is not sufficient that teachers respond as neutral readers, but should meet their students' expectations and be evaluators, by providing corrective feedback (Kroll, 1990). According to Chandler (2003) students may also be engaged in the error correction besides receiving it from the teacher because if feedback is integrated in their revisions, students will pay attention to form without ignoring the content. All in all, teachers provide feedback because they want their students to write well (Kroll, 1990).

2.1.9.5. The significance of error correction

It was debatable whether or not errors should be corrected, what, why, when, how, and who should correct errors (Bitchner & Ferris, 2012). For example, Krashen (1985)

disregarded error correction, attributing errors no role in facilitating language acquisition or learning. Nonetheless, with the shift in focus on the learner, researchers from the cognitive and sociocultural paradigms of learning developed interest in determining the role of CF in the language acquisition process (Ellis, 1994). In second language acquisition (SLA), the term ‘interlanguage’ was developed by Selinker as early as 1927, entailing that the “learner language” is still in a developing process; therefore, it is normal to contain errors which are considered a natural part of the process (Harmer, 2007). Similarly, Hyland & Hyland (2006) argued that research on CF should take into consideration that language acquisition occurs gradually over time, accepting that “mistakes are an important part of the highly complex developmental process of acquiring the target language” (p.85). They further argued that ESL teachers and practitioners should not expect target-like forms to be acquired immediately after being highlighted through CF, even if the CF is explicit.

The role of explicit instruction and CF in language acquisition and learning was fostered by the cognitivists (McLaughlin, 1987, 1990) and Anderson (1983, 1985). Likewise, interactionists (Long, 1996; Schmidt, 1990, 1994; Long & Robinson, 1998) stress the provision of negative evidence and CF owing to its importance in language acquisition and learning. Schmidt (1994) asserted that both language forms and structure should be considered if acquisition and learning are to occur. It was assumed by the sociocultural theorists that language development takes place as a result of social interactions between individuals, particularly with native speakers of the TL (Lantolf & Thorne, 2006). Native speakers are considered more knowledgeable and can thus scaffold learners (Lantolf & Thorne, 2007). Put differently, if assistance is provided by the teacher or more advanced learners, the second or foreign language is learnt more autonomously, especially when this assistance happens in the learner’s Zone of Proximal Development

(ZPD) (Bitchner & Ferri, 2012). At this particular point CF can be utilized as a strategy (Lantolf & Thorne, 2007).

2.1.10. Feedback in Writing

Feedback is a crucial feature of teaching and learning processes and one element in a repertoire of connected strategies to support learning (Askew, 2004) It is one strategy teachers can utilize to enhance students' learning in general and writing in particular. With that said, feedback is "information provided by an agent (teacher, peer, boss, parent, self, experience) regarding aspects of one's performance or understanding" (Hattie & Timperley, 2007, p.81). In writing, feedback can be spoken or written where it does not necessarily take place after writing is finished. If feedback is done earlier and given at the different stages of the writing process it can be useful and stimulating. In this vein, Hattie (1992) gave some characteristics to feedback to be effective which include that feedback should be corrective in nature, timely and immediate, and specific to a criterion.

2.1.10.1. Types of feedback in writing

Responding to students' written work is essential to the development of their writing skills (Hyland, 2003). Responding to students' writing can be done through teacher written feedback, teacher-student conferencing, or peer feedback. As the two last are not the concern of the present study, only teacher written feedback will be discussed.

2.1.10.1.1. Teacher written feedback

A capital role is played by teacher written feedback in ESL/EFL writing classes (Hyland, 2003). Teachers feel satisfied about using written feedback and tend to even equate written feedback with writing. Mutually, students are satisfied when teacher written feedback is provided as the teacher is regarded the most reliable source of feedback in L2

writing classroom (Lee, 2004). Despite this credit, however, research has put teacher written feedback in question (Lee, 2004; Connors & Lunsford, 1993; Zamel, 1985). This controversy about teacher written feedback is caused by the claim that teachers' comments tend to focus on language form and less on content, organization, and style fearing that if language errors are not corrected, bad grammar will fossilize (Lee, 2017). In other words, teachers play the role of language and grammar rather than writing teachers. Against this background, teacher written feedback need to address issues related to content and organization. As an illustration, Ferris (1997) found that 15% of teacher written feedback focused on grammar and mechanics and 85% focused on content and rhetorical development. Teacher written feedback should be balanced between the two tenets of writing (Ferris, 2004; 2014; Hyland & Hyland, 2006a; Zamel, 1985). The teacher written feedback should be distributed at the different stages of the writing process to allow students for multiple drafting (Ferris, 1997, 2014). According to Hyland (2003), teacher written corrective feedback can take the form of commentary, cover sheets (or rubrics), minimal working, and electronic feedback. The teacher can select what he/she deems to be most appropriate in the development of students' writing skill.

2.1.10.1.2. Electronic feedback

Electronic feedback can be elusive and difficult to define depending on the approach of the teaching of writing (Ware & Warschauer, 2006). On the one hand, electronic feedback may refer to *automated* feedback provided by the computer, when teaching writing is viewed as a compilation of sub-skills. On the other hand, electronic feedback may refer to the tool by which human beings provide feedback, in which case writing is deemed to be a social practice. This study, it is worthy to mention, falls within the framework of the second annotation. Also, the terms electronic feedback and online feedback are used

interchangeably all along the thesis. Schwartz and White (2000) have identified six features of electronic feedback:

- it is multidimensional, in that it covers aspects of writing ranging from content, presentation skills, grammar, to communication techniques,
- it is non-evaluative, which means offering objective information about the students' work, allowing them to identify strengths and weaknesses,
- it is supportive by offering information in a way that allows student to improve their work,
- it is student controlled, in that it offers choices about how students can respond to the information,
- it is timely, where feedback is provided as soon as possible,
- it is specific, in which it describes specific observations and making recommendations.

The overlap between technology and second language writing gave birth to electronic feedback (Ware & Warschauer, 2006) which is the novel form of feedback. Although conventional CF has been used for a long time in traditional classrooms, electronic or CF has been introduced recently. Because ESL/ EFL teachers may encounter difficulties providing CF to all learners in a single session (Cho & Cho, 2007) electronic CF can be a panacea to this issue. Electronic CF can play an important role in developing learners' metacognitive awareness in that learners' attention is focused on limited information when texts are marked up with coloured annotations (Yeha & Lob, 2009). This draws learners' attention to the error being made as well as the feedback about it. Furthermore, the feedback offered online takes two forms; either through synchronous writing where students communicate with each other via a discussion software and internet chat sites, or through asynchronous writing, where communicate in a delayed time via email, weblogs, wikis, among others (Hyland & Hyland, 2006a).

Because of the teacher's workload, feedback provision should be much minimized in case of feedback delay (Jones, 2008). Unlike conventional classroom feedback, teachers are in better control of peer feedback online (DiGiovanni & Nagaswami, 2001). Shultz (2000) compared the face-to-face with computer-mediated peer feedback by examining the revisions students made in their writing, following the process approach. She found that her students revised more online than face-to-face as they have their comments and suggestions saved automatically. Also, she argued that students with whom the blended mode was used, that is receiving online and face-to-face feedback benefited the most from feedback. Similarly, Tuzi (2004) reported that students made more frequent changes when receiving online feedback than to oral classroom feedback.

2.1.10.2. Written corrective feedback strategies

2.1.10.20.1. Direct and indirect feedback

Not only should EFL/ ESL teachers consider which errors to focus on, but also what type of feedback to provide for the different types of errors committed by learners (Ferris, 2004). That is, teachers may decide whether to provide direct or indirect feedback. Ferris (2006) defined direct feedback as “the provision of correct linguistic form by the teacher to the students. It may take various forms, including crossing out an unnecessary word, phrase, or morpheme; inserting a missing word or morpheme; or writing the correct word or form near the erroneous form” (p.83). Indirect feedback—also referred to as coded feedback—, on the other hand, was viewed to “occur when the teacher indicates in some way that an error has been made— by means of an underline, circle, code, or other mark— but does not provide the correct form, leaving the students to solve the problem that has been called to his or her attention” (p.83). Another sub division of direct feedback may take the form of written meta-linguistic explanations in the form of a grammar rule, for example.

Metalinguistic correction can be effective in developing accuracy while viewed even more effective in the long term (Sheen, 2007).

Researchers (Lalande, 1982; Ferris & Hedghock, 1998, 2004)) argued in favour of indirect feedback asserting its ability of engaging students in problem solving and helping them to be self-editors of their own writing; yet, indirect feedback is less helpful to lower level students, who are incapable of correcting the error even after explicit indication of the error. In her study, Ferris (2006) witnessed progress in students' writings after receiving indirect feedback. Also, Ellis (1994) claimed it is necessary a distinction be made between two facets of acquisition: acquisition of a new linguistic form and the reinforcement of an already been internalized linguistic form. Given this distinction, Ellis (2008) noted that indirect feedback can be most helpful in the first type of acquisition as the form is already known whereas direct feedback can be beneficial in the second type of acquisition because it provides learners with the correct form of the target language. Hedge (2000) argued against direct CF claiming it will make students dependent on their teachers to correct their errors while still be passive learners who neglect their role in the correction process. In the same line, Harmer (2001) confirmed that coded feedback is effective if the codes used by the teacher are simple and systematic. Similarly, Ferris (2002) states that indirect CF triggers the learner's responsibility in the correction process and help them become more accurate writers in the long run, and gives them opportunities to reflect about linguistic forms (Ellis, 2009).

Accordingly, the degree of effectiveness of either forms of feedback depends all on learner's current state of grammatical knowledge (Ellis, 2008). Ellis (2009) asserted that while direct CF is more advantageous than indirect CF in that it provides learners who are capable of self-correction with explicit assistance about how to correct errors, it can still be disadvantageous as no effort is required from students to correct their errors.

Consequently, it will not foster long-term learning; therefore, indirect feedback is chosen over direct feedback. In the same line of thoughts, Ferris & Roberts (2001) argued that direct CF is likely to help low-proficiency writers.

Teachers may respond to students' writings by providing direct feedback which is "the provision of the correct linguistic form by the teacher to the student" (Hyland & Hyland, 2006, p. 83). Taking different forms, direct feedback may constitute of crossing out an unnecessary word, phrase, or morpheme, inserting a missing word, or writing the correct form next to the erroneous one (Hyland & Hyland, 2006, p.83). Chandler (2003) found that direct corrective feedback resulted in the most possible accuracy gains, both in revisions and in subsequent writing. Ferris and Roberts (2001) suggest that direct feedback is more helpful to writers for many reasons. To start with, it reduces the type of confusion that they may experience if they fail to understand or remember the feedback they have been given; say, for instance, the meaning of error codes given by teachers. Secondly, it provides student writers with information to help them resolve more complex errors; say, for example, syntactic structure). Thirdly, it offers more explicit feedback on hypotheses that may have been made about language. Finally, direct feedback is more immediate than indirect feedback. In a series of studies conducted by Bitchener, Young, & Cameron (2005), Bitchener (2008), Bitchener and Knoch (2008a, 2009, 2010a), comparing the effectiveness of the different types of direct feedback, the feedback provided by the teacher, be it direct or indirect (underline), did result in significant improvements in both accuracy and fluency in subsequent writing of the same type. It is noteworthy that students may improve when provided both types of feedback, direct and indirect, which was the case of Al-Husseini's study (2014).

To sum up, although both forms of CF, be it direct and indirect, can result in improved accuracy compared to self-correction, "direct correction is better suited for grammatical

errors and indirect correction is better suited for non-grammatical errors” (Van Beuningen, Long, & Kuiken, 2012, p.33).

2.1.10.2.2. Selective and comprehensive feedback

This dichotomy applies to both types of feedback, namely direct and indirect (Ellis, 2009). It is the question of whether all errors or only some should be corrected when providing feedback to L2 student writers (Ferris & Hedgcock, 2013). While selective feedback, also referred to as focused feedback, is about correcting some errors, comprehensive correction, also referred to as unfocused feedback, and is about correcting all errors (Ferris & Hedgcock, 2013). Ellis, Sheen, Murakami, & Takashima (2008) refers to unfocused CF as when “teachers correct all (or at least a range of) the errors in learners’ written work” (p.356). In contrast, focused corrective feedback “selects specific errors to be corrected, and ignores other errors” (p.356). These may include errors in the simple past use, for instance.

According to Ellis et al., (2008) focused CF is more effective than unfocused CF on the following grounds. To start with, learners can handle corrections focusing on a single error type. Second, students can better understand the nature and type of the error and the expected correction of that error. By the same token, focused CF was found to be efficient when the corrections were solely directed at the students’ use of definite and indefinite articles (Sheen, 2007). Teachers may prioritize some errors over others to be corrected, but students’ expectations are that all errors should be marked and corrected (Ferris & Hedgcock, 2013) so that students may edit their texts comprehensively (Hartshorn et al., 2010). Moreover, SLA research concludes that fossilisation may arise if errors are left uncorrected (Scarcella, 1996). It would be the teacher’s concern to decide which errors should be corrected if s/he chooses selective correction. Ferris & Hedgcock, (2013) argued that *global* and *serious* errors are worth correcting as they may interfere with the

comprehensibility of the text along with *frequent* errors compared to other error types. Also, *stigmatizing* errors should be corrected, that is, errors which are more typical of foreign language or L2 learners than other students, and more confusing to academic and professional audiences.

Unlike other studies, it was discovered in Ruegg's (2010) that unfocused feedback to students' writing had a positive effect, in that the treatment group showed less repetition of errors in subsequent journal entries compared to the control group. She pinpoints five ways of providing indirect feedback: (p. 248):

- Indicating both the location and type of the error but leaving the student to decide how to correct it.
- Indicating the type of error but not the location and leaving the student to decide how to correct it.
- Indicating the location of the error but not the type and leaving the student to establish what the error is.
- Indicating which line the error occurs in but not the type or exact location and leaving the student to locate where exactly on the line the error is and what it is.
- Indicating which line the error occurs on and the type of error and leaving the student to infer where exactly on the line the error is and how to correct it, as well as many other variations.

It is noteworthy that feedback can be non-corrective as well, in which neither direct nor indirect correction is provided (Zheng, Laurence, Warschauer, & Lin, 2015). Put otherwise, correctors provide feelings, evaluations, and encouragements through using emotional responses (Zheng et al, 2014, Hyland, 2003; Ellis, 2009).

In this study, errors and mistakes are not used interchangeably; the word ‘error’ is used. By the same token, error correction and corrective feedback are also used interchangeably because feedback is broader than error correction in that error correction is embedded in feedback (Pawlack (2013).

2.1.10.3. The effectiveness of corrective feedback: Pros and cons

In arguing against the effectiveness of corrective feedback, Truscott (1996, 2007) based his stance on some arguments. He doubts the teacher’s capacity to provide adequate and consistent feedback as much a doubting the learners’ ability and willingness to use that feedback effectively as it might boomerang, preventing students from using complex sentences if the error is emphasized as well as hampering fluency which was referred to by Wolfe-Quitero, Inagoki, and Kin (1998) as “rapid production of language” (p.117). ESL/EFL students and teachers may better invest the time spent on corrections on more writing practice. Methodologically, Truscott (1996, 2007) asserted that studies on CF such as Chandler, 2000; Ferris, 1995, 1997, 2006) are not reliable to claim the effectiveness of CF as they were not based on a control group to compare results to. Finally, he criticized CF researchers as referring to different errors in different studies as “grammatical errors”. In the same line, Gunnette (2007) noticed that CF studies find positive effects in the short run rather than the long run, which would be more conclusive. Even though Ruegg’s study (2010) resulted in increased accuracy improvements, this was at the expense of writing complexity.

By contrast, opponents to Truscott’s claims proved empirically the effectiveness of corrective feedback (Knoblauch & Brannon, 1981; Sommers, 1980; Ferris, 1997; Ferris & Roberts, 2001; Chandler, 2003; Bitchner et al., 2005; Ellis et al, 2008; Ruegg, 2010). These studies, among others, investigated the effectiveness of feedback in the editing stage of the writing process, and proved that corrective feedback is a useful editing tool by which

students did improve their writing accuracy. As a good case in point, Chandler (2003) investigated the effects of CF on new pieces of writing, concluding that CF on students' grammatical and lexical errors results in error reduction; hence, it is effective in enhancing students' writing accuracy. Other studies (Bitchner, 2008; Ellis et al, 2008; Bitchner & Knoch, 2008) examined the long-term effects of CF on students' writing. Opting for focused correction, whereby CF targets one error at a time, these researchers asserted its ease to be noticed and understood by learners (Ellis et al, 2008). In an experimental study conducted by Bitchner (2008), the experimental group's accuracy improved compared to the control group after receiving focused correction on referential indefinite article 'a' and referential definite article 'the'. In a similar study, Ellis et al (2008) compared the effects of focused and unfocused written CF on the accuracy of Japanese students who used the definite and the indefinite articles, in which both forms of CF were found effective.

While error correction was vigorously questioned in terms of its efficacy in improving students' writing, and described as "useless" and "harmful" (Trascott, 1996), it proved helpful to students in the editing and revision phases of writing, and leads to accuracy gains over time (Ferris, 2011). More importantly, teachers' feedback is appreciated by students, assuming that it is helpful to ameliorate their writing, requesting all errors to be marked and corrected rather than selecting some errors (Ferris & Hedgcock, 2013). On the other hand, neglecting students' errors may lead to a disappointment and fracture between teachers and students (Ferris, 2011). Also, student writers write to receive and benefit from feedback on both form and content (Ferris, 2002).

2.1.10.4. The role of feedback in writing

Feedback is an essential part of the learning process (Allan, 2007; Ellis, 2009a). Providing students with high-quality feedback is capable of enhancing learning as well as

boosting their motivation. Allan, (2007) argues that it is fundamental to provide regular feedback to students so that they can constantly measure their progress.

According to MacDonald (2011), students' fluency in writing develops with practice and feedback. Encouraging students to both give and receive feedback fosters learner independence (Bensen & Brack 2010). They argue that feedback that is provided in a formal assessment setting like the classroom should be timely, informative, and supportive.

Supportive feedback is another key role of feedback which has also been indicated by Nicol & Macfarlane-dick (2006) in their principles. They further argue that feedback be supportive especially as there is a physical separation between the teacher and the learners in the online environment. Consequently, students would need more support and assurance during their learning. Benen and Brack (2010) insist that feedback is most effective when both encouragement and explanation are linked.

Thorne and Page (2003), argue that notwithstanding students learn in many different ways, but they all need feedback. For Stephenson (2001), providing students frequently with feedback helps students abolish feelings of isolation and reinforces their relationship with teachers. Nicol and Macfarlane-dick (2006) have set seven principles of good feedback practice; one of which is that it should convey specific information whose prime objective is directed towards improvement of learning, which is referred to as informative feedback.

2.2. Web 2.0 Technologies Integration and Writing

2.2.1. Theoretical Foundations of Learning

According to Harasim (2012), a theory is “an explanation why something occurs and how it occurs” (p.4). The interests in learning have been around throughout history

(Dumont, Istance, & Binavides, 2010) and learning in most learning theories is defined as “a persisting change in human performance or performance potential” (Driscoll, 2005, p. 9). A theory of learning helps us understand how people learn. To answer this question, many theories were generated in the 20th century. Therefore, it is crucial for educators to understand learning theories so that they can reflect on their practice, reshape and refine their work, and contribute to ameliorate the discipline. When it comes to learning and instructional design, three major theories namely: behaviourism, cognitivism, and constructivism are referred to.

Behaviourism provides a theory of learning that is measurable and observable. Its basic idea is that eliciting a change in overt behaviours means that learning took place, by associating learning with stimulus and response (Lefrancois, 2000). As far as instructional design is concerned, instructors shape learners behaviours by repetition and reinforcement (Davidson-Shivers & Karen, 2006). However, focusing on the observable side, behaviourists completely neglected the mind and considered it a “black box” (Harasim, 2012).

Behaviourism was unable to explain most social behaviours and complex mental phenomena which created a growing dissatisfaction among researchers, and led to the emergence of cognitivism. The latter, and unlike behaviourism, not only did it recognize the existence of the mind, but also considered it the power behind learning. Thus, learning was viewed as a change in the learner’s internal knowledge structure through information processing activities within the learner’s mind (Ormond, 2006). In the same vein, the learner is an information processor who is capable of absorbing information, performing cognitive operations on it, and storing it in memory.

Constructivism emerged in reaction to both behaviourism and cognitivism. It adopted the idea that learners are not passive recipients of information; rather, they actively construct their own knowledge through the interaction with environment (Dumont et al.,

2010). More importantly, they can jointly construct meaning with teacher and peers. While this study aims at investigating how the writing skill of learners, can be developed through the integration of web 2.0 technologies into the writing classroom, the underpinning instructional theory that supports the study and the technology integration is constructivism.

2.2.1.1. Socio-constructivism and cognitive constructivism

Constructivism started in psychology in the beginnings of the 20th century with the pioneering works of Piaget, Bruner, and Vygotsky (Jolliffe, Ritter, & Stevens, 2001). For constructivists, learning does not take place passively but actively through the active participation of the learners seeking to make sense of the world through their own experience (Alexander, 1999). With that said, emphasis needs to be put on aspects of learning, problem-based, project-based, and team –based learning. According to Lehtinen, (as cited in Stephenson, 2001), learning is constructive in the sense that learners process new information and form new meanings. Moreover, he claims that learning is self-directed, meaning that learners take greater responsibility for their learning by taking an active role in the learning situation; it is also cooperative, meaning that students learn in a group. This means that the construction of knowledge is based on collaboration and social negotiation of meaning in which learners develop common understanding and shared meaning through peer and tutor discussions and negotiation (Allan, 2007).

There are different versions of constructivism (Phillips 1995; Steffe & Gale, 1995). One of the distinctions is between cognitive constructivism and social constructivism. A distinction can be made between cognitive constructivism, also referred to as individual constructivism, in which students construct meaning individually, and social constructivism, which refers to the construction of meaning by group through interactions (Benson & Black, 2010). While some researchers (Cobb, 1994a; Cobb & Yackel, 1996a)

are advocates of the viewpoint that cognitive constructivism and social constructivism are inseparable, and argued that individual cognitive processes and sociocultural ones cannot be studied in isolation, others are staunch proponents of the reverse. In this respect and after a 1992 conference on alternative constructivist epistemologies, Steffe (1995) stated:

My intention is to establish possible relationships among the alternative constructivist epistemologies that might not have been considered at the conference and, thereby, to open paths for communication. This amounts to much more than an academic exercise because there is a lot at stake here for the education of children and young adults, and for the role of constructivism in that education” (p. 489).

Cognitive constructivism is based on Piaget’s work and research on cognitive developmental psychology. His main focus is on the individual, and how he constructs knowledge. Piaget claims that information cannot be given, but rather individuals must construct their own knowledge (Piaget, 1953). Constructivism is mostly concerned with understanding the individual learner and the development of individual understandings (Derry, 1996), based on the individual interpretations of experiences, and making sense of the outside world through one’s individual representations (Duffy & Jonassen, 1991; Jonassen et al., 1996; Jones & Brader-Araje, 2002; Murphy, 2002). In other words, the learner builds up his or her knowledge system through stages of mental development (Wadsworth, 1996). That is to say, knowledge is constructed or rather structured by the knower’s mental processes; it is a thing made by the mind rather received from a source (Hruby & Roegiers, 2012). In terms of learning, information is not transmitted to the learner with meaning intact and contained, but rather the learner implies meaning to the information.

Social constructivism is strongly influenced by the landmark work of the Russian psychologist lev Vygotsky (1978), who is considered the founding father of this theory.

He strongly emphasizes the role of social interaction, and considers it an integral part of learning. The theory suggests that learning is not a process taking place encapsulated within the mind, nor is knowledge something self-sufficient and independent of the situations in which it unfolds. Nevertheless, Vygotsky's stance is that learning is an interactive activity between the individual and the situation (Dumont et al., 2010). Like Brown, Collins, & Duguid (1989) put it, knowledge is "a product of the activity, context, and culture in which it is developed and used". (p. 32). Learning is constructed through interactions with others, which take place within a specific sociocultural context (Oldfather et al., 1999). For social constructivists, knowledge is also a human product, and is socially and culturally constructed (Ernest, 1999; Gredler, 1997; Prat & Floden, 1994). Individuals create meaning through their interactions with each other and with the environment they live in. More importantly, Social constructivists view learning as a social process. It does not take place only within an individual, nor is it a passive development of behaviors that are shaped by external forces (McMahon, 1997). Meaningful learning occurs when individuals are engaged in social activities.

According to cognitive constructivism, also referred to as piagetian constructivism, "individuals create sophisticated mental representations and problem-solving abilities by using tools, information resources, and input from other individuals", (Felix, 2005, p. 92). The pedagogies of constructivism are constructed around the idea that learners consciously construct their learning individually, assisted by the affordances of the computer.

As for the sociocultural approach, influenced by Vygotsky's social constructivist theory of learning, there is a huge emphasis on the role of mediation during social interaction while individuals co-construct knowledge.

On the whole, while cognitive and social *constructivisms* are fundamentally different, both types ultimately form overall constructivism. The core concept is that ideas are

constructed from experience, whether individually or socially, to have a personal meaning for the learner. It builds on the assumption that learners construct meaning either based on their personal individual experiences and interpretations of the environment, or through the social negotiation of meaning while interacting with others.

It is worthy to mention that constructivism became very influential in the American educational technology in the 1990s, rebelling against the known positivist or objectivist conceptions of learning associated with behaviourism. While behaviourism denies the role of the learner to take part in the learning process, constructivism rather acknowledges and focuses on the engagement of the learner in the learning experience (Benson & Brack, 2010).

In this context, recent developments in online learning have resulted in adoption of social constructivist ideas to explain how students learn as they engage with each other. This particular concept is inspired from vygotsky's sociocultural theory which implies that learners learn best when they socially interact with each other. He identifies the ZPD which is the distance between the learners's current level of development and the level of potential development accomplished through the guidance of a more knowledgeable person who is the teacher or collaboration with peers. In the online learning environment, the teacher would provide the learner with support, identified in Vygotsky's theory as scaffolding until he/she becomes independent (Benson & Brack, 2010).

2.2.2. Constructivism and Language Learning

That learning is constructive has become common ground in educational psychology. From a constructivist point of view, learners are engaged in the processes of knowledge and skills acquisition in interaction with the environment (Dumont et al., 2010). Furthermore, there is a shift from teachers to students, as teachers work solely as

facilitators and moderators (McDonald, 2008) preparing activities and providing encouragement and guidance when needed (Cooper, 2007). “Both Piaget and Vygotsky agreed that the teacher’s role was that of a facilitator and guide, and not director or dictator. Piaget saw children gaining knowledge from organizing and reorganizing data as they receive information. Vygotsky saw social interaction or collaboration as the chief method for learning, and he placed more emphasis on language development” (Powell & Kalina, 2006, p. 54).

Thus, teachers are requested to allow students to discover knowledge individually, such as including question and answer periods after every significant topic. Following this, teachers can assess students through testing or through discussion and dialogue, and also encourage them to ask questions to one another (Brooks & Brooks, 1999; Powell, & Kalina, 2009). One component of a constructivist environment includes providing means for students to experience real world or meaningful practices. Students learn through examples they can relate to on an emotional or cognitive basis. They can experience their world using meaningful practices (Powell & Kalina, 2009). As a good case in point, in an EFL writing class (Written expression course), students can select their own topics when they are asked to write paragraphs or essays.

In constructivism, language learning is 1) a process of interaction between what is known and what is to be learned; 2) a social process; 3) a situated process; and 4) a meta-cognitive process (Pritchard, 2007). A constructivist learning environment (CLE) is characterized by engaging learners in active, manipulative, constructive, intentional, complex, authentic, cooperative (both collaborative and conversational), and reflective learning activities. Furthermore, instructional support in constructivism include modeling, coaching, and scaffolding when learning an L2 (Jonassen, 1999). Following a constructivist approach, learners are able to develop language skills in a social context

where they make use of some technologies to scaffold each other in grasping new information (Cummins, Brown, & Sayers, 2006).

2.2.3. Constructivism and Technology

Recently, developments in the field of computer science and web technologies have completely altered the way teachers teach and the way learners learn. In this respect, there is a close relationship between constructivism and technology on the grounds that constructivism stated that learning in general and language learning in particular takes place in contexts while technology refers to the designs and environments that engage learners (Gilakjani, Lai-Mei, & Ismail, 2013). The notion of constructivist learning has been combined with the utilization of diverse web technological tools. The incorporation of technology, thus, goes hand in hand with fostering learner autonomy and learner centeredness, in an L2 context, where learners are in control of and responsible for their own learning; and diminishes the teacher centeredness where the teacher dominates all. Furthermore, students are engaged in meaningful activities like problem-solving learning projects, surfing the internet for information on a given report or assignment. Accordingly, the interconnection and relation between constructivism and technology is clearly displayed by integrating technology into the classroom.

The basic concept of constructivism is to offer student-centered learning with an emphasis on experiences, knowledge construction and learning process (Ali, 2004) in which learning with technology is no exception. As such, in the area of foreign language and L2 education, constructivism is often associated with the use of technology in the classroom (e.g., Chuang, & Rosenbusch, 2005; McDonough, 2001; Ruschoff, & Ritter, 2001).

Web-based instruction provides learners with opportunities to discover and learn according to their individual needs, create their individualized learning paths, and move at their own speed to retrieve information. This is in line with the constructivist philosophy of learning which fosters learner interaction with the environment to construct individual knowledge structure (MacDonald, Stodel, Farres, Breithaupt, & Gabriel, 2001). Thus, technology can be used to help implement a student-centered, constructivist and progressive approach (Adeoye, 2015). According to McLoughlin and Lee (2007) “with respect to ICT, we are witnessing the rapid expansion and proliferation of technologies that are less about “narrowcasting”, and more focused on creating communities in which people come together to collaborate, learn, and build knowledge” (p. 664).

2.2.4. Technology Integration into Instruction

To integrate means to combine two or more things to make a whole, (Cennamo, Ross, & Ertmer, 2013). When we integrate technologies into instruction, we make them an integral part of the teaching and learning process. Technology integration is the incorporation of technology resources and technology-based practices into the daily routines, work and management of schools (Dockstader, 2008). It requires using computers routines, work, and management of schools and universities (Dockstader, 2008). It requires using computers effectively and efficiently in the general content areas such as mathematics, science, reading and social studies to allow students to learn how to apply computer skills and technology in meaningful ways. Accordingly, it is the curriculum which drives the use of technology, and not technology which drives the curriculum. Integrating technology exceeds the mere fact of using computers to supplement a lesson in the form of presentation or word processing software (Dockstader, 2008).

It is important to understand that technology is a tool for teaching and learning, and not a strategy (Adeoye, 2015). In other words, proficiency in the use of the tool alone is no guarantee to the success of the instruction.

Teachers are responsible for creating and implementing new and different ways to make learning more enjoyable and effective (Cennamo et al., 2013). The tools teachers are required to implement and integrate have to cope with the demands of the 21st century. Technology utilization should meet the changing learning goals and needs of learners who are considered ‘digital natives’, compared to teachers who are considered ‘digital immigrants’ (Cennamo et al., 2008).

Technology integration requires changes to many instructional components (Dwyer, Ringstaff, & Sandholz, 1991) including what resources are used, what roles the teachers perform, what roles the students perform; as well as, and the nature of the instructional activities

Technology helps change teacher-student relationships, encourages project-based learning styles, and supports the acquisition of skills such as ‘higher order thinking’, analysis and problem solving (Dockstader, 2008). It is important to recognize that pedagogical integration of technology is to better understand how the use of technology can improve the quality of teaching and learning. The teacher of the 21st century need not be competent only in the subject matter or accomplished in instructional techniques, but also in the integration of technology in the curriculum. When teachers effectively integrate technology into their classroom practice, learners are empowered to be actively engaged in their learning. According to Dockstader (2008), students who are instructed with technology are more likely to retain information and develop a deeper understanding of concepts.

Sheingold (1990) asserted that integrating technology in the classroom is not about teaching students to operate computers, but integrating technology is about helping teachers to use technology as a tool for teaching. Accordingly, technology incorporation can be a difficult process if teachers are not familiar with technology or are technology immigrants. However, instructors need to get trained on how to use and incorporate technology.

Technology integration in instruction results in a positive effect on student achievement and performance (Etim, 2005, p. 61). Gahala (2001) points out that the use of technology does promote engaged learning. According to Etim (2005), “the use of computer technology and internet tools will continue to impact learning in positive ways and help to make learning more engaging”. (p. 36). Furthermore, outlined four pedagogical principles practiced in the classroom where technology is integrated: *active learning, mediation, collaboration, and interactivity*. Active learning, using technology, is all about students interacting with the content to build and construct knowledge. Mediation refers to the interaction between the teachers and students to solve learning problems, answer questions, and discuss topics related to the course. Collaboration, on the other hand, refers to the interaction among students through questions and information sharing. Most important than all four principles is interactivity as it has the greatest pedagogical potential for learning using technology; it is where active participation via the interaction with teachers, students, resources using technology builds knowledge and understanding (Jaffee, 1997).

Pantasiz (2002) indicated that technology-enabled learning is becoming an integral part of the learning process because the power of technology leverages information to eliminate the one-size-fits-all approach and customizes content to meet individual needs

and learning styles. The integration of technology into the course design and assignments is the critical point for using technology to improve learning (Sherer & Shea, 2002).

2.2.5. Technology Integration as Blended Learning

The term blended learning, which appeared first in the business world, simply refers to the situation where an employee is simultaneously working and taking a training course (Sharma & Barret, 2007) where it can take the form of a web-based platform. However, the term blended learning can equally be used in teaching-learning in multiple situations.

Blended learning is one of the most significant developments of the 21st century, and its importance lies in its potential (Thorne, 2003). They further argue that blended learning can provide authentic opportunities for learners to learn at any time and in any place crossing time and place boundaries.

Sharma & Barrett (2007) defined blended learning as “a language course which combines a face-to-face (F2F) classroom component with an appropriate use of technology”p.7. They argued that the term technology covers a myriad of recent tools including the use of computers as a means of communication such as: email, chat, Virtual Learning Environments, (VLEs), blogs, and wikis. They further claim that the positive outcomes of blended learning are very apparent. Allan (2007) referred to blended learning as “a mixture of face-to-face and e-learning” (p.4) and also defined as “ the use of different internet-based tools including chat rooms, discussion groups, podcasts and self-assessment tools to support a traditional course” (p.4).

Sharpe, Benfield, Roberts, & Francis (2006) attribute the following characteristics to blended learning:

- Time; synchronous or asynchronous activities and communications

- Place where learning takes place; on campus, a workplace, or at home
- Different ICTs; like first-generation internet technologies e-lists or discussion lists, bulletin boards, online chat and conferencing, and videoconferencing like emails, social-networking software, or web 2.0 such as weblogs and wikis
- Context of learning; academic or workplace

Allan (2007) asserted that, in recent years, the interest has even shifted from e-learning to blended learning owing to the following reasons:

- Making learning more accessible, engaging, and relevant;
- Providing more flexible learning opportunities;
- Reducing the amount of time spent on face-to-face learning activities by shifting to the balance to more blended learning activities;
- Integrating practitioner-based experiences with classroom-based learning;
- Developing programs that are relatively cheap to repeat or use with large groups of learners;
- Exploiting ICT and training facilities;
- To explore new approaches to learning and teaching;
- To keep up with other ILS.

Allan, 2007, p.2

Allan (2007) pinpoints that blended learning offers some advantages to students and teachers alike in that it combines between the best of two worlds (in class and online). This is done in a way that fits the particular needs of students in terms of time, space, and technologies. Moreover, it offers flexibility in terms of program delivery, teaching and learning methods, and time and space of both learner and tutors. Hence, the time taken to physically attending a course may be reduced via the integration of online activities.

Another advantage of blended learning is that it provides a mixture of learning opportunities.

2.2.6. Computer Mediated Communication (CMC) in Education

Computer mediated communication (CMC) refers to “the use of networks of computers to facilitate interaction between spatially separated learners; these technologies include electronic mail, computer conferencing, and on-line databases” (Jonassen et al., 1995, p.15). CMC allows for not only communication but also cooperative learning (Jelliffe et al., 2001). Using these tools allows and promotes support between peers. Another key feature in the use of this medium is collaborative work between learners. Also, it was affirmed by Sharma & Barret (2007) that CMC can play a role in structured formal language learning in a number of ways starting from those students taking an entire class online to those taking only a part an online class, which we refer to by “hybrid learning”, or blended learning.

According to Warschaumer (1997), learning through CMC promotes collaborative learning. This is related to the social constructivist approach which was developed by Lev Vygotsky; he claims that the construction of knowledge is socially oriented, and believes that learning occurs through interactions wit and within the environment in which these interactions take place. Vygotsky referred to the ZPD as the distance between the actual development level of a learner and the level of potential development under adult guidance, or in collaboration with more capable peers. In view of this, the application of wikis to enhance students’ writing, following a process writing approach, offers students the opportunity to work develop their writing by learning from their peers and teacher who are deemed more capable.

Ranging from e-mail to more modern tools like blogs and wikis, which have been used in various degrees by teachers with their students, CMC can be classified under two categories in terms of taxonomy. The first is synchronous computer mediated communication (SCMC) which is a real time communication where students communicate at the same time using chat rooms for instance. The second is asynchronous computer mediated communication (ACMC) which is a delay-time communication where students communicate at different times using such tools like weblogs and wikis.

Synchronous tools fall outside the scope of this research which is primarily based on an asynchronous tool, namely the wiki. As for the contribution of asynchronous tools, Macdonald (2011) assumes that it offers a great potential in that it presents opportunities for students to develop independent, self-directed learning, and to be more engaged with a high sense of community. Moreover, she argued that asynchronous online learning fosters reflective learning where students are deemed to be reflective on their learning more than in a face-to-face environment. Meeting these aims is highly achievable; nevertheless, many factors may influence its success in practice. Macdonald (2011) also claims that asynchronous online tools develop independent self-directed learners; it also offers greater scope for reflection with more time to think, compared to face-to-face learning where answers have to be immediate; additionally, it enhances learner engagement; students continue to be together and with the teacher even after the face-to-face learning and daily meetings.

2.2.7. Web Technologies Used in English language teaching (ELT)

According to Evans (2014), media refers to those vehicles or means that convey a pedagogical message. He defines them as “those textual, visual, or aural resources used for the didactic purpose of teaching English as a foreign language” (p. 218). Evans further argued that among the functions or roles of media is that it provides platforms for

communication and collaboration between learners. A distinction is made between two types of CMC technologies which are web 1.0 and web 2.0. The latter, being more developed, are the kernel of this study.

2.2.7.1. Web 1.0 technologies

The web has become the most significant technology of the 21st century. The World Wide Web (WWW) has been in an ongoing change and evolution since its beginnings, and has undoubtedly been the largest information platform worldwide (Murugesan, 2010). The web's evolution actually started with the traditional web or now referred to as web 1.0 which is the first phase of the web, and a read only medium. The latter connects information rather than people, and is a one-way publishing device. In other terms, its primary function is to publish information to be accessed by anyone using the internet (Murugesan, 2007). Subsequently, it gives birth to such protocols as HTTP, HTML, XML, Java, Java Script, Web Browsers, Web sites, among many others. With 1.0 tools, students could find information online and use it to write reports or exposés using the word processor or power point. In addition, they could show their work (only printed) to their teacher and peers in class, and store it in portfolios (Soloman & Schrum, 2007). Jolliffe et al., (2001) referred to the situation where the web and internet technologies can be used and assist learners who are studying at a learning institution, like the university, as web-based learning support. They further explained that web-based learning support is where learning and some activities are taking place traditionally, in a face-to-face environment, but another portion of learning is taking place on the web involving email, chat rooms, discussion forums, and so forth.

2.2.7.2. Web 2.0 technologies

Research continues to focus on how to exploit or harness new technologies with the purpose of enhancing teaching and learning Hogarth (2009). As such, Web 2.0 tools are one of those technologies that can facilitate education. In 2004 Tim O'Reilly coined the term web 2.0. Web 2.0 is also called wisdom Web, people-centric Web, participative Web, and read/write Web (Murugesan, 2007). O'reilly (2005) cites a number of examples of how Web 2.0 can be distinguished from Web 1.0, such as web 1.0 was mainly a platform for information, but Web 2.0 is also a platform for participation. Web 1.0 can be used for the delivery of the course materials and for communication, but web 2.0 can be integrated in an e-learning environment marking a shift from the transfer of knowledge to the construction of knowledge (Virkus, 2008).

For Mc Gee and Begg (2008) “web 2.0 represents a group of Web technologies with a user-centric focus that actively changes and evolves with user participation” (p. 164). The notion of creativity went from linking and clicking to creating and sharing. This implies individuals can not only find and read the information but also create and share their own information (Soloman & Schrum, 2007). Web 2.0 marked a transition from isolation to interconnectedness for end users. These web-based tools encompass blogs, wikis, podcasts, social networking sites, to name but a few (Murugesan, 2010). They allow users to edit, comment, and polish a document collaboratively rather than individually (Soloman & Schrum, 2007). In this context Lin (2007) has pointed out that “Web 2.0 represents a paradigm shift and how people use the Web. While most users were once limited to passively viewing Web sites created by a small number of providers with markup and programming skills, now nearly everyone can actively contribute content online” (p. 101).

Web 2.0, however, defies a widely agreed-upon, concise definition—perhaps because the underlying phenomenon is huge; multiple definitions and interpretations were

attributed to it by different scholars (Alexander, 2006; O'Reilly, 2006; Zimmer, 2008).

O'Reilly (2005), for example, defined the term of Web 2.0 as follows:

Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of the platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences (p.5).

Still, there is a consensus that Web 2.0 refers to the social function of the Web where people are allowed to get involved in sharing information and knowledge, generating content, and collaborating with each other online (Murugesan, 2007). As such, Web 2.0 is defined by McLoughlin & Lee (2007) as "a second generation, or more personalised, communicative form of the World Wide Web that emphasises active participation, connectivity, collaboration and sharing of knowledge and ideas among users" (p. 665).

Web 2.0 harnesses the Web in a more interactive, dynamic, and collaborative manner than its predecessors web 1.0, emphasizing peers' social interaction and collective intelligence, and engaging its users more effectively (Murugesan, 2007). Taking full advantage of the new emerging technological tools of web 2.0 tools like blogs and wikis will certainly create a more dynamic and communicative environment amongst teachers and students in a constructivist environment (Thomas, 2009). Furthermore, Thomas (2009) argues that social constructivism as a pedagogical paradigm for teaching and learning, is facilitated by technology, and particularly web 2.0 technologies. Additionally, using web tools and web 2.0 particularly helps fulfilling a constructivist objective of

engaging students, and allowing them to collaborate and share information, and has a huge potential to improve, and add new collaborative practices to the classroom environment (Solomon & Schrum, 2007).

Anderson (2007) stated the following important concepts behind Web 2.0: (1) it contains individual production and user-generated content that anyone can easily set up and contribute to; (2) it harnesses the power of collective intelligence facilitating groups of people working together on the same project; (3) it involves data on a large scale that keep growing and are used by people every day; (4) it creates a networking effect due to its participatory structure; and, (5) it provides openness with regard to services, applications, and data.

2.2.8. Web 2.0 and English Language Teaching and Learning (ELTL)

Web 2.0 tools are the most modern media currently used in the context of ELT. In terms of transmission of mode of learning in which information is passed from teachers to students, web 2.0 is largely based on a social constructivist framework which is not oriented solely towards examination results and testing. Students are rather engaged in collaborative work that better allows them to express themselves. Put otherwise, autonomous learning which is an enhancement by web 2.0 is facilitated by a social constructivist approach to teaching and learning (Luke et al., 2005). A constructivist approach is about constructing knowledge, not accumulating and memorizing; understanding and applying, not repeating back; and being active, not passive (Marlowe & Page, 2005). That is to say, individuals create meaning through social interaction (kin, 2001) resulting in knowledge being socially constructed. This means that, from a constructivist point of view, web 2.0 allows second language learners (SLLs) and FLLs to become active participants in the learning process. Actually, the use of web 2.0 in education is deemed to be the most appealing (Thomas, 2009). This use was the result of a

shift from viewing the internet as a source of information to viewing it as a “participation technology” via the use of multiple tools as blogs, wikis, forums, to name but a few (Black, 2008). According to Benson and Brack (2010) web 2.0 tools are the most recent developments in the wide world web. Moreover, Solomon & Schrum (2007) argued about this vision saying that:

“The shift to web 2.0 tools can have a profound effect on schools causing a transformation in thinking. This will happen because the tools promote creativity, collaboration, and communication, and they dovetail with learning methods in which these skills play a part.” (p. 21).

Notwithstanding, these tools may have many things in common; they can contribute to ELTL differently depending on various factors as the age of the learner, the place of learning, whether it is taking place in or outside classroom settings.

For Benson and Brack (2010), web 2.0 applications allow language students to generate and create content online which is a valuable active learning experience. Hogarth (2009) argued that web 2.0 tools put emphasis on user generated and shared content and collaborative working.

2.2.9. Paradigms for Web 2.0 Usage in EFL Teaching

Learning is a complex process (Allan, 2007). Understanding the theoretical ideas that underpin learning is very helpful and essential in that it enables researcher practitioners along with teachers to develop and deliver effective blended programs and activities. Web 2.0 support three learning theories which are socially oriented. They can be divided into three main movements: constructivism, socio-cultural theory, and situated cognition. Allan, (2007) pinpoints that the three are not mutually exclusive and there is an overlap between them. In explaining the importance of exploring the potentials of web 2.0 when

aligned with the learning theories mentioned above in this section, particularly social constructivism, McLoughlin and Lee, (2008b) said:

The affordances of these technologies, coupled with a paradigm of learning focused on knowledge creation and networking, offer the potential for transformational shifts in teaching and learning practices, whereby learners can access peers, experts, the wider community and digital media in ways that enable reflective, self-directed learning (p. 649).

Learning is now learner-centered, viewing learners as active participants in the construction of knowledge and meaning. In addition, learning should be based on real-life and authentic situations and should also be a social process. In this vein, constructivism is strongly and closely linked with learner centeredness (Allan, 2007). In an EFL context, knowledge construction using web 2.0 is linked to collaborative group work (Allan, 2007). Dillenbourg (1999) insists that this collaboration takes place only when learners share more or less the same level, working towards the same goal and work together. Allan further argues that collaborative learning is beneficial as it increases motivation; this is true due to the sharing of ideas and support of students to each other online when learning the foreign language. In the same point, Vygotsky (1978) suggests that learners perform better and at higher intellectual levels when they work in groups than when they work individually; this is referred to as “cognitive apprenticeship” or ZPD. The latter is similarly present in virtual communication processes which are increasingly playing an important role in cognitive apprenticeship (Allan, 2007). Hence, based on a social constructivist perspective, Web 2.0 tools provide EFL learners with opportunities to discuss, reflect, argue, explain, present, share, and give feedback to one another and to others online. Also, it can help these learners to develop collaborative and learning abilities which enable them to become self guided (Ehlers, 2009).

2.2.10. Affordances of Web 2.0 Technology

In terms of the affordances that various technologies provide, Benson and Brack (2010) distinguished three main categories: those that allow interaction between users; those that involve interaction with content; and lastly those that allow interaction between users and with content in which users are able to create content.

In this study, the focus is the third category, that is to say, interaction between users and with content which web 2.0 applications like wikis can offer. It is equally important to mention that the focus in the study at hand is restricted to wikis based on pure pedagogical and methodological grounds. Moreover, the rationale behind choosing this web 2.0 tool, among many others, is dealt with in a separate section in this chapter.

The following figure illustrates the different affordances of web 2.0. Web 2.0 facilitates interactivity between users in a real time where learners can control time.

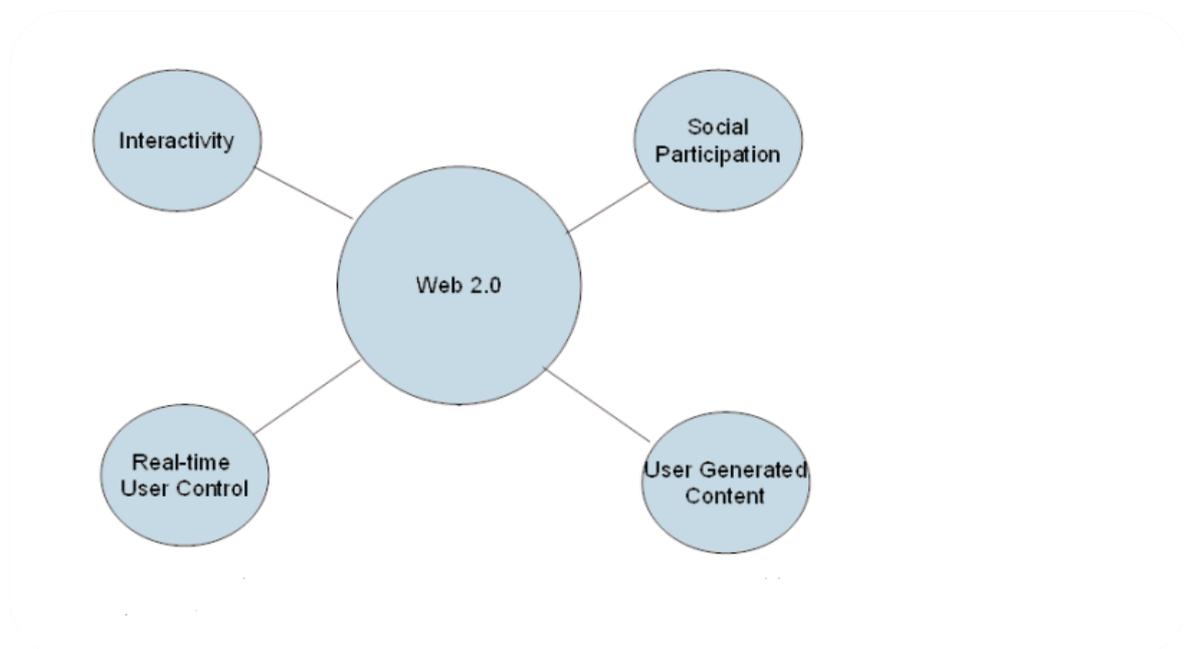


Figure 2.4. Web 2.0 learning Affordances

As such, learners become social participants who collaboratively interact to generate knowledge and content online. Web 2.0 tools have the potential to create more interactive learning environments in which learners create, produce, edit, and evaluate knowledge and content (Richardson, 2006). Also, these tools facilitate learner autonomy by allowing learners to choose both the time and place to access the input (Allan, 2007). In this sense, the learner is seen as an author, or publisher of input in the target language. Thus, Web 2.0 technologies have the ability to “support active and social learning, provide opportunities and venues for student publication, provide opportunities to provide effective and efficient feedback to learners, and provide opportunities to scaffold learning in the student’s Zone of Proximal Development” (Hartshorne & Ajjan, 2009; Vygotsky, 1978). In addition, Web 2.0 provides multifold opportunities for social interactions and collaboration among students and teachers.

Among the Web 2.0 technologies, social networking has more potentials especially as they provide both exposure to and production of authentic language output (Kern, Wore, & Warschauer, 2004). Also, they give learners the opportunity to noticing and negotiation of meaning (Thorne & Payne, 2005). As a good case in point, wikis have the potential to enable learners to correct their language output and interact with others to modify language structures (Thomas, 2009).

2.2.11. Wiki as an Instructional Tool

The word wiki is taken from the Hawaiian word ‘wiki wiki’ meaning ‘quickly’. For Benson and Brack (2010), a wiki is” a website which enables users to add to edit, and delete from the site’s content quickly” (p. 40). The wiki page includes a *discussion space* and a *history*; the former allows users to interact and discuss in writing, while the latter lists all the chronological changes that have taken place to the page with the identity of the

editor (Bensen and Brack, 2010). It is always possible to restore a page which has been changed or accidentally deleted (Bensen and Brack, 2010).

In terms of teaching and learning, wikis are more useful for group work as it provides high degrees of collaboration. Students can collaboratively work and their contributions are observed via the discussion and history (Bensen and Brack, 2010). It is worthy to mention that the wiki allows students to work in a more flexible atmosphere as it does alleviate the pain of meeting face-to-face.

In terms of student support, teachers need to make sure that students are able to use the tool required (the wikis in this case), according to Bensen and Brack (2010). For the present study, students were asked about their acquaintance with these tools, followed by a thorough explanation of what they are, and how they work; that was done during the piloting stage of the study.

Wikis are well-suited for collaborative learning unlike weblogs which foster rather a personal , diary-style content, wikis are meant to be more formal, inviting users to edit, revise, rewrite, in order to come out with a polished content on topics of interest. Another positive feature of wikis is the ability to keep a history of every single change done. Moreover, wikis offer discussion spaces where users can peer-review and comment on each other's work. According to MacDonald (2011), unlike blogs whose content cannot be changed or modified once published, wikis offer opportunity for group publishing and changing and revision of content; an advantage over blogs as well as other web 2.0 asynchronous tools. In sum, wikis are useful and powerful tools with many advantages; they require some technical competence on the part of both teachers and learners.

Wikis fall into the constructivist perspective to teaching and learning as they require learners to construct their own content (Seitzinger, 2006). Owing to its characteristics,

English learners in a writing class tend to be more active and engaged by working more autonomously and collaboratively. In this vein, every student is responsible for his/her writing and editing with the purpose of presenting a good product (Grimm 2012). Additionally, unlike blogs, wikis are based on the co-creation of content by groups of users and writing, amongst the four major skills, is primarily practiced with wikis,

2.2.12. The Rationale for the Wiki Selection in this Study

Actually the relationship of web 2.0 to language learning is said to promote diverse skills, namely listening, speaking, reading, and writing. Notwithstanding, it is up to teachers to choose which tool to use with their students depending ,first, on the skill intended to be developed, and second on the objectives set beforehand.

Accordingly, the selection of technologies is determined and guided by the set of objectives the teachers have already set for their students to meet (Benson & Brack, 2010). That is to say, there need be a match between the two. The rationale behind opting for wikis in this study is that wikis are more productive than communicative media forms (Laurillard, 2002).

In addition, wikis are asynchronous tools which mean that students and their teacher do not need to meet at exactly the same time to edit paragraphs and to revise them. This is a bewildering advantage over synchronous tools where both participants have to be present at the same time. It is considerably difficult a task o be accomplished by both the students and the teacher, given their schedule and everyday life commitments. According to MacDonald (2011), the asynchronous nature of wikis “provides the flexibility for students to participate while fitting their study to other life commitments”, (p.79).

2.2.13. The Writing Skill and Web 2.0 Technologies

Teaching with technology became a necessity for continued lifelong learning (Al-Mahrouqi & Troudi, 2014). As writing is in constant development as it is not merely restricted to pen and paper but also electronic based, it requires new skills to be integrated for ultimate benefit. Not only do new technologies influence what we teach, but also the ways we teach it. As a result, ICTs were used to enhance teaching and learning in general and the writing skill in particular as writing instruction relies more and more considerably on computer technologies (Hyland, 2003). In other words, teachers are continuously confronted with the demands to integrate ICTs into their classrooms. Nonetheless, some teachers have warmly welcomed them, believing in their potential to improve students' writing skills while others have been worried, considering these new technologies as a threat on the human interaction which is the basis of teaching (Hyland, 2003).

2.2.13.1. Technology and education

One of the most compelling areas of research is computer integration in foreign language learning in general and writing in particular as they were introduced to the language learning field in the 1960s (Hyland, 2003). ICTs in the form of e-learning and the internet continue to provide additional advantages to learning, enabling the blend of two different worlds namely: virtual multimedia learning materials and classroom learning (Chapelle, 2003). More importantly, technology integration allows for interaction between students for brainstorming and peer feedback as well as posting their writing online for peer feedback (Hyland, 2003). According to Warschauer (2002) technology is not an end in itself but a means and a tool; it is not a method but a source which can be utilized to assist other approaches. As teachers' classroom practices are a reflection of certain beliefs about teaching and learning (Hyland, 2003), computer use is the outcome of a shift from structural to cognitive to sociocognitive orientations in teaching (Warschauer & Kern,

2000). To highlight this point, the first generation of Computer Assisted Language Learning (CALL) had a structural orientation, prioritizing grammar and vocabulary. Later, second generation CALL shifted focus to learners, requiring them to use computers for problem solving. Finally, computer has taken a sociocognitive orientation, demanding learners to interact, not with the computer, but with each other via the computer (Warschauer & Kern, 2000). According to Hyland (2001), it is not new technology that eventualises in writing development, but rather the form of instruction through the appropriate task and support. He further confirmed that it is no question that technology is integrated in education; it is the question how it can be best applied to achieve ultimate objectives. New technologies affect writing in the following ways according to Hyland (2003):

- They influence drafting, editing, proofreading, and publication processes.
- They facilitate the combination of written texts with visual and audio media.
- They encourage nonlinear writing and reading processes.
- They alter the relationship between writers and readers.
- They blur traditional oral and written channel distinctions.
- They facilitate entry to new online discourse communities.
- They increase the marginalization of writers and texts isolated from new writing technologies.

2.2.13.2. Writing with web 2.0 tools

Word processors are crucial writing instruments, but they do not exceed being tools where texts are written to be printed as they belong to the so-called Web 1.0 technology. Yet, the advent of the internet yielded significant changes in the technology of writing (Warschauer, 2007). CMC via web 2.0 tools is more useful to develop writing than word

processing as it encompasses a myriad of technologies. CMC and the internet have shaped the uses of computers for language learning at the end of the 20th century (Eastment, 1996). Also, with the internet, computer use in class and outside has changed from a tool of processing and displaying information to a tool of communication (Warschauer, 1998). Online writing, using web 2.0 tools, offers connectivity between writers (Hyland, 2003) both synchronically and asynchronously as it allows learners of a given language to interact with other learners or native speakers of that language or any part of the world (Warschauer, 1998).

With regard to writing development, web 2.0 tools offer writers more potential to focus on audience, text, and ideas exchanging with fellow peers (Hyland, 2003). Canagarajah, Harklou, Hyland, and Warschauer (2003) argued that “due to its highly public and multidimensional nature, the web (via web 2.0) is an ideal writing medium for students to explore and develop their evolving relationship to their community, culture, and world” (p.164). Moreover, web 2.0 activities promote opportunities for interaction both in class and out-of-class discussions (Warschauer & Maskill, 2000). Kern, Ware, & Waschauer (2008) pinpointed the benefits of networked based learning and writing using web 2.0 over face-to-face learning as resulting in increased participation of students; giving students more time to develop and comment, resulting may be in more precision and sophistication in expression; fostering collaborative work among students; promoting motivation, particularly students’ involvement in learning; reducing anxiety and; yielding positive effects on students’ writing ability (p.282).

Table 2.1

Comparison of web 1.0 and web 2.0 (adopted from Solomon & Schrum (2007, p.23)

Web 1.0	Web 2.0
Application based	Web based
Isolated	Collaborative
Offline	Online
Licensed or purchased	Free
Single creator	Multiple collaborators
Proprietary code	Open source
Copyrighted content	Shared content

2.2.13.3. Writing online

Through writing online, students' written products can be made widely available to others (Kahmi-Stein, 2000) and the exchange of their drafts is made more efficient (Palmquist, 1993). Writing online provides learners resources to promote peer feedback (Ware & Warschauer, 2006), and offers students a plethora of opportunities, particularly enabling peer interaction by providing and receiving feedback to and from one another (Chao & Lo, 2009). In comparing between technology-enhanced writing and traditional writing Ware (2004) argued that writing online assists in providing an audience of peers besides the teacher, which in turn increases awareness of audience. Students attribute more importance and focus to form rather than content when providing each other feedback (Wang, 2009). In a similar study, Ge (2011) reported that the participants in the study focused more on pinpointing grammatical mistakes in their peer writings only a few of them opted for content and organization. Based on the models proposed by Flower, Carey, & Hayes (1986) and Jones (2008) the types of feedback depend primarily on the feedback providers. In other words, less experienced writers provide surface-level feedback related to grammar and mechanics while more experienced writers provide more sophisticated feedback related to content and organization.

Conclusion

The primary purpose of this chapter was to present a theoretical framework for the study, namely constructivism and socio-constructivism which support using technology in general and web 2.0 in particular to enhance learning. The chapter discussed and reviewed the literature related to the use of web 2.0 tools in relation to the writing skill. The writing skill was discussed in relation to its nature, approaches, the writing process, errors, and feedback. The review provided a thorough explanation about the process approach, the writing process, and teacher feedback as they were key features to the current study. Moreover, the review of literature offered a detailed account on web 2.0 tools as effective writing tools. In the following chapter, the methodology used in the study will be profoundly discussed along with a description of the blueprint of conducting the current research.

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CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter demonstrates the methodology utilized in the study starting from the research design, and the rationale behind using the quasi-experimental design. Also, the research methods used, providing a rationale for choosing the mixed-methods approach to conduct the study. The population and sample (participants) along with the sampling procedure, the research setting, data collection instruments and procedures, and finally, data analysis tools are thoroughly explained.

3.1. Framework of the Research Design

The design of the study follows a quasi-experimental design with pretest and posttest design assigned to both experimental and control groups while treatment activities assigned only to the experimental group. The rationale behind this design was that participants were not randomly selected but rather two intact groups, among six, were selected to participate. According to Creswell, (2012) quasi-experiments “include assignment, but not random assignment of participants to groups”. The researcher thus followed the quasi-experimental design because it was not possible to create new groups (both experimental and control) randomly to participate in the study while there already are intact groups, already existing in the educational setting. The quasi-experiment can be employed because creating new groups will disrupt classroom learning, if research is to take place in schools and universities (Creswell, 2012).

The study used the mixed-method approach which is now more popular and widely used by researchers for its numerous advantages (Creswell, 2014; Creswell & Plano Clark,

2011; Teddlie & Tashakkori, 2009). It designed an experiment where the participants had to write online using web 2.0 tools where they receive feedback on their writings. To meet this end, both quantitative and qualitative data collection instruments were opted for. Mixed method approach was defined by Tashakkori & Creswell (2007b) as “research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or program of inquiry” (p.4).

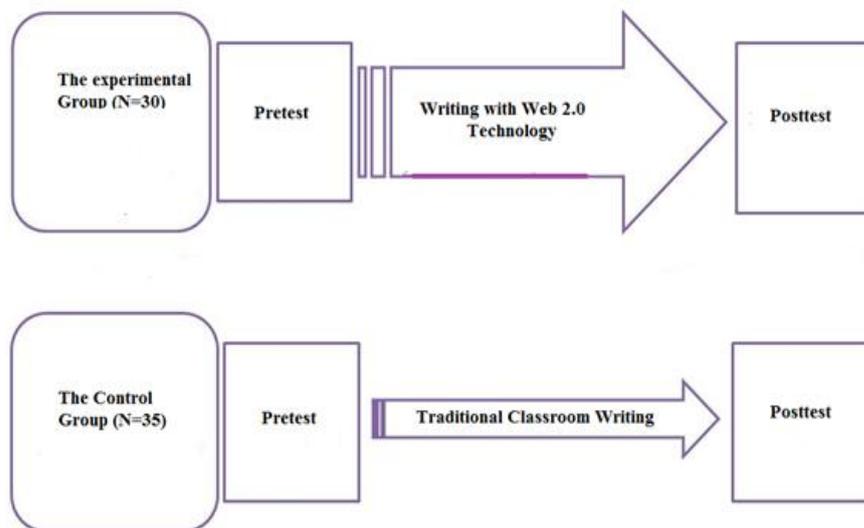


Figure 3.1. The quasi-experimental design of the study

In order to have an idea about the students’ writing proficiency level and to highlight any significant differences between their paragraph writing skills before and after the involvement in web 2.0, pretests and posttests were assigned to students in both groups, and were corrected by the teacher researcher based on five-criteria scoring rubric embracing, content, organization, grammar and structure, vocabulary, and mechanics. The scores obtained from the pretests and posttests were used as data to reveal inferential statistics that would enable the testing of the hypotheses set to this study as well as the

interpretation of findings. In addition, three questionnaires were used to collect quantitative data, and they were as follows: 1) an entrance questionnaire about students' perceptions about writing, their writing difficulties, and computer knowledge, 2) a pre-post questionnaire about feedback before and after the integration of web 2, in the form of wiki, and 3) an exit questionnaire about students' perceptions towards the integration of web 2.0 technology to enhance the writing skill.

Qualitatively, however, corpus analysis of the students' paragraphs was used to examine students' writing improvements before and after the integration of web 2.0 technology. In this sense, corpus analysis was used as a confirmatory tool to pre-post tests. Besides, corpus analysis was used to trace students' writing development in the interval period in a systematic manner. The second qualitative tool applied in this study is the students' semi-structured interview. The latter was designed to obtain detailed answers about students' perceptions of web 2.0 technology to develop the writing skill.

Having said that, neither of the two approaches alone is sufficient to meet the needs of the study, to answer the research questions, or to test the hypotheses. In the same vein, Creswell and Plano Clark (2011) asserted that "research problems suited for mixed methods are those in which one data source may be insufficient" (p. 8). For that, the limitations of one approach can be counterbalanced by the strengths of the other one, and a combination of the two approaches was necessary as it provides a fulsome picture of the phenomenon under investigation than either approach by itself. Also, this approach is most appropriate in this study because the research questions range between qualitative and quantitative; accordingly, using the mixed approach can be the best choice for the researcher to best understand the research problem, and accurately answer the research questions (Creswell, 2012). Given that both approaches viz. the qualitative and quantitative have limitations, all biases could be neutralized or even cancelled when mixed

together, with the aim of collecting different data necessary to answer the research questions and test hypotheses Creswell (2014). Also, the results of one method can help inform the other one. Moreover, the need for a mixed method approach exists because the researcher felt the need to explain the numerical data (the paragraphs' scores) by analyzing them qualitatively by means of a corpus analysis. In other words, using narrative data by providing examples of students' written production before and after the experiment can assist and explain the numerical data and help gain additional insight.

It is noteworthy that within the mixed-method approach, data were collected sequentially; that is, a questionnaire to gauge students' perceptions about writing and their writing difficulties and computer knowledge was administered first, followed by the pre questionnaire about feedback and the pretest. Next, the intervention in the form of web 2.0 tool, the wiki, integration was launched lasting for 12 weeks. After that, the post-test and corpus analysis of students' texts was accomplished. Finally, the post-treatment questionnaire and the semi-structured interview, to check students' perceptions of the web 2.0 integration to develop the writing skill, were conducted last. As such both numeric as well text or narrative information collected from the beforehand mentioned tools will be provided.

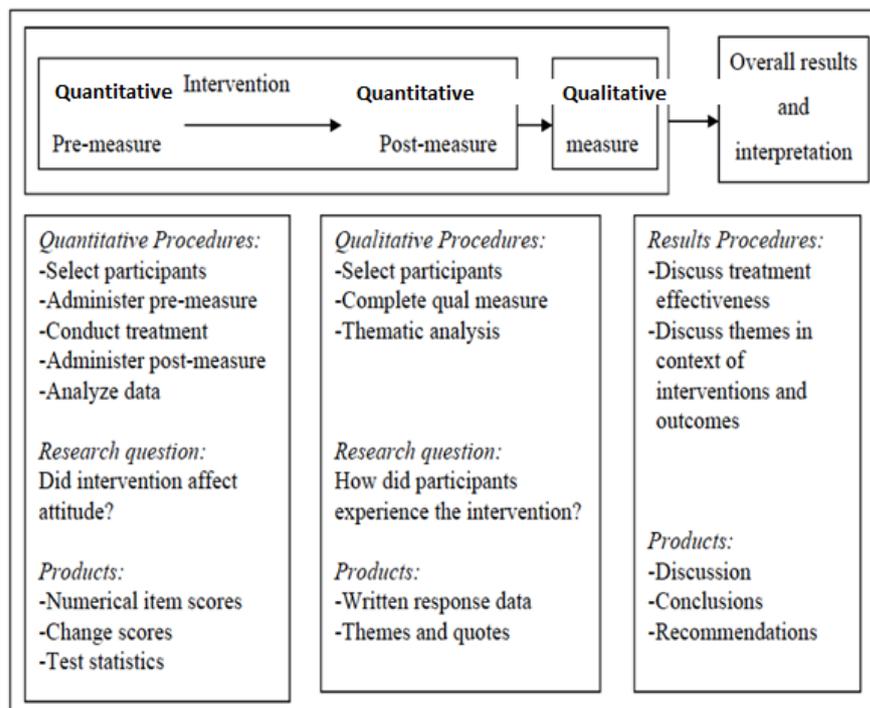


Figure 3.2. The mixed-method research design

3.2. The Research Setting

The mode of instruction followed in the Written Expression course in this study is a blended learning mode where students meet face-to-face in class and online through the wiki page. Using the online learning mode was at home and not in a language lab due to the unavailability of the language lab on the one hand, and the size of the class on the other hand. Accordingly, there are two research settings in this study, *videlicet* the conventional classroom in the Department of English Language and Literature at the Mohamed Lamine Debaguine, Setif 2 University of and the online platform in the wiki page of this study. In class, students attend lectures weekly lasting for one hour and a half where they are taught how to write an effective paragraph following the stages of the writing process. Besides, a practicing session (tutorial session) which lasts for one hour and a half takes place every week where students are given prompts to write paragraphs of a particular type on light of what was covered in the lecture. In class, they only start prewriting where they use

different pre-writing strategies to generate maximum ideas on the topic at hand. Online, however, students do the drafting of their paragraphs on which they receive feedback, and then do the revising and editing of their writings.

3.3. Participants

The population of this study is Second Year students of English at Sétif 2 University enrolled in the academic year 2014/2015, and whose number is 230 students divided into six intact groups. The sample of the study is composed of two second year groups, a total of 65 students in which one forms the experimental group (EG) (n 30) and the other the control group (CG) (n 35). The experimental group comprised 35 at the beginning, but five students were excluded from participating in the study because they could not afford internet connection in any possible manner (be it at home, in the campus, or even outdoor), the experimental group is comprised of 30 students (see table1below).

Table 3.1

The number of participants in the control and the experimental group

Groups	Participants
Experimental Group	30
Control Group	35
Total	65

Their age ranges between 19 and 25 years old. They have homogeneous English learning background with an average of 7 years.

As for the method of selection, the study followed a non-probability sampling in the form of convenience selection of participants in which two groups out of six intact groups were selected. Daniel (2012) defined non-probability sampling as “a sampling procedure that does not give some elements in the population a chance to be in the sample” (p.66).

As a subtype of non-probability sampling, purposive sampling refers to “a procedure in which elements are selected from the target population on the basis of their fit with the purposes of the study and specific inclusion and exclusion of criteria” (p.87). According to Khan (2014), purposive sampling is used when the researcher intentionally and deliberately draws a sample from the population which he deems would be representative of the entire population.

The rationale behind convenience sampling is that it was difficult for the researcher to apply randomization because of the students’ study schedule, which made it difficult to randomly create new groups out of the entire population and bring them outside or beyond class time. Not only does this affect their learning (Creswell, 2011), but also make learners attend the same writing course twice (as part of their schedule and as participants in the study) as all second year students follow the same writing syllabus. As the study is based on the teaching of Written Expression course in class and online, and not merely investigating specific elements in the writing skill, it was more appropriate to take two intact groups as they were divided by the administration to create a more authentic and natural learning atmosphere.

The reasons for choosing second year students are many. Firstly, the study is based on paragraph writing; it is only in the second year where students are introduced to this notion. First year students deal with the basics of writing at word and sentence level such as the parts of speech and the sentence, parts of the sentence, sentence problems, and as such they have limited, if at all, paragraph writing skills. Third year students, on the other hand, deal with essay writing and the different types of texts; that is to say, genre writing. This way, they do not fit with the purpose of the study. Secondly, the second year writing program utilizes the process approach to teaching paragraph writing through its different stages: pre-writing, drafting, revising, and editing. Similarly, this study is based on the

process approach to writing; thus, it helps to meet the aims of the study. Thirdly, the researcher, a written expression teacher herself, in Moamed Lamine Debaguine- Setif 2- University where the study took place, had had a direct access to second year students of English in the Department of English in the same University.

Paragraph writing, not essay writing, was chosen because mastering paragraph writing should precede essay writing which is itself a combination of paragraphs. Put differently, students need to master the parts before the whole. Also, writing a paragraph takes relatively a short time compared to writing an essay which requires a longer time. In the same vein, essays take a long time to be corrected by the teacher. Moreover, as mentioned in the previous paragraph, second year written expression program is mostly based on paragraph writing; essay writing is only dealt with in the second semester which is much shorter than the first semester; hence, this period is not adequate to conduct an experiment.

Every participant in the study, from both the experimental and control groups took the pretest to ensure that both groups are equivalent in terms of writing proficiency level, and a t-test was performed to compare their general scores on the performance test. As a result, no significant difference in their writing proficiency as revealed by the scores and the Mean was found between the two groups in that *P* value was greater than 0.05, entailing that both group writing proficiency is approximately the same.

Students were informed face to face in class about the study where the objectives of the study were thoroughly explained. After that, they were asked for permission to participate, and were informed that they can withdraw from the study any time they choose. More importantly, they were clearly assured that their participation will not affect their grades in the subject and will be kept confidential along with the data obtained in the study.

3.4. Data Collection Instruments

This study followed a mixed method approach where both qualitative and quantitative data collection instruments were used. Also, as for the timing of collecting data, the phase of data collection employed the embedded mixed methods sequential strategy. That is to say, it combines the collection of both types of data within an experiment, in which the data collected after conducting the experiment is the primary data, and the data collected outside the experiment (before, during, or after) is the secondary data (Baran & Jones, 2016). The reasons to employ this strategy is the researcher's need to answer other research questions which cannot be answered by means of the data collected primarily, in which case making the secondary instrument sequential or supplemental (Creswell, Fetters, Plano Clark, & Morales, 2009). That is to say, it is used owing to the insufficiency of the primary data to answer all the research questions. According to Baran and Jones (2016) the embedded design for data collection may be used to improve the results of the study or to explain the participants' reactions to the experiment. As regard the data collection in this study, it was as follows: an entrance questionnaire gauging on students' perceptions of the writing skill and their writing difficulties along with technology knowledge, the pretest of writing performance prior to the intervention, the pre-questionnaire about writing and feedback before the integration of web 2.0 technology, the posttest of writing performance after the integration of web 2.0 integration, the corpus analysis of students' paragraphs, the post questionnaire about writing and feedback after the integration of web 2.0, and finally the post-treatment (exit) questionnaire and the semi-structured interview about students' and perceptions of integrating web 2.0 to develop their writing skill.

3.4.1. The Writing Performance Tests (pre and post tests)

After taking the students' consensus to participate in the study, all students in both groups (the CG and the EG) were asked to write a paragraph using the following prompt:

“education is crucial to individuals in that it provides them with greater jobs opportunities” (See Appendix E). The prompt was chosen by the researcher because it was believed to be simple and familiar in that all students can write about the topic given their level as second year students. The students were allocated an hour and a half to write the paragraph, each group in its own class. Assigning students the same writing prompt allows the researcher to ensure that all participants are equivalent in terms of writing proficiency and enables her to trace the paragraph writing areas already covered in class.

For this end, the researcher developed a scoring rubric which was adapted from Brown (2007) and Jacobs, Zinkgraf, Wormuth, Hartfiel, and Hughey (1981) reflecting those areas. These areas include macro writing features which are content and organisation. First, content includes two micro writing features namely support, in terms of unity and adequacy, and organization, covering both coherence and cohesion. Second, form covers three micro writing features, namely grammar and structure, vocabulary, and mechanics and format. Accordingly, the paragraphs were corrected following a scoring rubric covering five writing features, namely: content, organization, grammar and structure, vocabulary and mechanics and format. The scoring was out of twenty (20) in which every feature among the five features is attributed the mark of four. Following the description criteria (see Appendix F) given to each writing feature, the rater assigns a mark ranging, from high to low, from four to one where four is the highest and one is the lowest. After obtaining the scores for both groups, a comparison was made between the two groups' paragraph scores to see if there are any significant differences between the mean scores of the paragraph scores in both groups. It is noteworthy that the pre-test was given in the first week of the experiment, while the post-test was given in the last week of the experiment, which is week 14 (See Appendix H).

In the post-test, students in both groups were asked to write a paragraph on the following prompt: *people choose to study English in university, among a variety of educational fields*. To ensure results' accuracy between the pre-test and post-test, the same time was allocated for students to write the paragraphs, that is one hour and a half. As about the interval period between both tests, which lasted from week 2 to week 14, it was devoted to writing paragraphs using the web 2.0 tool, the wiki.

3.4.2. The Wiki Writing Platform

This research tool was employed to answer the following research question: to what extent did students' writing errors decrease after the involvement in wiki writing? The intervening period between the pre-test and the post-test was devoted to writing the paragraphs on the wiki page. A compilation of 420 paragraphs written by 30 students was collected. The corpus of students' paragraphs was the source of data to be analyzed qualitatively in order to answer research question (RQ 4). According to David & Shutton (2004), one of the most prevalent forms of qualitative data analysis is content analysis. However, only a sample of 126 paragraphs produced by nine students in the interval period was selected to be analyzed because it is difficult to analyze the 420 paragraphs. The nine students were selected using systematic sampling among the 30 participants. Patton (2001) describes purposeful stratified sampling as samples within samples and that samples may be arranged in strata or nested by selecting specific units that vary according to a particular main dimension.

The researcher opted for qualitative paragraph analysis to support the quantitative findings because the qualitative analysis provides more concrete examples of students' texts with particular reference to the five writing features (content, organization, grammar and structure, vocabulary, and mechanics and format). Thus, both grammatical and non-grammatical features were the target of the paragraph analysis. First, the researcher

corrected and scored students' paragraphs using the same scoring rubric used in the pretest, after the paragraphs were read thoroughly, highlighting either the presence or the absence of each sub-criterion respectively. Second, a comparison within nine students in the experimental group is drawn between the pre test and post test as well as between a paragraph and another chronologically, to show evidence of writing development and error minimization after errors produced in every feature were counted, before and after the experiment.

As for the stages of the analysis of errors, they were as follows:

- 1) Students' paragraphs were collected,
- 2) Paragraphs were read and errors were identified and counted,
- 3) Errors were described and classified under categories, and
- 4) Possible explanations of the sources of errors were provided.

3.4.3. The Questionnaires

Although the questionnaire reliability and validity are questioned by some researchers (Bell, 1999; Saunders, Lewis, & Thornhill, 2007), it was used in this study because it has some advantages which can serve the objectives of this research. It enables the researcher to collect the maximum amount of data in a short time, allows for rapid processing of data, and yields increased consistency and reliability of the results as they decrease the researcher bias.

The study consisted of three questionnaires which were distributed to participants in the experimental group prior to the experiment. The first questionnaire examined students' perceptions of the writing skill, their writing difficulties, and computer knowledge, the second questionnaire is a pre-post- questionnaire about writing and feedback before and after the integration of web 2.0 technology. The questionnaire contains identical items to

be tested and compared statistically for any significant difference in students' perceptions. The third questionnaire measured students' perceptions of the use of web 2.0 integration to develop the writing skill.

The questionnaires were entitled depending on the objective of each one. They started with an opening greeting and an introduction explaining to the participants what is the study about as well as its purpose. In addition, participants were ensured that there are no right or wrong answers, the reason for which they were requested to answer as honestly as possible. Similarly, they were ensured about the anonymity of their responses, and asserted that their responses will be used solely for research purposes in order to help improve the writing skill. Finally, the participants were thanked for their participation and valuable time.

The questionnaire items were in the affirmative declarative form; that is they were neither in the negative form nor in the interrogative form. According to Dornyei & Taguchi, (2009) questionnaire items should not be worded or constructed negatively. For statistical purposes, after the administration, each response option was given a number.

3.4.3.1. The entrance questionnaire

This questionnaire was administered to students in the experimental group prior to the intervention. It was comprised of three sections, the first two of which were background sections while the third section was related to students' writing perceptions and difficulties. The first section was a "demographic information" section (see Appendix A) which asked students about their (Q 1) gave three age categories that students were required to select from: a. 18-21, b. 18-25, or c. more than 25 years old (Q2) gender, and (Q3) the total years for which they have been studying English, choosing between: a. 0-5 years, b. 5-7 years, or c. more than 7 years. The background information section was done to ensure that the

sample selected are homogeneous, share the same characteristics in terms of age, gender, educational background, English learning experience; thus, they can be representative of the population of the study. Doing so would contribute to the internal validity of the study and enable the researcher to the generalisability of the results.

Knowing the participants' computer literacy skills is mastering the computer applications both online and offline by the participants is of paramount importance for this study because the study's essence of research is web-based learning. For this end, it was important to embark on knowing the students' computer knowledge to ensure a successful experiment with web 2.0 tool, the wiki. Accordingly, the second section, "computer knowledge' section" (see Appendix A) contained 11 questions: (Q1) whether they possessed computers at home, (Q2) whether they used the internet, (Q3) whether they had internet access at home, (Q4) gave students four options (a. 1-3 year, b. 3-5 years, c. 5-8 years, and d. more than 8 year) to indicate the amount of time for which they have been using it (Q5) gave the students five options (a. every day, b. several times a week, c. once a week, d. once/twice a month, and e. less than once a month) to indicate the frequency of internet use, (Q6) they rated their computer skills ability ranging from weak, good, very good, and excellent, (Q7) whether they thought internet knowledge is essential for students, (Q 8) whether they thought online learning tools and applications help to enhance learning, (Q 9) whether they knew web 2.0 technology, (Q 10) whether they knew the wiki, and finally (Q11) whether they had used the wiki before.

To gain an understanding of students' perceptions of the writing skill and their writing problems, the third section of the questionnaire, contained 10 closed-ended items, and investigated their perceptions towards writing and their writing difficulties (see Appendix A). This helped in diagnosing the problems and difficulties that might face students in diverse writing situations. The first question (Q1) asked students about the most important

skill among the four skills, namely reading, writing, listening, and speaking, (Q 2) was about the most difficult and complex skill for students among the four skills, in (Q 3) students were required to answer by yes or no to whether they do not write in English because writing is difficult, in (Q 4) students were also required to answer by yes or no to whether they are not confident to write in English because they think their English is not good, in (Q 5) students needed to answer by yes or no to whether they do not write because they lack the necessary skills, (Q 6) gave the students five options which may constitute their writing problematic areas. These options were as follows: I cannot generate ideas, I cannot organise ideas, I have limited vocabulary and I cannot use appropriate words and expressions, I have limited grammar knowledge, I have problems with mechanics (spelling, capitalization, punctuation), (Q7) asked students about which writing aspect is more difficult, form or content, (Q8) required a yes/ no answer and asked students whether time constraints prevent them from practicing enough in English, (Q9) required students to answer by yes or no to whether overcrowded classes prevent them from benefiting from the teacher's feedback, and finally (Q10), following a yes/ no type, it asked students whether classroom time constraints prevent them from benefiting from the teacher's feedback

3.4.3.2. The pre-post questionnaire about writing and feedback

The pre questionnaire was administered at the beginning of the study, before the experiment commenced, and the post questionnaire at the end of the study, once the experiment was completed. This questionnaire gauges on students' perceptions about writing and feedback before and after the integration of web 2.0 tool, the wiki. The questionnaire was self-designed by the researcher on the basis of the research objectives and research questions. It, thus, used a pre-post design including 10 identical close-ended items (see Appendix B). In this pre and post questionnaires, the 5 Likert scale was

adopted, in which participants have to choose one response from the following scale ranging from positive to negative 1=strongly agree, 2= agree, 3= neutral, 4= disagree, 5= strongly disagree. The 5 Likert scale was used as it is simple, flexible, and reliable (Dornyei & Taguchi, 2009). Students were asked to rank their degree of agreement or disagreement to the first the following questions: (Q1) I face many difficulties with writing, (Q2) going through all the stages of the writing process is difficult to be achieved, (Q3) time constraints prevent me from practicing adequately, (Q4) I do not appreciate receiving feedback on my writing because I am embarrassed, (Q5) the feedback I receive on my writing is not enough, (Q6) the teacher's corrective feedback is not helpful, (Q7) the teacher's corrective feedback is not comprehensible, (Q8) the teacher does not manage to provide all the students with corrective feedback on their writing, (Q9) I do not receive enough feedback at the different stages of the writing process, and finally (Q10) feedback improves my paragraph writing skills in form and content.

3.4.3.3. The post treatment questionnaire

The post treatment questionnaire was administered at the end of the study. As web 2.0 tools are considered a new mode of learning to the study participants, examining their reactions and perceptions about writing in general and writing with web 2.0 tools and their integration was necessary. Accordingly, a post treatment questionnaire was used in this study to collect data about students' perceptions of web 2.0 integration to develop their writing skill and to what extent it was successful and effective. Using the yes/no scale, the questionnaire (see Appendix C) consisted of 16 closed-ended items related to web 2.0 affordances in developing writing as follows:

Q1: I liked learning with a computer

Q2: The wiki allowed me to work at my own pace

Q3: I enjoyed writing using the wiki to develop my writing skill

Q4: Wiki is an effective way of teaching writing in English

Q5: Wiki could improve the quality of academic writing

Q6: Wiki motivated me into more active, interactive writing

Q7: Compared to classroom writing, I could see all my peers' writing in a wiki which is better and more interesting

Q8: Wiki motivated me to write

Q9: Wiki allowed me to easily interact with my teacher and peers

Q10: Wiki allowed me to exchange ideas about writing with my teacher and peers

Q11: Wiki helped me in the revising stage

Q12: The revising stage is easier using the wiki than in the classroom

Q13: The editing stage is easier and clearer on the wiki than in the classroom

Q14: The flexibility of writing online via wiki helped me write better without time constraints

Q15: My paragraph writing skills have improved by using wiki

Q16: Wiki gave me more chance to practice writing

3.4.4. The Interview

While the post-treatment questionnaire items examined specific points in students' perceptions about using web 2.0 technology to develop writing (see Appendix D), the semi-structured interview (see Appendix E) was also used to examine students' perceptions about web 2.0 tool, the wiki, allowing students to verbally express their feelings and opinions without being restricted to specific answers as it was the case with the post-treatment questionnaire. Hence, the interview was used as a supplementary and complimentary tool to the questionnaire to provide more information about students' perceptions towards the implementation of web 2.0 technology as well as get full insights and understanding about their experience of web 2.0 integration in their written expression course to develop the writing skill.

Amongst the three existing types of interviews, scilicet the structured interview, the unstructured interview, and the semi-structured interview, the last one was settled upon. According to Mackey and Gass (2005), the semi-structured interviews can be employed as they “allow researchers to examine phenomena that are not directly observable” (p.137) such as learners’ attitudes and perceptions. Furthermore, given their interactive nature, interviews allow for additional information elicitation (Mackey & Gass, 2005) and are a method of acquiring rich, detailed and in-depth information about participants’ experiences and views on a particular matter (Turner, 2010).

Interviews were carried out with a sample of five students from the TL group who volunteered to participate in the interview. According to Mackey and Gass (2005), in qualitative research such as interviews, a small size of participants can be sufficient as little concern is given to generalizability issues, unlike quantitative research. The rationale behind interviewing only five participants was grounded on the following considerations:

- The interview was not a primary source of data collection, but rather a secondary supplementary to get a clearer view of students’ perceptions of web 2.0 implementation.
- Only the participants who expressed willingness to participate in the interview were part of the study.

The interview questions were divided into two main sections (see Appendix D). The first section has attempted to elicit students’ attitudes, perceptions, and overall experience with web 2.0 implementations, and the second section focused on the perceived contribution of web 2.0 technology (the wiki) in developing the writing skill.

Section 1: Students’ Attitudes, Perceptions, and Overall Experience with Web 2.0 Implementation.

Question 1: What do you think of integrating web 2.0 technology (in the form of wiki) into the classroom to develop your writing skill?

This question was asked to get information about the students' opinions and attitudes towards integrating web 2.0 technology in the form of wiki as a tool to develop their writing skill.

Question 2: How do you describe your experience with web 2.0 integration?

This question was particularly asked to know about students' experience with web 2.0 (wiki) writing through a 14-weeks period. The experience could be positive, helpful, and enjoyable, or rather negative, not helpful, and boring.

Question 3: What web 2.0 affordance have you mostly appreciated?

Given web 2.0 multiple affordances, this question was asked to know about the students' mostly appreciated asset of web 2.0 which made a difference in their experience.

Question 4: What have you not appreciated about writing using the wiki?

This question was asked to know what students have not appreciated about wiki writing which might have hurdled their writing.

Section 2: Students' Perceived Usefulness of Web 2.0 Technology (the wiki) in Developing the Writing Skill.

Question 5: To what extent has the wiki contributed to minimize some of your writing problems, and hence, develop your writing skill?

With particular emphasis on writing, this question has aimed at encouraging students to freely express their opinions about the contribution of wiki writing in reducing some of their writing problems, and ultimately developing their writing skill.

Question 6: What writing aspect(s) did the wiki help developing mostly?

The aim behind asking this question was to determine which writing aspect(s) has developed after students were involved with wiki writing.

Question 7: How effective was web 2.0 writing, using the wiki, in developing your writing skill compared to classroom writing?

This question was concerned with finding out whether students were more in favor of wiki writing against classroom writing, and whether they thought it is more effective in developing their writing skill. In addition, this question was meant to make students draw a comparison—and contrast between the two types of writing to determine which characteristics they would ascribe to each, which would make one surpass the other, possibly.

3.5. Data Collection Procedures

3.5.1. Questionnaires' Data Collection Procedures

As regard the administration of the three questionnaires, it was group administered and by hand distributed in a normal classroom in the Department of English during a written expression session. The researcher was present during the process to answer any questions, and make clear any ambiguities on the one hand, and to ensure that all the questionnaires were returned, on the other hand. Dornyei and Taguchi (2009) argued that there are more chances to recover all the questionnaires which are handed and group administered than those which are mailed. More importantly, they further argued that group administration of questionnaire is the best choice especially when the participants

are language learners within educational contexts, which holds true for our study. The questionnaire's statements were read out loud to participants before they started answering. The time taken to answer the questionnaires was 20 minutes for the entrance questionnaire and the post-treatment questionnaire, 15 minutes for the pre-post questionnaire (15 minutes in each), and all the questionnaires were returned in the same day.

3.5.2. Interview Data Collection Procedures

As regards the method of conducting the interview, the five participants were gathered in a room in the department of English in Setif 2 University. Students' answers to the interview questions were audio recorded to be transcribed afterwards. The interview was one-on-one in which each student was interviewed alone. As the participants are second year students of English language and literature, the interview was conducted in English; however, student were allowed to use some Arabic word in case they are stuck to find the appropriate word because the concern is to express the idea as clearly as possible. The interviews were analyzed by coding the data, indentifying themes by grouping codes into themes, and minimizing the themes into categories. The participants took their time to answer the questions and were not pressed to answer or to finish in a fixed time frame. Still, a span of 20 minutes was maximally needed for all students to answer the questions.

3.6. The Pilot Study

Piloting in this study encompasses three tools, the piloting of the questionnaires, the piloting of online writing using the wiki page, and the piloting of the interview. The objective of a pre test or piloting of the questionnaire is to examine its effectiveness on a selected sample from the target population (McCormack & Hill, 1997). Piloting is of paramount importance as it may help address the following points as pinpointed by Cohen, Manion, and Morrison (2007):

- To check the clarity of the questionnaire items, instructions, and layout;
- To gain feedback on the validity of the questionnaire items, the operationalization of the constructs, and the purpose of the research;
- To eliminate ambiguity or difficulties in wording;
- To check readability levels for the target audience;
- To gain feedback on the type of question and its format;
- To identify omissions, redundant, and irrelevant items;
- To gain feedback on leading questions where all responses are similar;
- To get feedback on the appearance of the questionnaire;
- To check the length of the questionnaire (being very long or very short)
- To check the level of ease or difficulty;
- To identify misunderstood or non-completed items.

3.6.1. Piloting of the Questionnaires

The piloting of the three questionnaires took place at two different timings before they were used to collect data. The piloting of the entrance questionnaire and the pre-questionnaire was initiated in late November 2014 while the piloting of the post-questionnaire and the post-treatment questionnaire was launched in late April. The piloting of the three questionnaires was carried out to ensure the validity and reliability of the instrument. The pre testing of the questionnaires was conducted with four (4) second year students (one male and three females) belonging to other groups in the Department of English Language and Literature. These students share almost the same characteristics with the sample of the study in terms of age, educational background, and English instruction experience. The researcher collected feedback needed to make the necessary changes. It is worthy to note that the piloting was conducted with the presence of the researcher for the sake of directly observing the participants' reactions and answer their

questionnaire. This allowed the researcher to take direct notes about the problematic points in the questionnaire. After the pilot testing, a debriefing session was held with the testers who were asked a series of questions regarding the questionnaires design to ensure that they did the job they were designed for, and that they measured what they were supposed to measure. The questions targeted the following points:

1) The time it took them to answer the questionnaires:

The time needed to answer the questionnaires was very close between the four participants ranging between 17 to 21 minutes for the entrance questionnaire and the post-treatment questionnaire, and 14 to 16 minutes for the entrance questionnaire. This suggests that the time allocated by the researcher to finish the questionnaires was well founded and well suited.

2) The clarity of instructions:

As for the clarity of instructions, the four participants had problems with understanding the 5 Likert scale used in the pre-post questionnaire ranging from strongly agree to strongly disagree, where the “not decided” option was missing in the scale. Apart from this, the participants reported the instructions to be clear.

3) The clarity of the wording of the questions:

The wording of the questions was clear to the four participants resulting in no modifications of the questions wording. Facing no ambiguities in the questions could be due the fact that the participants are learners of English

4) The suitability and relevance of the questions

After the answering session was over, the researcher discarded seven questions from the third section of the entrance questionnaire in as they were irrelevant and did not provide

useful data. The questions were not focusing on writing difficulties and problems but solutions to writing problems. Also, three questions were omitted from the post-treatment questionnaire as they were redundant and, thus, yielded similar answers by the participants. As a good case in point, the question “Wiki helped me improve my writing skill” was omitted because it meant exactly the same as the question “My paragraph writing skills have improved by using wiki”

Also, the question “The flexibility of commenting on each other’s work via wiki helped me write better” was omitted as peer correction was not the focus of this study; thus, it was irrelevant.

Moreover, the question “I felt at ease when I wrote online using a wiki” was omitted as it meant more or less the same as the question “I enjoyed writing using the wiki to develop my writing skill”.

After submitting all the modifications, the researcher wrote the final version of the questionnaires which were then ready to be administered to the participants in experimental group of the study. After that, all the items in the questionnaires were analyzed prior to data analysis in order to ensure that no responses were missing, in which case these questionnaires will be excluded from the study.

3.6.2. Piloting of the Wiki Site

It was revealed in the entrance questionnaire conducted with the experimental group that 90% of students are ignorant of web 2.0 tools as a whole and the wiki in particular (see Appendix A). This implies that all the participants were first-time wiki users which made it fundamental that they should understand how this online platform works. As noted by Lee (2009) “it is essential to provide students with sufficient training, so that they become comfortable with new tools” (p.473).

Therefore, the researcher started the piloting by explicitly explaining what web 2.0 technology is and what the wiki tool in particular is. In addition, prior to the experiment, training was also provided on how to appropriately use these tools. The researcher (the creator of the wiki site) brought different screenshots on the computer about the wiki. With the help of these screenshots, the students were instructed how to subscribe to the wiki site, how to publish their paragraphs, how to save them, how to check the teacher's corrective feedback, how to revise their paragraphs, and how to publish them again, how and where to write comments. Once home, the students were requested to subscribe to the wiki page and report any difficulties to the researcher the next session.

After all the students had successfully subscribed to the wiki page, they were asked to start publishing a paragraph there. Publishing was not an easy task to few students on the onset in that they published in the wrong place. For this reason, continuous training was carried out until all students successfully published their paragraphs on the wiki page and mastered all the other functions. The piloting started in November and ended in December until students had adequate control over using the wiki in terms of the various skills such as writing, saving, deleting, sending and receiving feedback, uploading and downloading lectures, pictures and videos. As the questionnaire conducted with the students before the experiment showed that 95% of students are digital natives and computer literate (see Appendix A), it was easy for them to learn about how to use web 2.0 tools.

3.6.3. Piloting of the Interview

The interview questions were pilot tested to evaluate the appropriateness of the questions in order to assure the validity of the interview. The pilot testing was carried out with two second year students in the department of English language and literature at Mohamed lamine debaghine, Setif 2 University. The interview questions were tested against certain measurements. To start with, the clarity and validity of the questions was

assured by making sure the questions were clearly understood by the interviewees, and contain no unclear or ambiguous statements, as well as insuring that they were all relevant and necessary to measure all the concepts. Second, time needed to complete the interview was tested to determine its reasonability.

Accordingly, some questions were omitted as they seemed to overlap with each other, yielding the same answers from the participants while others were modified. Precisely speaking, the interview included 11 questions primarily which were finally constringed to seven questions. As a good case in point, the first question (what do you think of integrating technology into the classroom?) was modified to: (what do you think of web 2.0 integration (in the form of wiki) into the classroom to develop your writing skill?). Also, the second question (what do you feel to using web 2.0 in the writing class?) was omitted as it yielded similar answers in comparison with the first question. In question three (what web 2.0 affordance was mostly helpful?) the adjective “helpful” was substituted for “appreciated”. In the same vein, question four (what did you appreciate the most about web 2.0 technology?) was omitted as it meant exactly the same as question three.

Moreover, questions five (do you think that the wiki has helped you in developing your writing?) and six (do you think that the wiki helped in decreasing some of your writing problems?) were mingled together because of aspect would lead to the other automatically. Thus, question five was the following: to what extent did the wiki contribute to minimize some of your writing problems, and hence develop your writing skill? Finally, question seven (how effective was web 2.0 writing compared to classroom writing?) was modified by adding a phrase, resulting in the following question: How effective was web 2.0 writing using the wiki in developing your skill compared to classroom writing?

Table 3.2

The research questions and their equivalent data collection instruments

Research Question	Data Collection Instrument
RQ1: what are students' writing perceptions and difficulties?	Questionnaire
RQ2: would students who are involved in web 2.0 writing produce better paragraphs than students who are not involved in web 2.0 writing?	Pretest-posttest
RQ3: what are students' perceptions of writing and feedback before and after the involvement in web 2.0 technology?	Questionnaire
RQ4: to what extent did students' writing errors minimize after the involvement in web 2.0 technology?	Corpus analysis
RQ 5: what are students' perceptions' of integrating web 2.0 into classroom learning to develop the writing skill?	Interview and questionnaire

3.7. Data Analysis Methods

3.7.1. Questionnaire Data Analysis Method

The Statistical Package for the Social Sciences (SPSS) software 22.0 version was utilized to analyse the numerical data in this study namely the scores of the tests and the questionnaires yielding both descriptive as well as inferential statistics including: percentages, frequencies, the mean (M), *t*-test, and standard of deviation (SD).

3.7.2. Pretest-Posttest Data Analysis Method

The pre-test and post-test paragraphs of both groups were corrected by the teacher researcher using an adapted scoring rubric from Brown's (2007) and Jacobs et al. (1981) (see Appendix F). Because all the writing teachers in the Department of English Language and Literature at Setif 2 University were occupied with their own Doctorat research, no co-rater was involved in the study. The scoring rubric constitutes five categories videlicet: content, organization, grammar and structure, vocabulary, mechanics. If higher scores are revealed in the post-test, this suggests improvements in the students' writing skill; whereas, static scores indicate no difference or improvements in the students' writing. This can be proven statistically by counting the mean and the *paired t*-test. It is worth mentioning that any improvements in students' writings was assumed to be the result of writing through web 2.0 tools and not classroom writing. That said, both an independent *t*-test to examine the difference between the mean of both groups the experimental and control groups, and a paired *t*-test to examine the difference between the mean in the same group in the pre and post tests were applied.

3.7.3. Corpus Analysis Method

Analyzing students' paragraphs in the pretest, interval period, and the posttest is a valuable source of information about the state of the students' writing ability. Writing development implies a reduction or minimization of writing errors in both form and content. Therefore, undertaking an error analysis of students' paragraphs before the intervention of web 2.0 tool (the wiki) was *sine qua non* to first understand the types of writing errors students make, and second to be able to compare them to paragraphs produced after the intervention. Put in different words, an attempt is made to examine whether students' writing errors minimized after the integration of web 2.0 tool, the wiki. The ultimate objective, then, would be to indicate the development of the students' writing

skill after the involvement in wiki writing. It is noteworthy that the qualitative analysis covered all the five writing aspects which were applied in the quantitative analysis of students' paragraphs, namely content, grammar and structure, organization, vocabulary, and mechanics.

The corpus analysis was accomplished in two ways:

i) Pre-test and post-test paragraph contrast, by counting the percentage of errors produced by the experimental group (n=30) in both tests in the five writing aspects used in this study namely, support, organization, grammar and structure, vocabulary, and mechanics. This aggregated the total number of 60 paragraphs. Identifying, describing, categorizing, and computing errors help in obtaining percentages to indicate the most and the least frequent errors.

ii) Comparing paragraphs produced by nine students in the interval period for error reduction and writing improvement by dividing the whole period into three phases:

1) Phase one: from week 2 to week 6

2) Phase two: from week 7 to week 10

3) Phase three: from week 11 to week 14

3.7.4. Interview Data Analysis Method

Content analysis was carried out to analyse students' interview. The interviews were transcribed verbatim after being listened to carefully. The transcriptions were then read thoroughly, annotating codes to key pieces in the transcripts which revealed important informant with relevance to the research question. According to Strauss and Corbin (2008), relevant coding should be integrated and refined to support responses to research

questions to represent concepts emerging from the data. Next, codes were grouped in order to generate themes where a theme is generated each time the same point or issue is accentuated by participants. Last but not least, the obtained themes were further constricted to six categories which were considered equal in importance, and no hierarchy existed. These categories can be summarized in table 3.4 as follows:

Table 3.4

The interview categories and their descriptions

Categories	Descriptions
The perceived usefulness of web 2.0 integration to develop writing	This category presents students perceptions towards whether it is useful for them to integrate web 2.0 into classroom learning to develop their writing
A positive learning experience with web 2.0 technology	This category explains students' experiences with web 2.0 technology, particularly the wiki, describing possibly some events or incidents.
Affordances of wiki as a writing tool	This category describes the different assets that can be offered by the wiki as a writing tool from the students' standpoint
Perceived contribution of wiki to develop writing	This category highlights students' views of how wiki has helped to develop their writing.
The ability of wiki to develop the different aspects of writing	This category describes students' opinions towards which writing aspects the wiki has developed.
Reasons to appreciate wiki writing over classroom writing	This category explains the assets students attributed to wiki writing which made them choose it over classroom writing

3.8. The Research Experiment

The objectives of the participation along with the relevance to the course objectives were clearly explained to students in the experimental group. Unlike the control group, however, the experimental group received a blended writing instruction in class and online. They were assigned a treatment in which they had to use web 2.0 technologies in the form of wiki to practice writing, receive teacher feedback, revise their drafts and then edit them.

As beforehand mentioned, the major web 2.0 tool incorporated in the writing course was the wiki as it is an important writing tool which provides web editing whereby content is created quickly, modified, deleted, or changed; wikis possess a discussion page which enables learners to comment on each others' works; wikis have a history function, also called a log, which enables learners to track their activities (Spector, Ifenthaler, Sampson, & Isaias, 2016). The wiki page used in the current study was created by the researcher through the wiki website **wikispaces.com** for its cost-effectiveness, flexibility, and ease of use, with the following address: <http://writeitperfectly.wikispaces.com>.

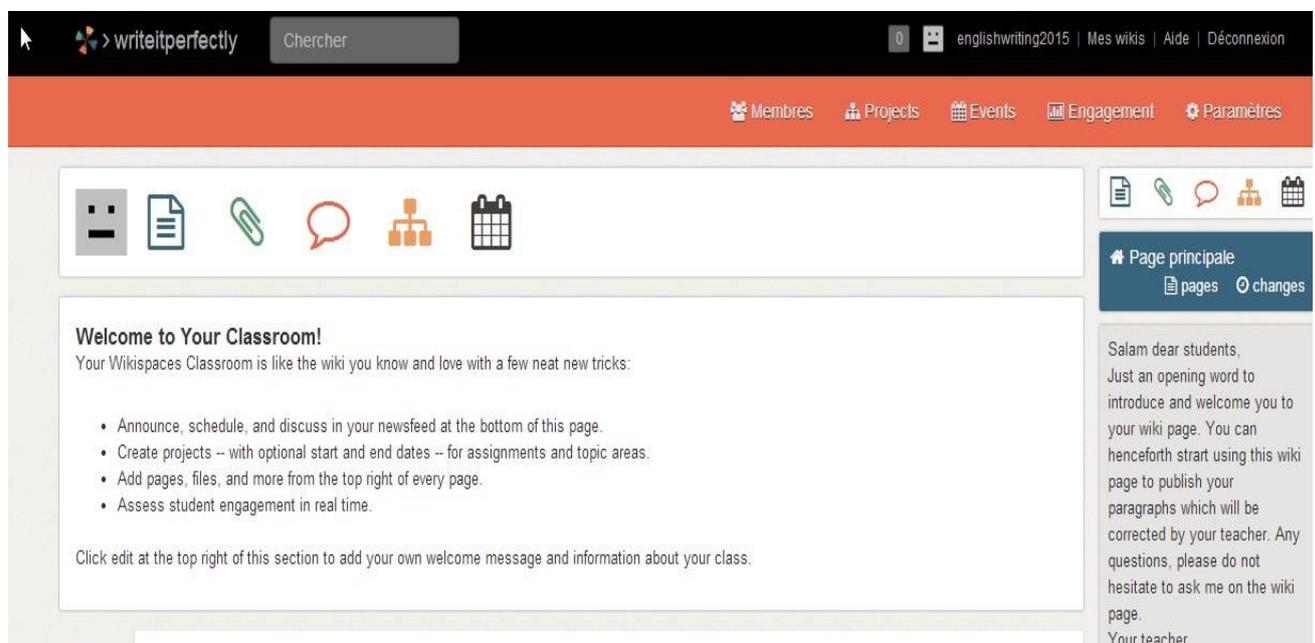


Figure 3.3. A screenshot of the wiki site used in this study.

The students were sent invitation emails by the wiki organizer (the researcher in this case). When students open the email, they can directly access the wiki link and be members. More importantly, the wiki site can only be accessed by the teacher and the students of the experimental group as it is a private one. Below is a figure illustrating sending invitation to students to their emails to join the wiki site.

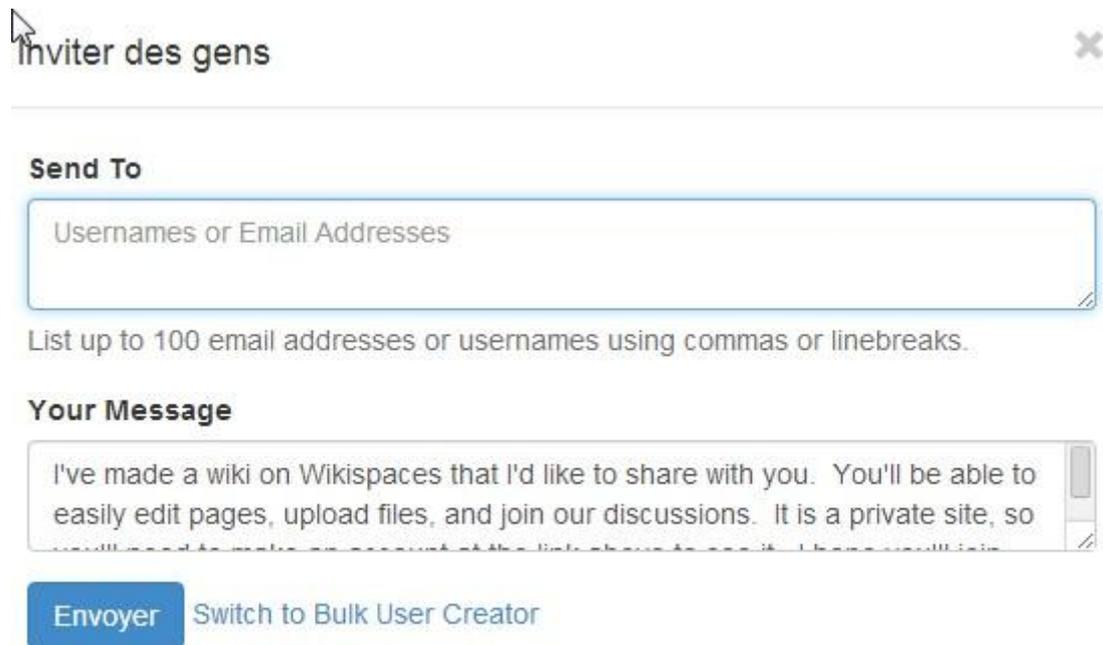


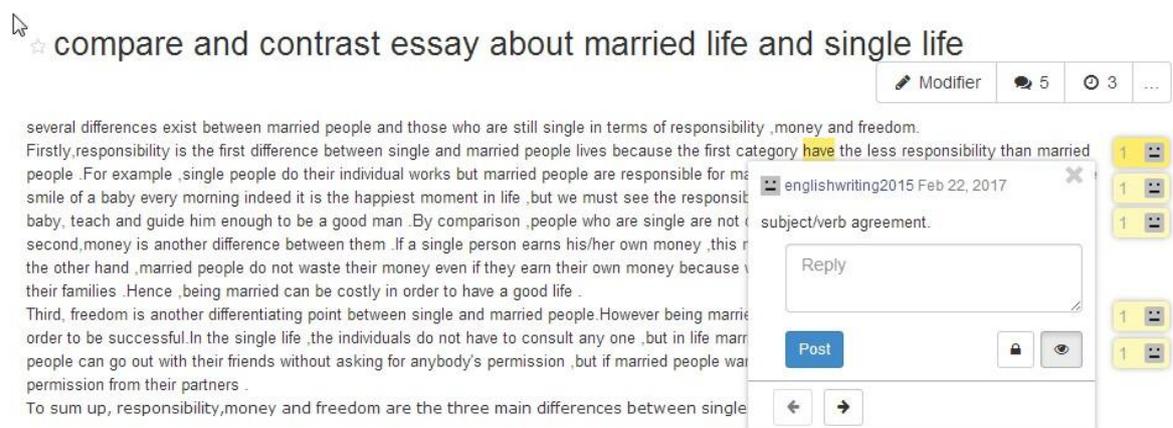
Figure 3.4. A sample of a wiki invitation to Students

Though flexible as a tool in terms of timing, wiki's flexibility is restricted by giving deadlines for completion of the task which accords with the lecture and workshop. In order to accomplish the mission successfully, the researcher preset a fixed time frame about the deadline to publish the paragraph on the wiki page, the deadline for the teacher to evaluate the paragraphs and provide feedback, and the deadline to revise the paragraphs and publish them once again (see Table 3.5). According to Stephenson (2002), it is very important to manage your class online as you do on a traditional class by giving your students deadlines.

Students are instructed to write one paragraph on a particular topic weekly to be published on the wiki page. The paragraph topics (see Appendix E) were free choice at times, where students can choose the topic of their interest, and assigned by the teacher researcher at other times. In the second case, the objective is to teach students to write about topics they have not selected which has the potential of getting them used to writing about any topic as it is the case of the written expression exam, for example. The type of paragraphs and

patterns of organization, nonetheless, were all assigned by the teacher because they are imposed by the syllabus.

Accordingly, after being lectured in class about paragraph writing, students in the experimental group started prewriting in class, where they had to plan and outline to generate maximum ideas about the assigned topic. Also, they had to roughly write the first draft of the paragraph. Once home, students are given two days to publish their first draft of the paragraph on the wiki page starting from the day they pre-wrote in class to be evaluated by the teacher by providing corrective feedback. Students are instructed to write based on what they have learnt about paragraph writing in their assignments using the web 2.0 tools. Once all the paragraphs are published, the teacher provides corrective feedback to all the paragraphs within a period of three days. The teacher's feedback ranges between indirect, direct, to metalinguistic. Indirect feedback was provided in the early weeks but students failed to revise their paragraphs after they received indirect feedback because they were incapable of indentifying the error. After that, the teacher's feedback was direct and metalinguistic, resulting in students' revision of their paragraphs, in this case. Following are examples of the teacher's feedback strategies used to correct students' paragraphs on the wiki:



The screenshot shows a wiki page with the title "compare and contrast essay about married life and single life". The page content discusses differences between married and single life in terms of responsibility, money, and freedom. A comment box is open, showing a reply from "englishwriting2015" dated Feb 22, 2017, with the text "subject/verb agreement." and a "Post" button. The page also shows a "Modifier" button, a comment count of 5, and a view count of 3.

Figure 3.5. A screenshot of the teacher's direct corrective feedback to a student's paragraph in the wiki

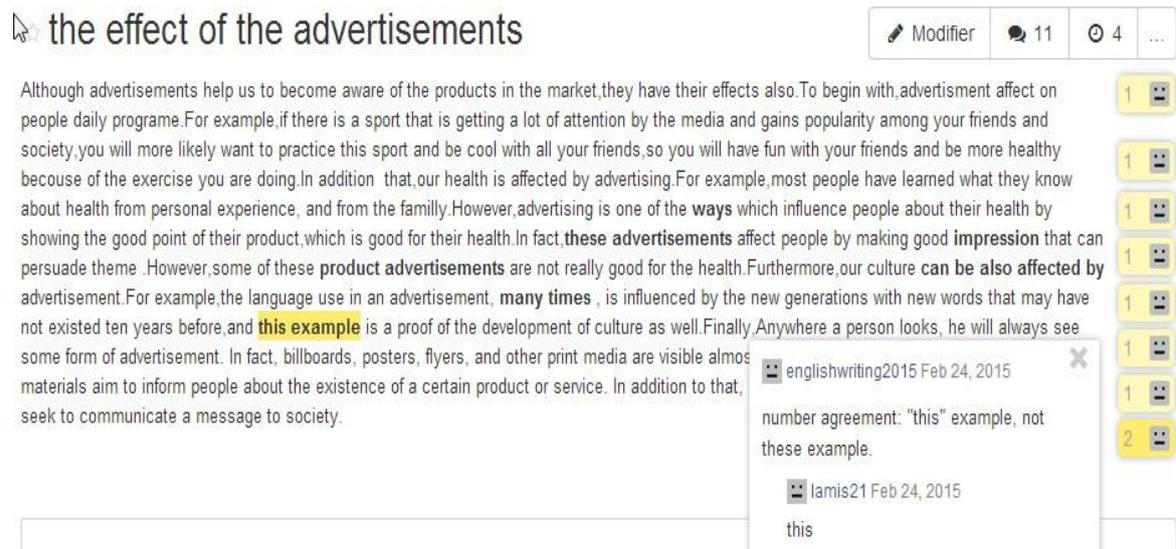


Figure 3.6. A screenshot of the teacher's metalinguistic corrective feedback to a student's paragraph in the wiki

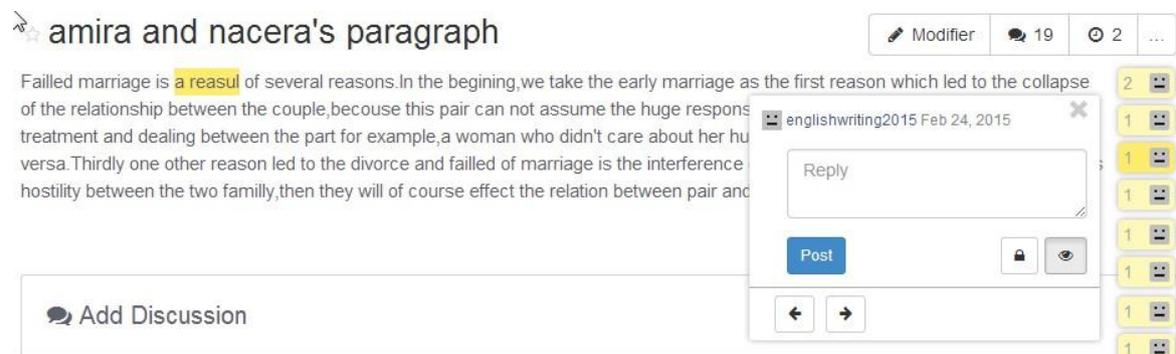


Figure 3.7. A screenshot of a teacher's indirect corrective feedback to a student's paragraph in the wiki

After that, students had two days to revise their paragraphs and make the required changes after feedback is provided, before they can write the second draft. The second draft is also published on the wiki page for the teacher to check students' revisions and to what extent students have corrected their errors as highlighted by the teacher. Following is a

screenshot of how students' and teacher can modify a paragraph with the number of highlighted corrections, and the number of revisions made, respectively. If students made the required changes, the final draft of their paragraphs is written.



Figure 3.8. A screenshot of paragraph modification, corrections, and revisions on the wiki

It is noteworthy that the CF provided by the teacher equally targeted form (grammar and structure, vocabulary, and mechanics) and content (support and organisation) of paragraph writing with no importance attributed to one over the other. In addition, students were divided into small groups of 4 students when the task requires collaborative writing. It is worthy to mention that students' further discussions about the feedback provided or extra explanations about the lecture were done on the wiki page.

It is important to mention that the study focus was to include both teacher and peer feedback. However, the study was based on the teacher's corrective feedback solely while peer feedback was excluded from the study because students did not trust each others' feedback, thinking that their peers are not proficient enough to be able to correct their paragraphs. Evidently, merely the teacher was trusted to do the correction task because he is seen as the most proficient and also the authority figure. Below is an example of a peer feedback provided to a student's paragraph but no revisions were taken into account by the student writer.

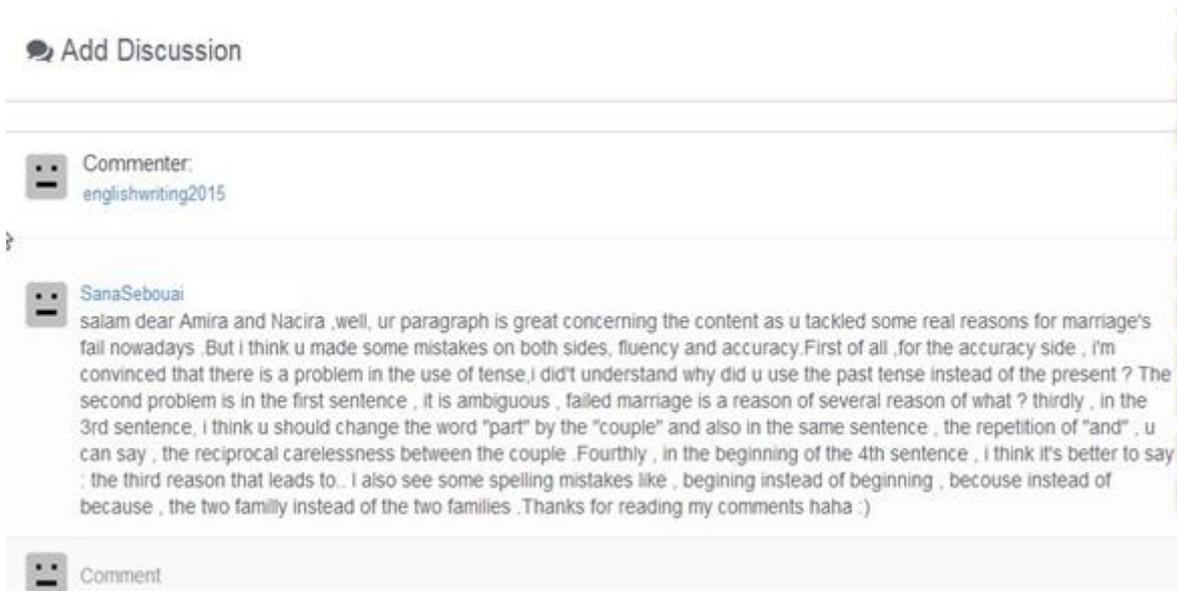


Figure 3.9. A screenshot of peer feedback to a student’s paragraph in the wiki

The table below is a visual presentation of the web 2.0 implementation schedule:

Table 3.5

The time frame of the wiki paragraph writing

Writing requirement	The time required
Students write the first draft on the wiki page	Two days
The teacher corrects the paragraphs and send them to students	Three days
Students revise their paragraphs after receiving feedback, and submit them again to be checked then published again	Two day

The quasi-experiment lasted for 13 weeks (from week 2 to week 14) from mid December to the first week of May taking the winter and spring holidays, and the first-semester exams into account. The online and classroom writing activities could be summarized and described as follows:

3.8.1. Paragraph Writing Instruction

Both groups received classroom instruction about paragraph writing which lasted for four successive weeks prior to the experiment in which the parts of a paragraph were shown, namely the topic sentence, the supporting sentences, and the concluding sentence along with the structure of the paragraph. In addition, the stages of the writing process, including planning, prewriting, drafting, revising, and editing, were given. Moreover, rhetorical features related to writing, including coherence, cohesion, and unity, were also taught.

3.8.2. Week 1: The Pretest

In the first week of the experiment which took place in the Department of English language and literature at the University of Setif 2, during the academic year 2014/2015, the pretests for both groups (the TL and CL) were executed in a classroom during the one hour and a half Written Expression session. The students were requested to write a paragraph using the following prompt: *“Education is crucial to individuals in that it provides them with greater jobs opportunities.”* The type of paragraph was not assigned as students have not dealt with the types yet unlike the rhetorical pattern which was explained in the lecture of coherence. While in the remaining half an hour they have answered the questionnaire examining their writing difficulties and technology knowledge and perceptions.

It is noteworthy that students in both groups were assigned similar prompts in class; however, while students in the control group execute all the stages of the writing process in class, students in the experimental group started brainstorming to generate ideas, outlining, and roughly drafting the first draft. Put otherwise, drafting, revising, and editing were altogether effectuated on the wiki page.

3.8.3. Week 2 to Week 14: The Interval Period

The second year written expression syllabus deals with teaching students to write an effective paragraph relying on specific paragraphs types. The latter include as major types: the process paragraph and the comparison and contrast paragraph, the cause and effect paragraph, the problem-solution paragraph, and the argumentative or persuasive paragraph. Each type took two or three weeks to make sure the students have clearly understood the type and its rhetorical pattern. The argumentative type was the predominant in terms of practice as in academic writing it is important for student writers to develop strong arguments to show how they think critically. This can, hence, boost their critical thinking as students focus on evidence and clear logical reasoning.

Weeks 2 and 3: The students were asked to write process paragraphs as follows: write a paragraph in which you explain the process of doing something.

Weeks 4 and 5: The students were asked to write a comparison and contrast type as follows: Write a comparison paragraph where you compare two things, objects, or people

Weeks 6, 7, and 8: The students were asked to write cause/ effect paragraph guided by the following prompts respectively

- Discuss the effects of parents' pressure on children to obtain good grades/marks.
- Marriages fail due to different reasons. Discuss.
- The causes or the consequences of: child labor,

Weeks 9 and 10: The students were asked to write a problem/solution paragraph as follows: Think about a social, economic, environmental, and educational problem, or otherwise, and try to provide a solution (s) to it.

Week 11, 12, 13, and 14: The students were asked to write argumentative paragraphs on the following prompts respectively, by giving their own arguments.

- Is watching TV advantageous or disadvantageous? Or what do you think of reading books for leisure?
- What do you think are the qualities of a good friend?
- What do you think are the qualities of a good teacher?
- Visiting an English speaking country to learners of English is very beneficial; strategies that can help learners of English improve their English, or the benefits of studying a foreign language (English) is very beneficial.

3.8.4. Week 15: The Posttest

In week 15, after the experiment was completed, students were asked to write an argumentative paragraph, which was the most appreciated by students, using the following prompt: *people choose to study English in university, among a variety of educational fields.*

Conclusion

This chapter has described the research design and research methods governing this study. It also dealt with the research setting, the sample and sampling procedure, and the research procedure. Based on a quasi-experimental design, the study followed a mixed-method approach where an amalgam of instruments was used to collect data. These tools have yielded useful data, and have contributed to a thorough understanding of the research topic. The next chapter will present the analysis of data, including the students' paragraphs



scores, the analysis of their corpus of paragraphs, and their answers to the questionnaire and the interview.

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CHAPTER FOUR

FINDINGS AND DISCUSSIONS

Introduction

The purpose of this study was to investigate whether integrating and using web 2.0 technologies could improve the students' writing skill. This chapter undertakes the task of presenting the findings, results, and analysis of these data. The results of this study are presented in this chapter by analyzing the data obtained through the four data collection instruments, namely students' corpus (paragraphs produced in the wiki), the three questionnaires, the pre-post writing tests, and the interview. The data collected consist of the pre-post test scores allocated to the paragraphs produced by students, the responses of students to the questionnaires, the responses of student to the interview, and the students' corpus of paragraphs.

The data is organized based on the research questions that were specified in chapter one. Simultaneously, hypotheses were tested to be confirmed or rejected. To start with, data obtained from the entrance questionnaire were used to answer research question 1. The pre-post test scores of the students in the control group and the experimental group were used to answer research question 2, the data obtained from the questionnaire were used to answer research questions 3 and 5 and while data secured from the students' interviews was used to answer research question 5. As for research question 4 an analysis of the students' corpus of paragraphs was used to answer it.

4.1. Results

4.1.1. Ensuring Equivalence between the Control Group and the Experimental Group in the Pretest

It was compulsory to initially show that the experimental group and the control group were similar and comparable prior to receiving any treatment in terms of the writing performance. Put otherwise, this step aims at ensuring that the threshold from which both groups started was the same as both groups received the same instruction. As such, a proper and veracious comparison can be drawn between the two groups, allowing for a thorough understanding of the procured results. Accordingly, any improvements in the experimental groups' writing will be accredited to the treatment they received solely.

The comparison of the pretest scores of students' paragraph writing is drawn on the basis of 35 student in the control group and 30 in the experimental group. As beforehand mentioned, the paragraphs produced by both groups were corrected using the same scoring rubric which consists of the five writing features: content, organization, grammar and structure, vocabulary, and mechanics. Each feature is scored between 1 and 4 over 4 depending on the performance, obtaining a total score of 20 for the whole paragraph (see Appendix F). As can be shown in table 4.1, the mean of the total score in the experimental group was $\bar{x}=9.03$ while its analogous mean in the control group was $\bar{x}=9.10$. An independent sample t-test in the pre-test has yielded $t=0.174$, and $\alpha < 0.50$. As the P value is greater than $\alpha = 0.05$, it suggests that no significant difference exists between the experimental and the control groups.

Table 4.1

Overall pretest scores of students' paragraphs in the control group and the experimental group.

	N	Mean	SD	t-test	P value
Pre-test experimental (CL) group	30	9.03	1.51	0.174	0.50
Pre-test control (TL) group	35	9.10	1.44		

4.1.2. Participants' Demographic Information

This study was conducted in the department of English language and literature, Setif 2 University during the academic year 2014/2015. It was conducted with 65 students, 35 in the control group and 30 in the experimental group, and run for 15 weeks. As a part of completing a questionnaire to stimulate students' perceptions, this study started with a background and demographic information section soliciting the participants to specify their age, gender, and total years of studying English as shown in tables 4.2.

Table 4.2

Participants' demographic information statistics

Variables	Category	N	%	Mean	SD
Age	18-21	21	70	1.30	0.46
	21-25	09	30		
Gender	Male	09	30	1.70	0.46
	Female	21	70		
Total years of studying English	More than 7 years	30	100	3.00	.000

4.1.3. Participants' Computer Literacy Skills Information

For a successful implementation of the experiment which is technology based, it is a prerequisite to know about students computer skills and technology experience. Students were asked about computer possession, internet use, home internet availability, overall period of using the internet, and the frequency of using the internet. With regards to their web 2.0 experience, students were asked about their acquaintance with web 2.0 and the wiki as well as their prior experience with the wiki. The tables below present the results.

Table 4.3

Students' computer possession

	Frequency	Percentage %	Mean	SD
Yes	30	100	1.00	.000
No	0	0		

All participants (N=30) possessed a computer, with a mean score of $\bar{x} = 1.00$ and $SD = .000$. Having computers home is fundamental for the implementation of this study's experiment especially that its implementation in the university's lab was impracticable.

Table 4.4

Students' internet use

	Frequency	Percentage%	Mean	SD
Yes	30	100	1.00	0.00
No	0	0		

As can be read from table 4.4, all students used the internet, with a mean of $\bar{x} = 1.00$ and $SD = .000$. This is likely due to being digital natives. Being all students are users of the internet implies that the participants know how to manipulate the world wide web which in turn assists in the experiment of the experiment.

Table 4.5

Students' availability of domestic internet

	Frequency	Percentage%	Mean	SD
Yes	29	96.7	1.06	0.36
No	1	3.3		

All but one participant (96.7 %), had the internet home, with a mean of $\bar{x}=1.06$, and $SD= 1.36$. this participant with no internet home was living on campus, and thus she worked on the wiki page from the campus's cyber net all along the experiment.

Table 4.6

Students' total number of years of using the internet

	Frequency	Percentage%	Mean	SD
1-3 years	8	26.7		
3-5 years	2	6.7	2.26	1.11
5-8 years	13	43.3		
More than 8	7	23.3		

As can be shown in the table 4.6, almost half of the participants (43.3%) used the internet for 5 to 8 years. The mean score of the participants' amount of time for which they had been using the internet was $\bar{x} = 2.26$ ($SD = 1.11$). This suggests that the internet is something students are accustomed to, which in turn facilitated their work with web 2.0 in the experiment.

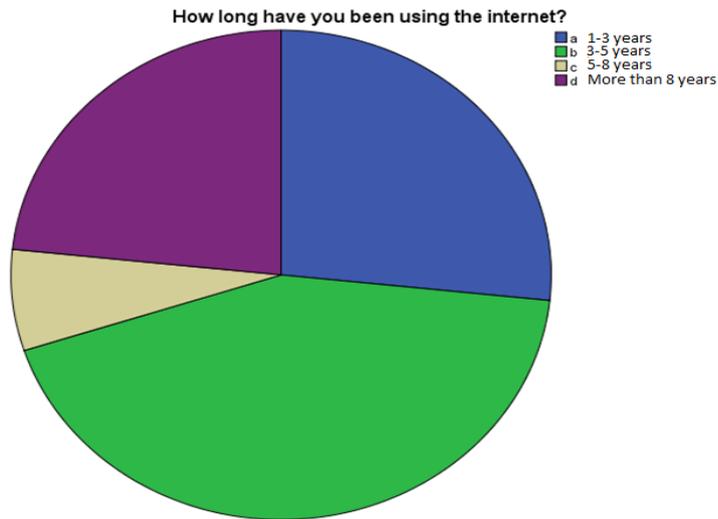


Figure 4.1. Students' total number of years of using the internet

Table 4.7

Students' internet use frequency

	Frequency	Percentage%	Mean	SD
Every day	15	50		
Several times a week	7	23.3		
Once a week	6	20.3	1.86	1.07
Once/twice a month	1	3.3		
Less than once a month	1	3.3		

The mean score of the participants' frequency of using the internet was $\bar{x} = 1.86$ ($SD = 1.07$). On that account, half of the participants (50%) reported using the internet on a daily basis while it was used several times a week by 7 participants (23.3%) and one a week by 6 participants (20.3%). These results serve the study as the experiment requires the participants to be frequent users of the internet because if otherwise, the participants will find it arduous to respect the schedule of the experiment.

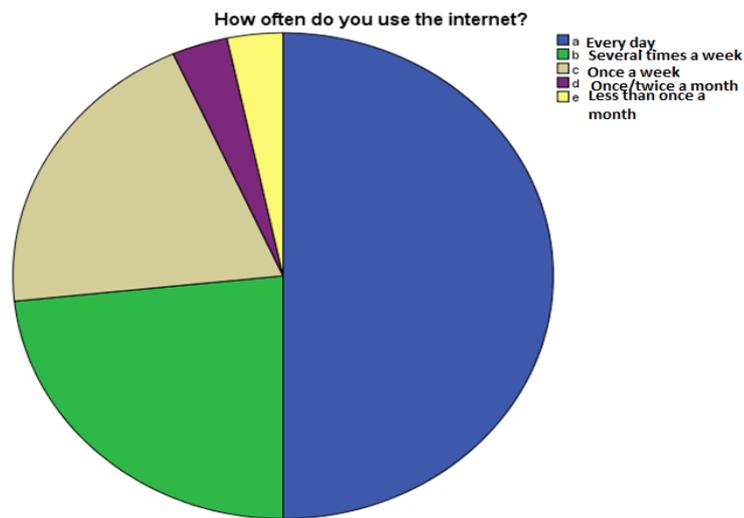


Figure 4.2. Students' internet use frequency

Table 4.8

Students' computer literacy level

	Frequency	Percentage%	Mean	SD
Week	8	26.7		
Good	16	53.3	2.00	0.83
Very good	4	13.3		
Excellent	2	6.7		

The mean score of the participants' computer literacy experience was $\bar{x}=2.00$ ($SD = 0.83$) indicating that, on average, the participants believed that their technology experiences were at least good (35.3%).

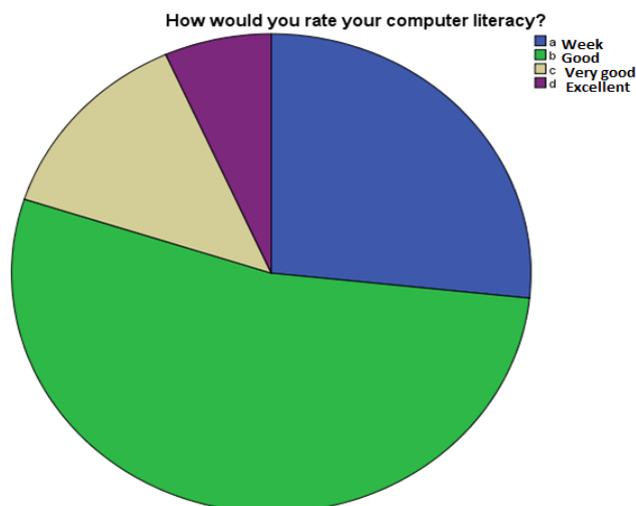


Figure 4.3. Students' computer literacy level

Table 4.9

Students' prior knowledge of web 2.0 technology

	Frequency	Percentage	Mean	SD
Yes	5	16.7	0.16	0.37
No	25	83.3		

The participants were asked whether or not they knew web 2.0 technologies. With a mean $\bar{x} = 0.16$ (SD= 0.37), the majority of students (83.3%) had no conception of the web 2.0 technology. About 16.7% declared knowing web 2.0 technologies, which is probably due to using them before.

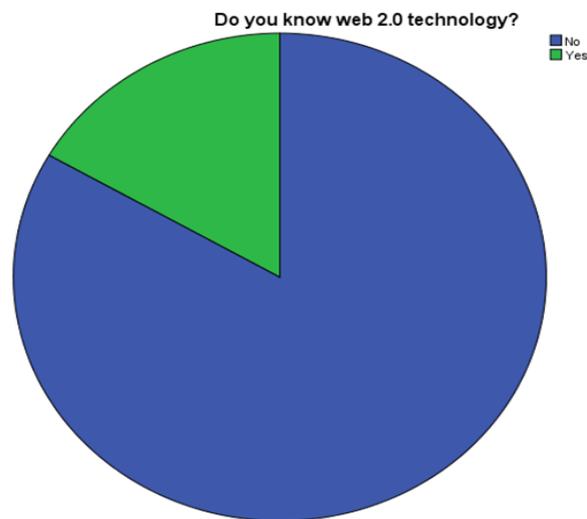


Figure 4.4. Students' prior knowledge of web 2.0 technology

Table 4.10

Students' prior knowledge of the wiki

	Frequency	Percentage	Mean	SD
Yes	6	20.0	2.00	0.40
No	24	80.0		

Students were asked whether or not they knew the wiki. The mean was $\bar{x} = 2.00$ (SD= 0.40). A considerable number of students (80.0%) declared not knowing did not know the wiki before this time.

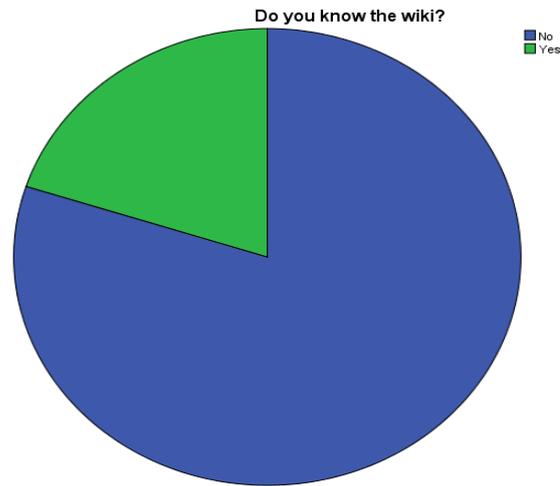


Figure 4.5. Students' prior knowledge of the wiki

Table 4.11

Students' use of the wiki prior to the experiment

	Frequency	Percentage	Mean	SD
Yes	1	3.3	0.03	0.18
No	29	96.7		

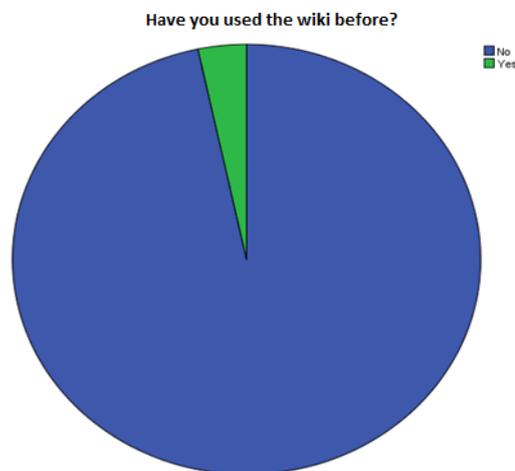


Figure 4.6. Students' use of the wiki prior to the experiment

As for students' use of the wiki prior to the experiment, all students except one had not used it before (96.7%) with a mean of $\bar{x} = 0.03$ and $SD = 0.58$. On this basis, training is needed to introduce the participants to the wiki and its mechanisms.

4.1.4. The entrance Questionnaire Results to answer Research Question

Research question 1: What are Students' Writing Perceptions and Difficulties?

Participants' Perceptions about Writing and Their Writing Difficulties

To begin with, the majority of participants (63.3%) considered writing as the most important skill among the other skills namely reading, listening and speaking, with a mean of $\bar{x} = 2.56$ and $SD = 0.93$.

Table 4.12

Participants' perceptions of the most important skill

	Frequency	Percentage%	Mean	SD
Reading	1	3.3		
Writing	19	63.3		
Listening	2	6.7	2.56	0.93
Speaking	8	26.7		

Also, 90% of students regarded writing as the most difficult skill compared to the other skills indicating a mean of $\bar{x} = 2.16$, $SD = 0.53$.

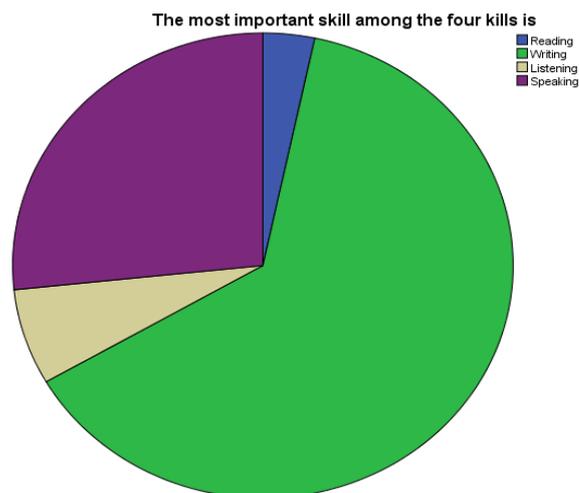


Figure. 4.7. Participants' perceptions of the most important skill

Table 4.13

Students' perceptions of the most difficult skill

	Frequency	Percentage %	Mean	SD
Reading	0	0		
Writing	27	90.0	2.16	0.53
Listening	1	3.3		
Speaking	2	6.7		

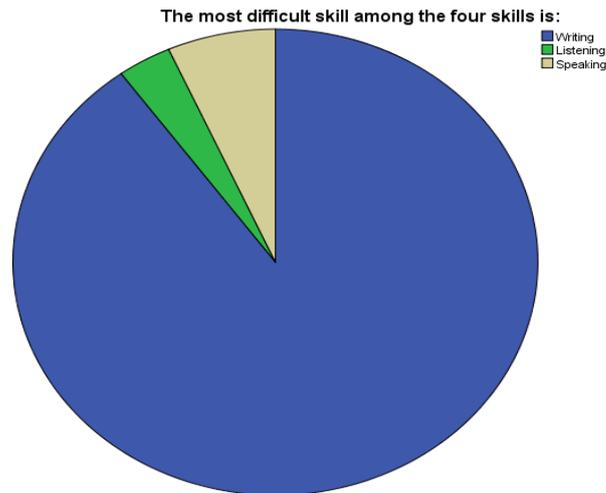


Figure 4.8. Students' perceptions of the most difficult skill

In the same vein, all students 100% declared that they did not write in English because writing is difficult giving a mean score of $\bar{x} = 1.00$ and $SD = .000$.

Table 4.14

Students' inability to write because writing is difficult

	Frequency	Percentage %	Mean	SD
Yes	30	100	1.00	.000
No	0	0		

All students reported lacking confidence to write because their English is not very good giving a mean of $\bar{x} = 1.00$ and $SD = .000$.

Table 4.15

Students' lack of confidence to write because their English is not very good

	Frequency	Percentage %	Mean	SD
Yes	30	100	1.00	.000
No	0	0		

In a general statement about the writing difficulties, all students 100% reported that they did not write in English because they lacked the necessary skills, for which the mean score was $\bar{x} = 1.00$ and $SD = .000$.

Table 4.16

Students' inability to write because of lacking the necessary skills

	Frequency	Percentage%	Mean	SD
Yes	24	80.0	2.00	0.40
No	6	20.0		

To elaborate on the previous statement, students were asked to specify their writing difficulty area by choosing among five writing difficulties which impeded them from writing well. The results, although being close, revealed that being unable to generate ideas, and having a limited vocabulary, and lacking grammar knowledge stood as the most prevalent writing difficulties, indicating a mean score of $\bar{x} = 2.66$ and $SD = 1.34$.

Table 4.17

Students' inability to write as a result of lacking certain writing features

	Frequency	Percentage%	Mean	SD
I cannot generate ideas	7	23.3		
I cannot organise ideas	4	13.3		
I have limited vocabulary	7	23.3	2.66	1.34
I have limited grammar knowledge	8	26.7		
I have problems in mechanics	4	13.3		

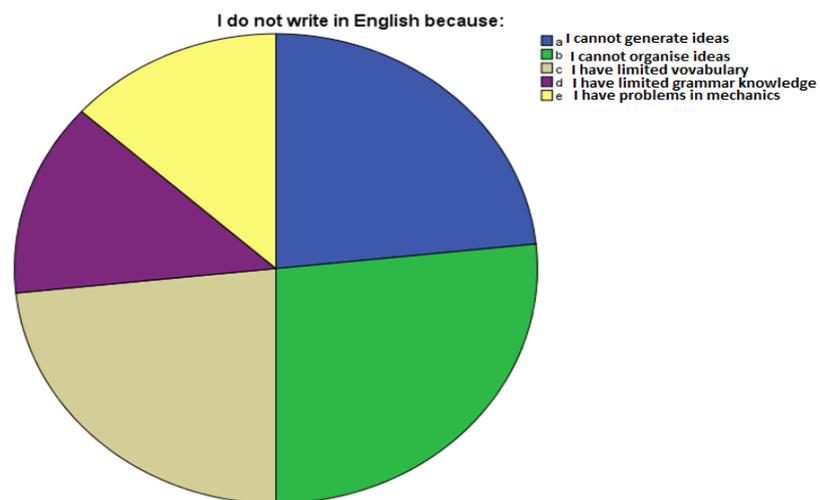


Figure 4.9. Students' inability to write as a result of lacking certain writing features

In addition, students were asked to designate which in the dichotomy of writing features is more important, form or content; the majority of students thought that it is form which is more important (63.3%) with a mean of $\bar{x} = 1.63$, $SD = 0.49$. This indicates that students are likely to pay more attention to form rather than content in their writing.

Table 4.18

Students' perceptions of the most important aspect about writing

	Frequency	Percentage%	Mean	SD
Form	19	63.3	1.63	0.49
Content	11	36.7		

Students asserted that external factors, not related to the writing skill per se, might have been writing obstacles preventing students from writing well. As a good case in point, all students 100%, mean $\bar{x} = 1.00$, SD= .000 affirmed that they did not practice well because of classroom time constraints.

Table 4.19

Time constraints as a barrier to adequate writing

	Frequency	Percentage%	Mean	SD
Yes	30	100	1.00	.000
No	0	0		

All students 100% answered “yes” to the statement “*overcrowded classes prevent me from benefiting from the teacher’s feedback*” with a mean score of $\bar{x} = 1.00$ and SD= .000. This is probably true because correcting a whole class in a single writing session is an arduous task.

Table 4.20

Overcrowded classes as a problem preventing students from teacher’s feedback

	Frequency	Percentage %	Mean	SD
Yes	30	100	1.00	.000
No	0	0		

Furthermore, all students 100% mean $\bar{x} = 1.00$, SD= .000, proclaimed that they did not receive adequate feedback on their writing because of time constraints.

Table 4.21

Time constraints as a problem preventing students from teacher's feedback

	Frequency	Percentage %	Mean	SD
Yes	30	100	1.00	.000
No	0	0		

It is important to understanding students' writing difficulties to be able to deal with them in the future and to help them to overcome them.

4.1.5. The Quasi-Experimental Study Results

Research Question 2: Would Students who are Involved in Web 2.0 Writing Produce better Paragraphs than Students who are not Involved in Web 2.0 Writing?

This research question is driven by a set of hypotheses. The aim of the pre-test and post-test is to measure the students' writing performance before and after the integration of web 2.0 tool, the wiki. A two-tailed hypothesis is used because this study uses a significance level of $p \alpha = 0.05$. Therefore, a comparison is drawn between the two groups test scores to indicate whether students writing skill in the experimental group improved.

To draw this comparison, and given the quasi-experimental design of the study, the researcher made use of certain statistical measures which are compatible with this particular design. For this end, inferential statistics with the help of the SPSS were used, permitting for an accurate analysis and comparison of the scores. The inferential statistics needed in this study are: the mean M , (\bar{x}), the standard of deviation (SD), the mode, the median, the parametric test, the t-test, and the p value (α). The p value (α) in social sciences is set at 0.05 which proves that there is 95% probability that the differences between the two groups or within the same group before and after the intervention did not occur by chance.

4.1.5.1. Hypothesis 1

Hypothesis 1: There will be significant differences in the paragraph writing of students in the experimental group before and after the integration of web 2.0 technology.

Null Hypothesis 1: There will be no significant differences in the paragraph writing of students in the experimental group before and after the integration of web 2.0 technology.

4.1.5.1.1. Paired Samples *t*-test Experimental Group Results.

This section presents the results of the EG before and after the quasi-experiment. The scores for the EG were collected before and after the quasi-experiment. The scores were then compared to be able to deduce any significant development in the EG participants' writing skill as a result of integrating web 2.0, wiki. Hypothesis 1 was tested using the paired samples *t*-test which shows the difference between two means for each variable.

The results in table 4.22 indicate a significant difference between the pre and the post test scores in the experimental group. While the mean of the total score obtained by each participant in the experimental group in the pre test was $\bar{x} = 9.03$ and the SD was 1.51, the mean of the total score in the post test was $\bar{x} = 13.13$ and the SD was 2.30. Hence, the mean difference obtained at the pretest and posttest phases was $\bar{x} = 4.10$. The significance of this mean difference score was statistically inferred using the paired samples *t*-test. The *t* value = 12.05 was significant at $\alpha = .000$ which is lower than $p < 0.05$. Thus, it provides evidence that there is a significant development in the writing skill of EG participants after the involvement in web 2.0 writing. Accordingly, alternative hypothesis 1 was confirmed and null hypothesis 1 was rejected.

Table 4.22

Pre-test and post-test scores of the experimental group.

	N	Mean	SD	Mean Difference	t	Sig.(2tailed)
Pre-test. Experimental group	30	9.03	1.51			
Post-test. Experimental group	30	13.13	2.30	4.10	12.05	.000

Apropos to this, the results affirmed the stated hypothesis that there will be a significant difference in paragraph writing of students in the experimental EG group before and after the integration of web 2.0 writing. This hypothesis testing was backed up by separately testing the paired samples t-test of the five writing aspects videlicet: content, organization, grammar and structure, vocabulary, and mechanics and format (see Appendix F). Likewise, the paired t-test was applied as these five writing aspects were measured twice, before and after the involvement in web 2.0 writing.

4.1.5.1.2. Paired Samples t-test Experimental Group Results in Content, Organization, Grammar, Vocabulary, and Mechanics.

a. Content

As shown in table 4.23, the mean attained for the aspect of content for students in the experimental group was $\bar{x} = 1.86$ in the pretest and $\bar{x} = 2.36$ in the post test, resulting in a mean difference of $\bar{x} = 0.50$. The significance of this mean difference was statistically inferred using the paired samples t-test. The t- value = 4.34 was significant at $\alpha = .000$ which is lower than ($p < 0.05$). This suggests an improvement in students' writing in terms of content.

Table 4.23

Pre-test and post-test content scores of the experimental group.

	N	Mean	SD	Mean Difference	T	P
Content Pre-test	30	1.86	0.43			
				0.50	4.34	.000
Content Post-test	30	2.36	0.55			

b. Organisation

Table 4.24 shows that the mean attained for the organization feature for students in the experimental group was $\bar{x}=1.96$ in the pretest while it was $\bar{x}=2.70$ in the post test, indicating in a mean difference of $\bar{x}=0.80$. This was significant as confirmed by t-test= 6.13 which was significant since $\alpha = .000$ which is lower than ($p < 0.05$). Emphatically, the results imply an improvement in students' writing as far as organization is concerned.

Table 4.24

Pre-test and post-test organization scores of the experimental group.

	N	Mean	SD	Mean Difference	T	P
Organization pre-test	30	1.96	0.48			
				0.80	6.13	.000
Organization post-test	30	2.70	0.65			

c. Grammar

As revealed in table 4.25, the mean obtained for the feature of grammar for students in the experimental group was $\bar{x}=1.70$ in the pretest and $\bar{x}=2.83$ in the post test, with a mean difference of $\bar{x}=1.13$, indicating a significant difference as the t-test= 9.87, p value $\alpha =$

.000 which is lower than (< 0.05) suggesting an improvement in students' writing in grammar

Table 4.25

Pre-test and post-test grammar scores of the experimental group.

	N	Mean	SD	Mean Difference	T	P
Grammar Pre-test.	30	1.70	0.46			
Grammar Post-test.	30	2.83	0.69	1.13	9.87	.000

d. Vocabulary

As can be read in table 4.26, the mean secured for the aspect of vocabulary for students in the experimental group was $\bar{x} = 1.86$ in the pretest and $\bar{x} = 2.46$ in the post test, resulting in a mean difference of $\bar{x} = 0.60$ which was a significant difference since $t\text{-test} = 6.59$, p value $\alpha = .000$ which is lower than ($p < 0.05$). Thus, students' writing vocabulary has improved after the involvement in web 2.0 writing.

Table 4.26

Pre-test and post-test vocabulary scores of the experimental group.

	N	Mean	SD	Mean Difference	T	P
Vocabulary Pre-test.	30	1.86	0.43			
Vocabulary Post-test.	30	2.46	0.50	0.60	6.59	.000

e. Mechanics

Table 4.27 demonstrates that the mean attained for the aspect of mechanics for students in the experimental group was $\bar{x} = 1.63$ in the pretest and $\bar{x} = 2.80$ in the post test, resulting in a mean gain of $\bar{x} = 1.16$, which is a significant difference where $t\text{-test} = 12.04$, p value $\alpha = .000$ which is lower than ($p < 0.05$). Therefore, it suggests an improvement in students' writing in terms of grammar.

Table 4.27

Pre-test and post-test mechanics scores of the experimental group.

	N	Mean	SD	Mean Difference	T	P
Pre-test. Experimental group	30	1.63	0.49			
Post-test. Experimental group	30	2.80	0.48	1.16	12.04	.000

4.1.5.2. Hypothesis 2

2. **Hypothesis 2:** There will a significant difference in the control group's paragraph writing between the pretest and the posttest.

2. **Null Hypothesis 2:** There will no significant difference in the control group's paragraph writing between the pretest and the posttest.

4.1.5.2.1. Paired Samples *t*-test Control Group Results.

Similar to the first hypothesis, this hypothesis was tested using a *paired t-test* as the control group was tested twice, resulting in two scores, the pretest scores and the post test scores.

As indicated in table 4.28, the total mean score for students in the control group was $\bar{x} = 9.22$ in the pretest and $\bar{x} = 8.62$ in the post test, giving a mean difference of $\bar{x} = 0.60$. However, this mean score was not significant as the t -test = 2.91 which was not significant since p value $\alpha = 0.06$ which is greater than (< 0.05). This indicates that no improvements were noticed in students' writing in the control group. Apropos to this, alternative hypothesis 2 was disconfirmed and null hypothesis 2 was accepted.

Table 4.28

Pre-test and post-test scores of the control group.

	N	Mean	SD	Mean Difference	T	P
Pre-test. control group	35	9.22	1.51			
Post-test. control group	35	8.62	1.41	-0.60	2.91	0.06

4.1.5.2.2. Paired Sample t-test Control Group Results in Content, Organization, Grammar, Vocabulary, and Mechanics.

a. Content

Table 4.29 shows that the mean obtained for the feature of content for students in the control group was $\bar{x} = 1.91$ in the pretest and $\bar{x} = 1.80$ in the post test, giving a mean difference of $\bar{x} = 0.11$. This mean score was not significant in that t -test = 1.43 which was not significant as p value $\alpha = 0.16$ which is greater than (< 0.05). This entails no improvement in students' writing in terms of content.

Table 4.29

Pre-test and post-test content scores of the control group.

	N	Mean	SD	Mean Difference	T	P
-Pre-test. Control group	35	1.91	0.37			
-Post-test. Control group	35	1.80	0.40	0.11	1.43	0.16

b. Organisation

As shown in table 4.30, the pretest mean for students in the control group vis a vis organization was $\bar{x} = 1.71$ and the posttest mean was $\bar{x} = 1.94$, indicating a mean gain of $\bar{x} = 0.22$. This mean score reported a significant difference with $t\text{-test} = 2.75$ which had a significant value $\alpha = .0009$ which is lower than ($p < 0.05$). This suggests an improvement in students' writing in terms of organisation. Accordingly, alternative hypothesis 2.2 was confirmed and null hypothesis 2.2 was rejected.

Table 4.30

Pre-test and post-test organization scores of the control group.

	N	Mean	SD	Mean Difference	t	P
Pre-test. Control group	35	1.71	0.53			
Post-test. Control group	35	1.94	0.45	0.22	2.75	0.009

c. Grammar

As demonstrated in table 4.31, the mean obtained mean for the grammar feature for students in the control group was $\bar{x} = 1.77$ in the pretest while it was $\bar{x} = 1.60$ in the post

test, with a mean difference of $\bar{x} = 0.17$. the non significance of this difference was proven statistically through the t-tests= 1.78, which was not significant at p value $\alpha = .08$ which is greater than ($p < 0.05$). This proves no improvement in students' grammar in the control group.

Table 4.31

Pre-test and post-test grammar scores of the control group

	N	Mean	SD	Mean Difference	T	P
Pre-test. control group	35	1.77	0.54			
Post-test. control group	35	1.60	0.49	0.17	1.78	0.08

d. Vocabulary

Table 4.32 demonstrates that the mean attained for the criterion of vocabulary for students in the control group was $\bar{x} = 1.85$ in the pretest and $\bar{x} = 1.80$ in the post test, resulting in a mean difference of $\bar{x} = 0.05$. This non significant difference was statistically validated via the use of the t-test= 0.70 which was not significant at p value $\alpha = 0.48$ which is greater than (< 0.05). This entails no improvement in students' writing as regards vocabulary.

Table 4.32

Pre-test and post-test vocabulary scores of the control group.

	N	Mean	SD	Mean Difference	T	P
Pre-test. control group	35	1.85	0.42			
Post-test. control group	35	1.80	0.40	-0.05	0.70	0.48

e. Mechanics

As displayed in table 4.33, the mean gained for the aspect of mechanics for students in the control group was $\bar{x}=1.74$ in the pretest whereas it was $\bar{x}=1.65$ in the post test, resulting in a mean difference of $\bar{x}=0.08$. Thus, this difference was not significant at t-test= 0.90 as p value $\alpha= 0.37$ which is greater than (< 0.05) which indicate no improvement in students' writing in terms of mechanics

Table 4.33

Pre-test and post-test mechanics scores of the control group.

	N	Mean	SD	Mean Difference	T	P
Pre-test.	35	1.74	0.50			
control group						
Post-test.	35	1.65	0.53	-0.08	0.90	0.37
control group						

4.1.5.3. Hypothesis 3

Hypothesis 3: There will be significant differences between the TL and CL writing in the post test.

Null Hypothesis 3: There will be no significant differences between the TL and CL writing in the post test.

4.1.5.3.1. Independent Samples t-test Control and Experimental Groups Results.

Testing this hypothesis, a further comparison was made between the CG and the EG in the pretest and the post test scores. In order to test this hypothesis statistically, the application of an *independent t-test* was needed in order to compare the scores of both groups before and after the quasi-experiment. It is noteworthy that the comparison of the

posttest scores of paragraphs was with 30 students in the experimental group and 35 students in the control group. Emphatically, the results obtained in the posttest for the EG would not be attributed to chance or other factors but to the treatment as extraneous variables were controlled by statistically ensuring homogeneity of both groups.

As can be seen in table 4.34, the posttest mean for the control group was $\bar{x}=8.53$, the $SD=1.51$ while it was $\bar{x}=13.3$ for the experimental group and the $SD=2.30$, resulting in a mean difference of $\bar{x}=4.60$ between the two groups. This mean difference score between the mean scores of the CG and EG reported a highly significant difference and suggests that the EG had higher scores in the posttest. The *independent t-test* = 9.17, p value $\alpha=0.009$ which is lower than ($p < 0.05$). This indicates that the experimental group outperformed the control group as regards paragraph writing by having higher posttest scores (see Appendix G). As a result, the results revealed that hypothesis 3 which states that there would be a significant difference in the posttest between the control group and the experimental group is confirmed and the null is rejected at $p < 0.05$.

Table 4.34

Post-test scores of the control and the experimental groups.

	N	Mean	SD	Mean Difference	T	P
Post-test. Control group	35	8.53	1.51			
Post-test. Experimental group	30	13.13	2.30	4.60	9.17	0.009

4.1.5.3.2. Independent Samples *t*-test Control and Experimental Group Results in Content, Organization, Grammar, Vocabulary, and Mechanics.

a. Content

As shown in table 4.35, the mean attained for the aspect of content for students in the experimental group in the post-test was $\bar{x}=1.86$ and $\bar{x}=2.36$ for students in the control group, resulting in a mean difference of $\bar{x}=0.50$ which was significant as the *independent t-test*= 4.50 since p value $\alpha= 0.02$ which is lower than (< 0.05). This accounts for the deduction that while the experimental group has developed in content, the control group did not.

Table 4.35

Post-test content scores of the control and the experimental group.

	N	Mean	SD	Mean Difference	T	P
Post-test. control group	35	1.86	0.40			
Post-test. Experimental group	30	2.36	0.55	0.50	4.50	0.02

b. Organisation

The results displayed in table 4.36 show that, the mean posttest score in organization for students in the experimental group was $\bar{x}=1.94$ and $\bar{x}=2.70$ for the control group, resulting in a mean difference of $\bar{x}=0.76$. This mean score difference indicated that there was no significant difference because the obtained *independent t-test* = 6.38 was not significant as p value $\alpha= 1.13$ was greater than ($p < 0.05$). This means that students in both groups improved in organization.

Table 4.36

Post-test organization scores of the control and the experimental groups.

	N	Mean	SD	Mean Difference	T	P
Post-test. Control group	35	1.94	0.46			
				0.76	6.38	1.13
Post-test. Experimental group	30	2.70	0.65			

c. Grammar

As presented in table 4.37, the mean posttest score for the aspect of grammar for students in the experimental group was $\bar{x}=1.60$ and it was $\bar{x}=2.83$ for students in the control group, with a mean difference of $\bar{x}=1.23$, which was a significant difference at *independent t-test* = 4.34 which in turn was t significant since p value $\alpha =0.04$ which was lower than $p<0.05$). This implies that grammar in paragraph writing has improved for the experimental group whereas it has not improved for the control group.

Table 4.37

Post-test grammar scores of the control and the experimental groups.

	N	Mean	SD	Mean Difference	T	P
Post-test. control group	35	1.60	0.50			
Post-test. Experimental group	30	2.83	0.69	1.23	8.24	0.04

d. Vocabulary

As shown in table 4.38, the mean attained for the criterion of vocabulary for students in the CG in the posttest was $\bar{x}=1.80$ and it was $\bar{x}=2.46$ for student in the EG, indicating a

mean difference of $\bar{x} = 0.66$. This mean score difference reported a significant difference with *independent t-test* = 5.61 which was significant as p value $\alpha = .000$ which was lower than $p < 0.05$). This means that the vocabulary of students in the EG in the posttest had improved compared to the vocabulary of students in the CG.

Table 4.38

Post-test vocabulary scores of the control and the experimental group.

	N	Mean	SD	Mean Difference	T	P
Post-test control group	35	1.80	0.40			
Post-test. Experimental group	30	2.46	0.50	0.66	5.61	.000

e. Mechanics

According to the results read from table 4.39, while the mean posttest score obtained for mechanics was $\bar{x} = 1.65$ for students in the control group, it was $\bar{x} = 2.80$ for students in the experimental group, resulting in a mean difference of $\bar{x} = 1.15$ which was not significant statistically. The result was not significant because the *independent t-test* = 8.50 was not significant as p value $\alpha = 0.09$ which exceeds ($p < 0.05$) indicating that both groups had developed in mechanics; therefore,, alternative hypothesis 3.5 was not confirmed and null hypothesis 3.5 was not rejected.

Table 4.39

Post-test mechanics scores of the control and the experimental group.

	N	Mean	SD	Mean Difference	T	P
Post-test. control group	35	1.65	0.54			
Post-test. Experimental group	30	2.80	0.48	1.15	8.50	0.09

In this section, significant differences were found in the paragraph writing between the control group and the experimental group in the pretest and posttest in the five writing features as a result of the experiment. This suggests that using web 2.0 in the form of wiki, did help in developing students' paragraph writing in form and content. Another significant difference was also found in the experimental group's scores between the pretest and the posttest, while no significant difference was found in the control group between the pretest and the posttest with the exception of organization.

4.1.6. The Corpus Analysis Results to answer Research Question 4

Research Question 4: To what extent did students' writing errors decrease after the involvement in wiki writing?

4.1.6.1. Analysis of Students' Paragraphs before and after the Integration of the Wiki.

The main objective of analyzing students' errors, both grammatical and non-grammatical, is first to know the types of errors that student commit when composing in English to diagnose the most problematic writing aspect (s) for students, and to examine whether these errors decreased or disappeared after the integration of the wiki. In other words, error analysis aims at investigating whether students' writing has developed and thus writing errors has minimized or disappeared. Therefore, analyzing students' paragraphs in the pretest and the posttest is carried out to examine tangible developments in the different writing aspects, namely support, organization, grammar and structure, vocabulary, and mechanics.

It is noteworthy that no error analysis is comprehensive without scrutinizing the reasons behind the frequent occurrence of these errors to try to find a remedy to alleviate these errors. Errors made by second language learners can be classified into intralingual

and interlingual errors. Interlingual errors are those that result from language transfer, i.e. caused by the learner's Native Language (L1), in this case Arabic. Intralingual errors, on the other hand, are those errors which result from faulty or partial learning of L2, rather than from language transfer.

It is equally important to mention that a distinction between "error" and "mistake" is made though it is not always easy to draw a line between the two. Nevertheless, the focus is on errors which Corder (1967) referred to as systematic and reflect the learners' lack of knowledge of the TL rules. Thus, the word error will be utilized throughout this thesis to imply any deviation from the norms of the TL on both the grammatical and rhetorical levels.

Moreover, no predetermined error categorization was adopted in this study, but rather an ad hoc one was used based on the errors students make as related to the five writing features mentioned above. In other words, errors which were not committed by any student fall outside the scope of the error classification. According to Barkhuizen and Ellis (2005), the error categories chosen for the analysis should be data driven; therefore, the researcher should not start by a ready-made set of categories derived from a descriptive grammar, but should develop categories to reflect the exact errors determined in the sample.

Quantitative analysis of the experimental group paragraphs in the pre-test and the post-test yielded numerical data about the percentages and frequencies of each error, and it made possible to know the least and the most frequent errors before and after the integration of the wiki. Nevertheless, the quantitative data analysis will not suffice to conclude with decisiveness about students' writing developments. For this reason, a qualitative analysis of students' texts is a *sine qua non* as it can provide considerable evidence on students' writing development as a result of writing and receiving the

teacher's corrective feedback provided on the wiki. This is done by providing excerpts from students' texts to substantiate. A comparison of errors made in each writing feature, among the five writing features, is made. Finally, conclusions are made about writing development aspects by referring to which errors have minimized and which errors have persisted.

4.1.6.1.1. Students' writing development across the five writing features and their sub-aspects in the pretest and posttest.

The table below shows both the frequencies and the percentages of errors made by students in the pretest and posttest with relation to the five writing features (support, organization, grammar and structure, vocabulary, and mechanics) and their sub-aspects.

Table 4.40

The experimental group frequency of errors in the pretest and posttest

The writing feature	The error type	pretest %	posttest%
Content	-lack of support of support	3.56	1.42
Organization	-inappropriate rhetorical pattern -lack of cohesive devices -point of view consistency	6.56	2.37

Table 4.40 continued

The writing Feature	The Error Type	Pretest%	Posttest%
Grammar and structure	-Subject/verb agreement	39.19	13.77

	verb form –articles - pronoun/antecedent agreement -verb tense - pronoun case –redundancy – fragment –sentence combination –Faulty parallelism		
Vocabulary	-word choice -word class – preposition	<i>19.71</i>	<i>11.87</i>
Mechanics	-spelling -punctuation – capitalization -format	<i>30.87</i>	<i>9.97</i>

As can be read from the table 4.40, a development is noticed in all five writing features, where an increase in error production is demonstrated. After analyzing students' paragraphs in the pretest, it was noticed that grammatical errors outnumbered non-grammatical errors by far.

Development in grammar and structure

It is taken for granted that both form and content are crucial to writing as none can develop at the expense of the other. However, students view grammatical accuracy as the most important and difficult to be mastered which is reflected clearly in this study. Though error reduction was noticed in all features, it was higher in grammar and structure and mechanics (from 39.19 to 13.77). This could be due to the students' attitudes towards writing in that they considered form to be more important than content, and thus tend to focus on form and neglect content.

This was clearly shown in the qualitative analysis which demonstrated that students wrote more accurately in the posttest after the integration of the wiki in terms of subject/verb agreement, verb tense, and sentence combination, among others. It is also important to note that students' development in sentence structure problems such as sentence combination and fragments, more than the other aspects, may be accounted for by

the fact they were practices in class. This suggests that students better understood how to write correct sentences. As for the causes of such errors, they could be L1 transfer, lack of understanding of these grammatical notions, or overgeneralisations. These are examples from the pre and post writing tests of the same pair of students:

CHAIMA

- pretest:
 - If a person **have** one diploma or more he will get the priority of taking the job than another one. (subject/verb agreement).
 - Also, an educated person **have** a promotion or an advancement from time to time (subject/verb agreement).
- Posttest: -**students do not** find many problems in the grammar of English.
 - whenever the **student wants** to go, he can communicate with people in English.

HADDA

- pretest:
 - Since people in our society **treated** on the level of their education (verb form).
 - People should be **an** educational **persons** (article)
 - To begin with, the role of education which help people to get **a** greater job **opportunities**. (article use and a fragment).
- Posttest: -when students go abroad, they can communicate with foreign people and improve their language (complete sentence).
 - nother major reason is that English allows getting **a better job** (correct use of article).

KHAOULA

- Pretest: -the educated person is more different than the person who **did not educate**, **because when the person educate** he will the opportunity to work (verb form, sentence combination/subordination).

- Posttest: *some English students chose this field because they want to build their own business in the future (correct sentence combination).*
 - some students believe that studying hard and acquiring the qualification to study abroad is **not possible** (right verb form).*

Development in Mechanics

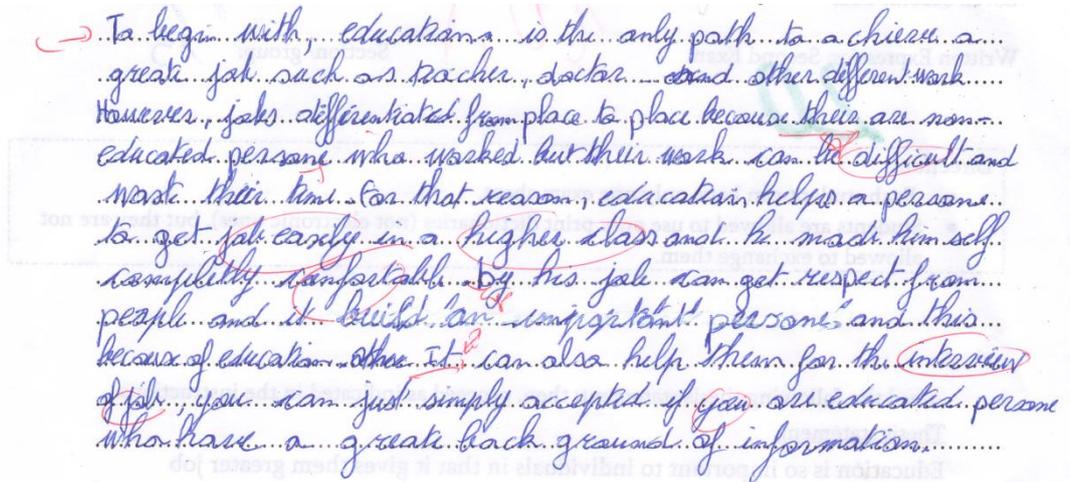
Mechanics errors were highly frequent (30.87%) in the pre writing test, but it has improved with a decrease to 9.97% in the post writing test. Problems of spelling in may be connected to students' lack of reading and exposure to English texts. Also, given that pronunciation and spelling of words are different in English, difficulties for students arose. Evidently, students write a deviant word TL norm by basing themselves on the way the word is pronounced from the TL. As a good case in point, Amira wrote: *education is an important factor that gives individuals the chance to choose the best work and best place, but all of that depends on the **grads** and **everages** of each one.* As for punctuation, capitalization, and format errors, they could due to L1 interference because punctuation rules in Arabic are different from those in English, paragraph indentation and capitalization are not writing criteria in Arabic. Nevertheless, lack of practice, inattention, and lack of internalization of the rules could also have a hand. Following are examples of students' errors in mechanics:

NOUHA

- pretest: *-it will **chose** the literate ones who have their diploma as a sign of their education (spelling).*
- Posttest: *-most students **choose** English when they are in university.*
 - *All people, particularly university students, **choose** to learn English.*

LAMIS

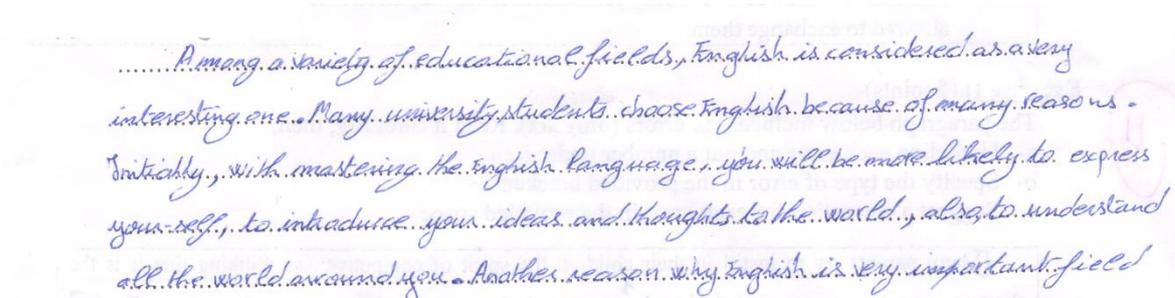
- pretest: -jobs are different from place to place because **their** are non-educated people who work (spelling).
- **Development in Format and capitalization**



→ To begin with, education is the only path to a career a...
 great job such as teacher, doctor and other different work...
 However, jobs differentiated from place to place because **their** are non-
 educated persons who worked but their work can be difficult and
 waste their time. For that reason, education helps a person to
 to get job easily in a higher class and he made himself
 completely comfortable. **by** his job can get respect from
 people and it build an important person and this
 because of education. It can also help them for the **interview**
 of job you can just simply accepted if you are educated person
 who have a great background of information.

Lamis's paragraph in the pretest lacked indentation which is an important aspect in paragraph structure. Scrutinizing the paragraph, capitalization errors can be detected where LAMIS did not capitalize after the full stop such as in the sentence "for that reason, education helps a person to get job in a higher class and he made himself completely comfortable. **by** his job can get respect from people".

- Posttest:



..... Among a variety of educational fields, English is considered as a very
 interesting one. Many university students choose English because of many reasons.
 Initially, with mastering the English language, you will be more likely to express
 your self, to introduce your ideas and thoughts to the world, also, to understand
 all the world around you. Another reason why English is very important field

LAMIS's paragraph in the posttest, on the other hand is indented and capitalized after the full stop such as in the first and second sentences.

HADDA

- pretest: Hadda's paragraph is wrongly punctuated as she only used commas; the only full stop used is at the end of the paragraph

..... First of all, education guarantees greater job opportunities, since persons in our societies trained on the level of their education, for example, the more educational person is the more likely to guarantee greater jobs, for this such reason people should be an educational persons to guarantee a good job opportunities because: if the person get a good job, he will acquire a better life and if he acquire a better life he will do his best to achieve his society. So education not only serve the person it also serve the society. & to serve a person it mean you serve the society.

- Posttest:

Clearly, HADDA's paragraph in the posttest is well punctuated; she used commas to combine sentences or after adverbials as well as full stops after complete sentences which reflects a development in punctuation use.

..... Students choose English for many reasons, but only three major reasons help illustrate the concept. Initially, English became international language. For instance, when students go abroad they can communicate with foreign people and improve their language. Another major reason is that English allows to get a better job. Every company or any place of employment asks firstly about the level of English and how the student can improve their language to get the best job.

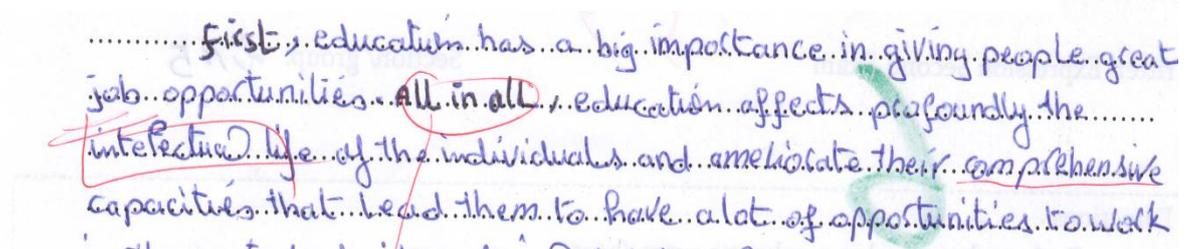
Errors in support were only slightly noticed because it is more related to students' amount of reading which can develop both knowledge and vocabulary which are both considered essential to writing skill development.

Development in Organisation

In terms of organization, an improvement was noticed from 6.56% in the pretest to 2.37% in the posttest. This improvement was on pattern of organization, cohesive devices, and use of point of view consistency. Errors in these coherence and cohesion aspects could be due to students' lack of practice or lack of understanding. Students either misuse discourse markers or insufficiently provide the necessary ones. As for rhetorical pattern of organization, students fail to understand the different patterns depending on the type of paragraph they develop, and thus, end up organizing ideas illogically. In terms of point of view consistency, students fail to keep the same pronoun use all along the paragraph; rather, their point of view shifts between addressing the second person to the third person, for instance. In the posttest, however, students used the appropriate pattern of organization, correct and adequate discourse markers, and a consistent point of view. To substantiate, the following are examples of students' paragraphs from the pre test and posttest.

SILIA

- Pretest



..... first, education has a big importance in giving people great job opportunities. All in all, education affects profoundly the interesting life of the individuals and ameliorate their comprehensive capacities that lead them to have a lot of opportunities to work



- Posttest:

..... Many students choose English in university because of many reasons, but three major causes help illustrate the concept. Initially, English is an international language. It is learned in all the world, and everyone must know how to speak it because it helps the person to communicate with other people from other countries. Also, it allowed people to travel wherever they want for they can communicate with the people of that country even they don't know their mother language. In addition, English is easy to learn. Its pronunciation is very soft, and its grammatical rules are easy. In comparison to other languages, English is considered as the most easy language around the world. The last and the most important cause is that English provides you many jobs. Since it is an international language, it facilitate to the person, who can speak it freely, to find jobs wherever he wants; for example, he can work in any company, in any country, with any people who came from other countries. Finally, let us say that English is considered as a very interesting language, what lead students to learn it.

ZOUBIDA

- pretest: point of view consistency

... At the head and as the first positive outcome that education can provide is that it guarantees greater job opportunities for individuals. First, when the individual has many diplomas, this can increase his opportunities to have a good work. For example, when the person write in his C.V. that he has three or more diplomas, he has the chance to get the job more than the one who has less diplomas. Second, when people manipulate more languages and they are of an elevated rate of education, this will lead them to be needed in the society and to be appeal for better jobs. As a result, education has a great impact on individuals and especially, that it affects their lives; by which it provides them with more chances for better jobs.

- Posttest:

The latest educational statistics show that the number of students who choose English when they are in university has increased dramatically. Many reasons lead students to choose English at university, but three major causes help to illustrate the concept. Initially, students choose English at university because it is the world's first language. For instance, English is useful while traveling since it is spoken everywhere, and people who can speak in English face no difficulty when they are out of their country in understanding the surroundings or in asking for directions. In addition to that, English students are able to make friendships with people all over the world. Another major reason why students choose English at university is that it is an easy language to be learnt. For example, English grammar is easier than grammar of other languages, and it is not complicated. Additionally, subjects studied in English often have relations between them. To illustrate, things learnt in the English literature are somehow the same like those studied in civilization module. The most important cause for students to choose English is that it has personal benefits. To illustrate, some students choose to learn English in order to increase their level in their foreign language.

BESMA

- pretest: pattern of organization

First of all, education provides a great opportunities for individuals to get job. To illustrate more, all countries who establish a strong educational system afford their citizens with high opportunities to job in comparison to other who not have a good educational system. Therefore an educated citizen who have degree and capacities can open new work on new project in which he opens opportunities for himself and for other to get job for example to build a company or to make investigation that give a beneficial outcome for ~~the~~ ^{both} individual and society.

- Posttest:

English language is an interesting educational field at university because of three general causes. First cause, English language ~~is~~ is funny and easy to learn and speak it in few days. For instance, when we study it first time we enjoy it and it's teachers. Another major cause which is English language nowadays has a variety of places of work. For example, teaching, working in office, also it is needing in business from country to another country, so ~~the~~ businessmen need it by translating ~~th~~ of their words. And without doubt the main cause of choosing English language is its uses, so we use it to communicate with foreign people by sharing also for cross-cultural exchange. To conclude, those are three major causes that led students to choose English language in university.

Development in Vocabulary

As for vocabulary, students made errors related to word choice, word class, and prepositions. The highest frequency of errors was in word choice; students lacked an appropriate register and tone, and struggled to find the right word in an appropriate context by using the wrong word that is either borrowed or directly translated from Arabic or using an informal word. Once again, lack of vocabulary is probably due to lack of reading on the part of students. With regards to word class, they occur when the writer fails to use the right part of speech, be it a noun, an adjective, an adverb, or a verb. Also, student writers may confuse between two words belonging to the same part of speech but have different suffixes and thus two opposite meanings. Errors of this kind are probably due to lack of knowledge of the TL. As for prepositions, while some of them have their equivalents in Arabic, others do not. Preposition errors occur when one preposition is substituted for another, when a preposition is added, or when a preposition is omitted when it is necessary. Both intralingual and interlingual reasons may be behind such errors.

Nonetheless, students' vocabulary in writing has developed as errors have minimized from 19.71% to 11.87% after the integration of the wiki. Using more and more the online dictionary to check word class and choose the right word, students developed their vocabulary in writing. This development, however, was mostly noticed in word class and preposition use than in word choice as the latter is more related to students' own repertoire of words which in turn is related to the amount of exposure to the English texts.

NACIRA

- pretest:
 - *The **educative** individual will be respected by all (word class)*

- *In addition to that, the **educative** person will have opportunity to get job in other country, and he will have a **flourish** future (word class).*
- Posttest:
 - For instance, they would be able **to obtain a high level** and **enrich their knowledge**.
 - Learners enjoy its **rich and interesting** culture, history, and civilization.

BESMA

- pretest:
 - To illustrate more, all countries **who** establish a strong educational system afford their citizens with high opportunities to job in comparison to other **who** not have a good educational system (wrong word choice).
- Posttest:
 - Those are the major causes **which** lead students to choose English in university.

LAMIS

- pretest:
 - it can also help them **for** the job interview (wrong preposition)
- posttest:
 - **At** the present time, whenever you go, speaking English allows you to communicate **with** different people **from** different cultures.

Development in Support

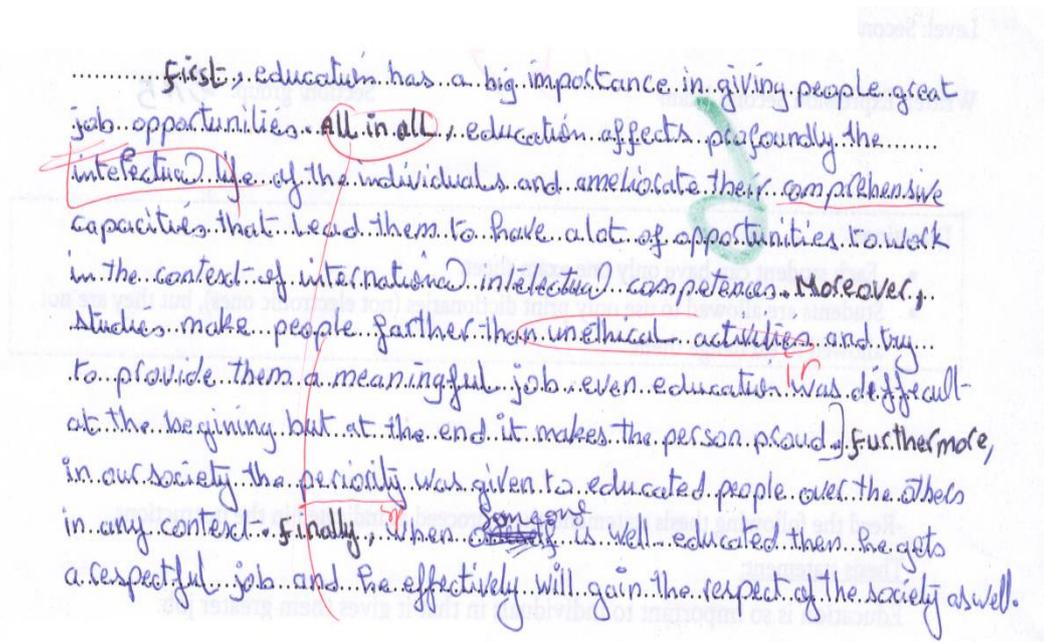
As far as support is concerned, it has developed slightly, with an error rate decrease from 3.56 to 1.42. Only few errors were computed in support because in support merely relevance and adequacy of ideas are checked unlike grammatical or mechanics errors which encompass numerous sub aspects, and thus increase the cases of errors being

congregated. Improvement in support was accounted for by providing enough supporting details to the topic sentence as well as the unity of these supporting details to the paragraph. In thi respect, students after the integration of the wiki begun writing well-supported and unified paragraphs which could be due to the continuous teacher's feedback they receive each time they finish the first draft, requesting them to go back to the stage of pre-writing to generate more ideas on the topic.

SILIA

- pretest:

Reading Silia's paragraph carefully, an irrelevant sentence, that does not serve the topic sentence, is noticed. This irrelevant sentence is "even if education was difficult at the beginning but at the end it makes the person proud. This sentence is off-topic and does not support the topic of the paragraph which is that education is important to individuals in that it provides greater job opportunities".



- posttest:

..... Many students choose English in university because of many reasons, but three major causes help illustrate the concept. Initially, English is an international language. It is learned in all the world, and everyone must know how to speak it because it helps the person to communicate with other people from other countries. Also, it allowed people to travel wherever they want. For they can communicate with the people of that country even they don't know their mother language. In addition, English is easy to learn. Its pronunciation is very soft, and its grammatical rules are easy. In comparison to other languages, English is considered as the most easy language around the world. The last and the most important cause is that English provides you many jobs. Since it is an international language, it facilitate to the person, who can speak it freely, to find jobs wherever he wants; for example, he can work in any company in any country, with any people who come from other countries. Finally, let us say that English is considered as a very interesting language, what best students to learn it.

AMIRA

- pretest:

As can be noticed in AMIRA's paragraph in the pretest, it is not well-supported; she failed to support the topic sentence with adequate ideas, and he ended up repeating the same idea in different and simple words.

..... Education is one of the most important things in individuals life. It gives them lot of things that help them in their life. For example, guarantees greater job opportunities. The educated person is more different than the person who didn't educate, because when the person educate he will have the opportunity to work rather than the other person specially in his field of education. Such as a teacher, doctor. So, education can help individuals to find jobs and provide their needs.

- posttest:

What can be noticed in AMIRA's paragraph in the posttest is that she well supported her topic sentence by providing different ideas which are in turn supported by illustrations.

..... Used in all fields and taught in almost all countries of the globe, English became the world's first language. ^{Many} College students choose English as their major for many reasons, but three of them help us to illustrate the concept. Initially, learning English in university makes the communication with all people easy. For (an) instance, a Chinese and a Japanese use English to communicate. Moreover, English is the language of science and technology; it opens for its learners doors of success in all what they do. Also, it makes student's life easy in learning other majors. Finally, another reason that make students choose English is that it provides opportunities to get a job. All in all, English is an important language and helps students a lot.

To summarize, students' error in writing in the support, organization, grammar and structure, vocabulary, and mechanics were minimized resulting in writing development in all five writing features after the integration of web 2.0 in the form of wiki. However, this does not mean that all students' writings become error free, though it was the case of few cases. That said, some errors persisted due to some students' underdeveloped linguistic and rhetorical knowledge which suggest further and continuous practice in writing.

4.1.6.1.2. Students' wiki paragraphs development in the interval period.

In order to gain more insights about students' writing, writing development was traced by analyzing the students' paragraphs in the interval period (from week 2 to week 14) which was divided to three phases to be able to see the change and progress in students' writing. Improvements in writing were judged to be made on the basis of a change in students writing in terms of error reduction from phase to phase.

Although form and content are equally considered in this study, the teachers' feedback comments on the wiki focused mainly on grammatical accuracy since more errors were

noticed on form rather than content. In other words, the paragraphs deviate vastly from an effective paragraph in terms of form more than content.

Errors will be discussed according to their nature as being form-related and content-related. Both excerpts of students' wiki paragraphs containing errors in a particular feature will as well as excerpts showing improvements in each writing feature will be provided in relation to subsequent drafts. As beforehand mentioned in the methodology chapter, a total of 126 paragraphs produced by nine students constitute the corpus to be analyzed for errors in this study. As shown in table 4.41, the total number of errors in the five writing features and sub-aspects is 801 errors. Looking closely at students' paragraphs in the three phases, an error reduction was noticed from phase to phase, but more particularly from phase one to phase three.

Table 4.41

The nine students' Errors type and frequency in 14 weeks

Type of error	No. of errors	Percentage %
Word choice	90	11.23
Spelling	89	11.11
Subject/verb agreement	82	10.23
Punctuation	77	9.61
Articles	65	8.11
Verb form	54	6.74
Sentence combination	50	6.24
pronoun antecedent	31	3.87
Format	28	3.49
Verb tense	25	3.12
Fragment	25	3.12
Point of view inconsistency	24	2.99
Capitalization	23	2.87
Faulty parallelism	21	2.62
Word class	20	2.49
Wrong rhetorical pattern	19	2.37
Pronouns	18	2.24
Lack of support	16	1.99
cohesive devices	13	1.62

Number agreement	12	1.49
Prepositions	10	1.24
Irrelevance of support	9	1.12
Total	801	100 %

Grammar and Structure

The first phase: Errors related to grammar were the most predominant in and encompass: subject/ verb agreement, verb form, verb tense, pronoun/antecedent agreement, pronoun case, sentence combination, fragment, and faulty parallelism. The highest percentage of grammatical errors was in subject/verb agreement (10.23%) followed by articles (8.11), verb form (6.74%) and sentence combination (6.24%). Other problematic aspects in grammar were verb form and fragments, pronoun case, and number agreement. In the first phase, grammatical errors were at their highest rate due probably to the newness of the writing to students given that the second year is the first year they practiced writing. The following are examples taken from different students:

- **Subject/verb Agreement:**

-*Tunisia receive* thousand of tourists around the year especially in summer. Furthermore, *algeria have* a bad system of education in comparison with *Tunisia which have* a good one. The last point is that Tunisia still *suffer* till now from civil war (NACIRA).

--**No one also participate** with her or him the happy or the sad moments (ZOUBIDA)

- At the same time the revision refreshes **their mind (s)** because if **the teacher ask** them about **previous lecture**, students would answer and this deed (deed) will satisfy the teacher (HADDA).

- **Verb Form:**

- it mean *that people used to be friends with nature and they were breath a clean air and ate fresh food* (NACIRA).

- If a **single person** earn (s) his/her own money, this money can **be spend** freely without thinking (HADDA).
- Next, the person can recuperate the energy that **is waste** during exam time (LAMIS)
- Even though lamis and nacira **are both live** in the same place (LAMIS).
- Algeria in the black decade **characterized** by **unsecurity** (CHAIMA).

- **Articles:**

- to **have very good average** in exams students must revise their lessons and be confident.(NACIRA)
- when you live alone you could make or take **a wrong decisions** where the society can't forgive you about it (NOUHA).
- you will pay **high price** for a silly thing you may did mistakenly (ZOUBIDA)
- A clear defference is that **single person feels** more free and independent (SILIA)
- in college students must attend class **to get good mark** (CHAIMA).
- weeding is sign of happiness** and *in order to make it well organized we have to take this advice into consideration* (BESMA).

- **Sentence Combination:**

- There are some steps may be followed* in order to improve English (ZOUBIDA)
- students should make an outline to every lesson they study and this would help them when they revise, the lesson will be very easy to revise and this will help them to understand and to anser easily* (HADDA).
- Having a party or weeding can be considered as big **responsibility** for many people because it must **seem to be well organized, making a good party need many steps that should be done** (BESMA).

- **Number agreement**

- Students must take into consideration **some point** (NACIRA)
- The **arab** wedding customs are totally different from the European wedding **in many point** (HADDA).
- To prepare for a rest after exams, students need to follow **certain step** (LAMIS).
- Although high school and college are both educational institutions which help people achieve greater intelligence, they differ in **some point** (CHAIMA).

-Algerian classes share **some similarity** with **European one**, but they contrast in **several point** (BESMA).

The second phase: Students' writing in the second phase in grammar and structure was more developed in comparison to the first phase as it was characterized by error minimization in some aspects. Students continued to make errors in some aspects, however in subsequent paragraphs which could be due to lack of internalization of certain grammatical rules. The aspects which have noticed improvements included: subject/verb agreement, verb form, and fragments while the errors which persisted included number agreement, sentence combination and articles.

Improvements in subject/verb agreement and verb form:

-Child labor is an illegal business that **employs** children in any work, and deprives them of their childhood. (NACIRA)

- Studying a lot may lead them to eating and sleeping problems **which affect** the body negatively (ZOUBIDA)

-For instance, a man who keeps **asking his wife** * the same thing with the wife who asks a lot of questions (NOUHA)

- Children who see violent scenes are more likely to be aggressive *and learn bad behaviors*. (HADDA)

No improvements in number agreement, articles, and sentence combination:

• : -Thirdly other *reason leads to the divorce is* the interference of parents in the couple's privacy -Secondly, *other bad consequence* of parents' pressure on their children is that the child will face **a psychological problems** * we take the early marriage as the first reason **which led to the collapse of the relationship between the couple, because this pair can not assume the huge responsibility of marriage**.
NACIRA

• : -*Because, parents who don't accomplish their duties may face serious problems*
ZOUBIDA

-*The most important consequence is on the social shelve, the person will act in a strange way, less interaction with people round him, for example, he will change his attitudes which will maybe destroy his relationship with the society members* ZOUBIDA

- -Many parents push their children to get **a high grades** using pressure (NO article).
NOUHA:

- -The second cause lack **of interesting** in each other is one **of causes lead marriage to fail**. HADDA:

- they **escaped** from the school in order to look **for job** since they are poor (LAMIS no article).

-from trying to be **a good students** with high levels to **a good cheaters** with a high marks (CHAIMA no article).

-when **you** increase your pressure on your children **this brings the negative impact of their health may be they will not care about it** (CHIMA no, sentence combination).

-luck of responsibility is the second common reason of marriages failure, **because duties and responsibilities** of the family should be equally divided among the couples (CHAIMA no sentence combination).

-- school dropout **is problem** that must be solved in the near future (ARTICLEBESMA).

-we have to be aware about what they receive from TV and try to reduce **this phenomena** (BESMA no number agreement).

-**Moreover**, sleep prevention can cause **many social problem** (BESMA no number agreement).

The Third Phase: Most students' errors in the different writing aspects dropped considerably in the last phase. Grammar and structure developed in the different writing sub-aspects including subject/verb agreement, number agreement, articles, verb form, and sentence combination.

- **Subject/verb agreement**

-First of all, good friends are the ones who love, help, and take care o you (NACIRA).

-**it helps** students to know more about the country's culture and life style (NACIRA).

-reading books **enriches** our knowledge and vocabulary especially in the case of learning foreign languages (ZOUBIDA).

-Some **qualities are** needed in order to be a good teacher (SILIA).

-- **it gives** the priority to get higher graded through participating in competitions like master and doctorat (HADDA).

-First, when **people** are stressed, they can go out alone or with friends to do shopping or for a picnic to help **him** relax (CHAIMA).

- **Number agreement**

-It is important for students of English to visit an English-speaking country for **many reasons** (NACIRA)

-Statistics have shown that not only does reading improve the four skills, but also allow readers to know the **different cultures and civilizations** of other nations (ZOUBIDA).

--Good parents should have **three main qualities** (SILIA).

-A good friend is characterized by **many qualities** (HADDA).

-Poor writing is a problem **many students** suffer from (LAMIS).

- **Articles**

-good parents should take responsibility regarding their children by supplying all their needs and trying to provide all suitable conditions for **a good life** (NACIRA).

-First of all, honesty is considered **an important characteristic** as an honest friend should tell the truth even in difficult situations, and he helps improving the relationship and its continuity (ZOUBIDA).

-Obesity is **a problem** that many people suffer from, and that can be solved by eating healthy food, practicing sport and having enough sleep (SILIA).

* This person should cope with **the other's personality** and way of dealing with relationships because any relationship, especially friendship, can succeed when friends are honest (NOUHA)

-Lack of reading among children is **a serious problem** but which can be solved (HADDA).

-**a good friend** should be **a good listener**; he can listen to you any time and each time you feel upset or overexcited (BESMA).

- **Verb form**

- they need to use modern methods to educate their children **like talking** to them instead of **hitting them** as it will affect them negatively (NACIRA)

-Secondly, a good parent should be flexible when dealing with children by **adjusting** himself to their way of living and thinking and not be strict all the time (ZOUBIDA).

- Finally, **to be considered** good, the teacher should use an effective and organized method of teaching because this is the most important thing (NOUHA)

-having enough sleep and rest **is considered crucial** to create a balance because working hard and being hectic all the time may affect our health negatively (SILIA).

- **Sentence combination**

-the good teacher is the one **who makes** the subject's program interesting to students and makes class time a good experience (NACIRA).

* dealing with English native speakers enables students of English to learn new words, enrich their vocabulary, and to correctly pronounce words

-Understanding, as a second quality, is absolutely required **because friends who understand each other are said to have the longest relationships** (ZOUBIDA)

-parents should prevent their children from eating unhealthy food **which is sold outside** by cooking healthy food home which is rich in fruits and vegetables (NOUHA).

- obese people need to **eat healthy food which involves vegetables which are** very rich in vitamins that are compulsory to the body (SILIA).

-**Whenever you** have a problem that you cannot handle on your own, **you can rely** on him to help you (BESMA).

Mechanics

In mechanics, such sub-aspects as spelling, punctuation, capitalization, and paragraphing were tackled. Students' errors in mechanics were very high in the first phase because they are related to English writing conventions which students are not familiar with yet and which are distinct from Arabic. Spelling errors were the highest in number (11.11%), followed by punctuation (9.61), format (3.49), and capitalization (2.87) from the total number of errors.

- **Spelling**

- students should prepare their lessons before coming to class because if they do that they will be able to **performe** better in class (NACIRA),

-he *will* **benifit** from those movies, he will see how they speak and pronounce and at the same time he will listen carefully and grasp how to vocalize **english fluently** (ZOUBIDA).

-because she **devides** her love equally between her children who are part from her (NOUHA).

-The single and the married *people* **deffere** in the among of responsibilities expected to person and the among of the freedom he had (SILIA).

-the lesson will be very easy to revise and this will help them to understand and to **answer** easily (HADDA).

-we find that Algerian **citizens** were **suffering** from lack of schools (CHAIMA).

- **Punctuation**

--They used to wear **clothes they made them with their hands** using raw materials **like: skin** of animals (ZOUBIDA)

- preparing food is one of the basics to make the party a successful one, **for example, making a list of different kinds of food** that should be prepared to be served regularly in the party (SILIA).

-**For example:** she cares if they do their tasks and how to develop their skills and levels (NOUHA)

-Exams are very important to students because **it** is considered as a chance to evaluate their level and to improve their **skills, however** revision for exams needs to follow some steps (HADDA).

-Furthermore, college students are more responsible; **Therefore**, if they have three absences, they will be excluded (CHAIMA)

- **Format**

In format, most students' paragraphs in the first phase deviated from the conventions of paragraph structure in terms of indentation and the one-block piece of writing as show in the two examples below:

HADDA: No one-block piece of writing, no indentation

Failed marriage can for many reasons ,some of which are a forced marriage, and lack of interesting.

The first cause of failed marriage in our society is a forced marriage this point figure out that the spouse is married without his or her consent .A forced marriage differs from an arranged marriage ,in which bouth spouses consent to the assistence of their parents .Forced marriage is still practised in various cultures across the word and still the main couse of failure marriage

The second cause .Lack of interesting in each other is one of causes lead marriage to fail .The Family is the best place to share everything about work friends home works and every thing in life .Moreover, wife or husband shares house problems to solve each other and family .otherwise, when the husband return home the wife have to do many things such as cleaning washing cooking and take care children so he will found her very tired and angry ...she is unintentional to cause boring family and the interesting of her husband will decrease and day by day her confidence about her husband will disappear and automaticly the husband will feel tired when the wife always grumboles about every thing

If we want to build a happy family we should avoid all the obstacles that lead marriage to fail ani give the spouse the option to choose the suitable things for their life .

- **Capitalization**

-However, *life now it is easy* because we have *cars, planes, phones, etc. finally, the life* in the past was a clean and pure one (NACIRA)

-a person who fears speak **english** because of making mistakes may take into consideration this first step (ZOUBIDA).

-Although the students **from european countries** and Algerian students share a lot of similarities (SILIA)

-While *European students are enjoying there classes because they have different means to help theme like laboratory, high technology, library, and easy transportation, Algerian pupils are suffering from the absence of these means. however, Algerian classes differ from the European one in terms of degree* (BESMA).

What was noticed in students' paragraphs in the second phase in mechanics is a decrease in errors related to paragraph structure and capitalization which was not the case, however, with punctuation and spelling errors which persisted.

AMIRA: indentation and capitalization, but many punctuation and spelling errors.

¹ *Failed_marriage* is a result of several reasons. *In* the **begining**, we take the early marriage as the first reason which led to the collapse of the relationship between the couple, because this pair can not assume the huge **responsibility** of marriage. *In* addition to that, the bad treatment and dealing between **the part for example**, a woman who didn't care about her husband's feelings and matters and vice versa, *Thirdly* one other reason led to the divorce and **failled** of marriage is the interference of parents in the couple's privacy, this **creats** hostility between the two **familly**, then they will of course effect the relation between pair and this relation will end with divorce.

As for students' paragraphs in the third phase, while errors were reduced more in format, capitalization, punctuation and in comparison to spelling for some students, almost all the mechanics aspects developed for other students.

NOUHA: some spelling errors



Studying in **collige** is important for three main factors. The first factor is that **collige** student would deepen their knowledge. For example, students of English will study the language in detail not like high school. The second factor why studying in **collige** is important is that students will develop their way of thinking and skills because they will interact with more professional and academic teachers who can help him be a better person. The third and most important factor to go to university is that students can get a diploma by the end, and they will be able to find a good job. All in all, studying in **collige** is important because it deepens the knowledge, develops the way of thinking, and provides jobs.

CHAIMA: no errors in mechanics



Certain qualities need to be in a teacher to be good. First, politeness is the first and most important principle. For example, some teachers speak harshly with students, and others frown and never smile. Teachers choose punishment instead of advice which can help well. Second, being a good teacher means having enough knowledge about the module. In other words, if the teacher lacks knowledge students will not understand the subject well. In addition, being punctual is another quality of a good teacher; some teachers come late to class and leave early. All in all, good teachers are polite, competent, and punctual.

Vocabulary

Vocabulary errors were reduced from phase one to phase three. The highest percentage in vocabulary was congregated in word choice (11.23%) then in word class (2.49%). Students faced difficulties in choosing the appropriate word to fit the context, to choose the right level of formality of words, to find the right word class, and to make the right collocations of words. The reasons for such errors could be L1transfer, lack of linguistic knowledge and lack of reading in the TL, and borrowing from other languages such French as shown in the following examples:

- life in the past was so simple and families **were cooperated** (*word class, NACIRA*)
- She gives them her tenderness where they **feel by security** (word choice, NOUHA)
- To **have very good average** in exams students must revise their lessons and be confident (SILIA, word choice).
- and **the interesting** of her husband will decrease and **day by day** (HADDA, Word class).

-Secondly in the past, because of war **the economic** was destroyed as a result there was no **progressing** (CHAIMA, word class).

As far as vocabulary is concerned in the second phase, some improvements were noticed in word class but a few in word choice. The reason is probably that the former has to do more with grammar while the later is more related to students' own repertoire which can developed overtime by reading and dictionary use. in the NOUHA's paragraph below, there is an appropriate use of word class but a wrong word choice such as in saying "women should determine", "the determined day", to leave a good impact", and "to have a successful tea party that remains in everyone's memory".

Tea party preparation needs some steps to be followed. First of all, women should determine the time and the place of the party so that the invitees know when and where they are invited to, so that they can prepare themselves and to be free on the determined day. Second, to prepare for a tea party, women should make some sweets to leave a good impact on the invitees. The party is also considered as a chance for women to show their cooking skills. The last step of tea party preparation is to send invitations to their friends and their family members that women want to meet in their houses. In addition, to show kindness and respect to invitees, women should send written invitation and not call them on phone or send them a message telling them about the tea party because this dead may disturb them. Thus, to have a successful tea party that remains on everyone's memory, women should do their best to achieve the previous steps.

As regards vocabulary development in the third phase, only few errors were noticed in word class and word choice which is the case of ZOUBIDA in the following paragraph:

Kindliness, deep knowledge, and attractive personality are three characteristics of a good teacher. To start with, a good teacher is the one who is kind with his students, and even make students share their worries with him without fear or reluctance. Students dislike teachers who are arrogant and mean. Moreover, a good teacher is the one who has deep knowledge of the subject he teaches. If the teacher lacks the necessary information he will fail to teach professionally and build a bad reputation. Furthermore, a good teacher should have a good personality which attracts students to it. Having a good personality means dressing well, speaking well, and behaving well. To conclude, a good teacher should be friendly with students, have adequate knowledge, and have an attractive personality.

Support

Under support, both unity and adequacy of ideas were discussed. This writing aspect was introduced and thoroughly explained by the teacher in the written expression course in class. This writing aspect has developed as errors were slightly minimized. Students were

attentive not to include any irrelevant ideas to the paragraph, which seemed to be an easy task for them in that only a few paragraphs contained irrelevant ideas. It is the adequacy of support, however, which seemed to be problematic to students in the first and slightly second phase. Students struggled to provide enough supporting details to the topic sentence. This could be due to their poor repertoire and the nature of the topic, probably. The following paragraph shows lack of support as the student fails to give illustrations and minor details to support the topic sentence.

To prepare for exams, students must take into consideration some points. First of all, students should prepare their lessons before coming to class because if they do that they will be able to perform better in class, and they won't forget ever those lessons. Secondly, to prepare for successful exams, students have to read books and do a lot of exercises which have relation with exams. Moreover, students mustn't be panic or anxious during exams to avoid losing concentration. Finally, to have very good average in exams students must revise their lessons and be confident.

Support in the last weeks was richer and unified as shown in the following paragraph:

Certain qualities need to be in a teacher to be good. First, politeness is the first and most important principle. For example, some teachers speak harshly with students, and others frown and never smile. Teachers choose punishment instead of advice which can help well. Second, being a good teacher means having enough knowledge about the module. In other words, if the teacher lacks knowledge students will not understand the subject well. In addition, being punctual is another quality of a good teacher, some teachers come late to class and leave early. All in all, good teachers are polite, competent, and punctual.

Organisation

Coherence and cohesion were discussed under organization. In coherence issues such as the pattern of organization and point of view consistency (also referred to in this study as pronoun consistency) were tackled. Cohesion, on the other hand, focused on the use of cohesive devices to link the ideas of the paragraph. However, students did not fully succeed to obtain a coherent paragraph in terms of using the right rhetorical pattern, pronoun consistency and the appropriate transition signals especially in the early weeks of

the study. Possible explanations to this could be: the newness of these notions, and lack of logic and critical thinking, and students' insufficient knowledge about coherence as it a more abstract aspect compared to unity and the appropriate use of transition signals. The following paragraph produced by ZOUBIDA shows lack of logical pattern of organization and transition signals.

Parents' pressure on their children to get high grades may leave terrible consequences on them. We can say that parents who obliged their children to have high grades, has a negative influence on their minds; they might keep thinking about achieving this goal until they become sick because of studying all the time. Studying a lot may lead them to eating and sleeping problems which affects the body negatively. In addition, those children might be obsessed about studies which may affect them psychologically. We can say that children are human beings not robots. Causing pressure on them to study well would give no good results, but it will only make things worst and worst.

As about Pronoun consistency or point of view consistency which requires using the same pronoun all along the paragraph, students showed pronoun inconsistency by shifting from first person to second or third person, from second person to first or third person, and from third person to first or second person. Moreover, shifts were similarly noticed in singular and plural forms of pronouns as clearly shown in the following paragraph:

Although people think that living alone and living together are similar, they have different features. To begin with, to live alone means to think many times before doing anything; especially if something deals with money. Therefore, **your** life is fulfilled with problems simply because **you** don't have a leg to stand on. For example: if **you** don't pay the rent on the exact day, you might be fired from the house you live in. On the other hand, to live together means to forget about financial problems and to do what **you** want because **you** are surrounded by your family. Moreover, living alone gives **you** a sad life where **you** suffer from isolation. For instance: **A person who lives alone**, you find **him or her** prefers to stay alone without speaking to others. No one also participate **with her or him** the happy or the sad moments. On contrary, living in groups provides **you** a happy life. It means that, all the numbers of your family would be with you in your bad situation as well as in your good ones. Finally, the style of living alone is more different than living together (awkward). This means that, when **you** live alone you could make or take a wrong decisions where the society can't forgive **you** about it. For example: **you** will pay high price for a silly thing you may did mistakenly. In other words, **you** might be hated for ever just because of mistakes. However, if **you** live with **your** family, they would advise when you make mistakes. At the same time, they would show **you** the right way without panishment. Thus, **you** should think carefully before you take any decision about your life: wether to live alone or to live in groups.

Despite the continuous teacher's corrective feedback to students, they seemed not to be able to overcome problems of paragraph organization in the second phase; they showed no improvement in using the right pattern of organization and pronoun consistency as can be seen in the AMIRA's paragraph below, where she was inconsistent in her point view by using the third person in the plural "parents and their" and then shifting to addressing the audience "you" by the end of the paragraph.

The consequences of parents pressure on their children to get a high marks are very common nowadays. First of all, some **parents** obliged their children to study even more than their powers. this one made them so stressed and scared. Also, it affected negatively on their levels and skills. In addition, most of the **parents** are compared their children between others, but they don't know that this can change the principles and aims of **their** children from trying to be a good students with high levels to a good cheaters with a high marks. Finally, when **you** increase your pressure on your children this brings the negative impact of their health may be they will not care about it.

In the last weeks, however, students showed considerable improvements in organization which can be manifested in the drop out in the number of errors related to this feature. Students' were characterized by an appropriate use of the pattern of organization, point of consistency, and the right use of transition, with the exception of few students.

Logical pattern of organization:

Good parents should be educated, take responsibility and be loving and caring towards their children. First, they need to use modern methods to educate their children like talking to them instead of hitting them as it will affect them negatively. As a result, they will become violent in the future. Second, good parents should take responsibility regarding their children by supplying all their needs and trying to provide all suitable conditions for a good life. Finally, good parents should always show affection to their children so that they do not look for it in strangers.

 Add Discussion

Point of view consistency

Kindliness, deep knowledge, and attractive personality are three characteristics of a good teacher. To start with, a good teacher is the one who is kind with his students, and even make students share their worries with him without fear or reluctance. Students dislike teachers who are arrogant and mean. Moreover, a good teacher is the one who has deep knowledge of the subject he teaches. If the teacher lacks the necessary information he will fail to teach professionally and build a bad reputation. Furthermore, a good teacher should have a good personality which attracts students to it. Having a good personality means dressing well, speaking well, and behaving well. To conclude, a good teacher should be friendly with students, have adequate knowledge, and have an attractive personality.

Transition signals:

Kindliness, deep knowledge, and attractive personality are three characteristics of a good teacher. **To start with**, a good teacher is the one who is kind with his students, and even make students share their worries with him without fear or reluctance. Students dislike teachers who are arrogant and mean. **Moreover**, a good teacher is the one who has deep knowledge of the subject he teaches. If the teacher lacks the necessary information he will fail to teach professionally and build a bad reputation. **Furthermore**, a good teacher should have a good personality which attracts students to it. Having a good personality means dressing well, speaking well, and behaving well. **To conclude**, a good teacher should be friendly with students, have adequate knowledge, and have an attractive personality.

To conclude, this section focused on students' error minimization as a sign of writing development by means of applying an error analysis to students' corpus of paragraphs produced on the wiki. The results revealed error reduction, and thus, improvements in all writing features. However, while errors in some writing sub-aspects in grammar decreased, others seemed to need a longer time to do so due to the students' poor linguistic knowledge. Also, a scrutiny of the students' paragraphs in the interval period demonstrated a considerable improvement in students' writing especially between the first and the third phase.

4.1.7. Hypothesis 4

4.1.7.1. Paired Sample t-test Experimental Group Pre-posts Questionnaire Results

Hypothesis 4: The pre- and post-test questionnaire responses of students in the experimental group in the perceptions to writing and corrective feedback will be significantly different before and after the involvement in web 2.0.

Null Hypothesis 4: The pre- and post-test questionnaire responses of students in the experimental group in the perceptions to writing and corrective feedback will not be significantly different before and after the involvement in web 2.0.

To this hypothesis, the *paired-sample t-test* was utilized to all questions (from question one to 10) because perceptions of students in the experimental group were measured twice, prior and post to the treatment. All the questions fall within the 5 Likert scale of measurement, ranging between 1. Strongly agree to 5. Strongly disagree respectively as such: 1= strongly agree, 2= agree 3= undecided 4= disagree 5= strongly disagree. Besides, the items containing Likert scale were attributed the values from 1 to 5. The value 1 is given to the option strongly agree and 5 to strongly disagree because the items are negative for which reason the scale is reversed instead of being kept straight.

As shown in table 4.42, the total mean of questionnaire responses for the ten items attained for students in the experimental group in the pretest was $\bar{x}=1.81$ and $SD= 0.28$ while it was $\bar{x}=4.35$ in the post test and $SD= 0.23$, yielding a mean difference of $\bar{x} = 2.54$, which is a highly significant difference where *paired t-test*= 66.61, $\alpha = .000$ which is lower than ($p= 0.05$). This constitutes strong evidence that students in the experimental group had changed their minds positively with regard to perceptions of writing and corrective feedback after being engaged in web 2.0 writing. On this basis, the alternative hypothesis 4 was confirmed and null hypothesis 4 was rejected as students' perceptions towards writing

and corrective feedback will be significantly different between the pretest questionnaire and the posttest questionnaire.

Table 4.42

Comparing pre-test and post-test responses of experimental group's attitudes concerning writing and efficacy of corrective feedback efficacy.

	N	M	SD	Mean Difference	t	P
Pretest Exp	30	1.56	0.81		35.03	
Posttest Exp	30	3.83	0.46	2.27		.000
Q 1.						
Pretest Exp	30	1.33	0.54	2.53	28.38	.000
Posttest Exp	30	3.86	0.50			
Q 2.						
Pretest Exp	30	1.36	0.61	2.67	27.55	.000
Posttest Exp	30	4.03	0.55			
Q 3.						
Pretest Exp	30	1.73	0.69	3.0	31.24	.000
Posttest Exp	30	4.13	0.50			
Q 4.						
Pretest Exp	30	1.63	0.55	3.2	53.76	.000
Posttest Exp	30	4.83	0.37			
Q 5.						
Pretest Exp	30	2.13	0.50	2.33	25.19	.000
Posttest Exp	30	4.46	0.50			
Q 6.						
Pretest Exp	30	2.06	0.63	2.37	30.48	.000
Posttest Exp	30	4.43	0.50			
Q 7.						
Pretest Exp	30	1.56	0.81	3.37	96.00	.000
Posttest Exp	30	4.93	0.25			
Q 8.						
Pretest Exp	30	1.03	0.18	3.67	24.23	.000
Posttest Exp	30	4.70	0.46			
Q 9.						
Pretest Exp	30	4.23	0.67	0.10	15.35	.000
Posttest Exp	30	4.33	0.47			
Q 10.						
Pretest Exp	30	1.81	0.28	2.54	66.61	.000
Total		4.35	0.23			
Posttest Exp	30					
Total						

Question 1: I face many difficulties with writing

This question was about students' perceptions of the difficulties they face with writing before and after the treatment. As shown in table 4.34, the mean attained for students in the experimental group in the pretest was $\bar{x} = 1.56$ while it was $\bar{x} = 3.83$ in the post test, giving a mean difference of $\bar{x} = 2.27$, which is highly significant as the *paired t-test* = 35.03 and $\alpha = .000$ which is lower than ($< p = 0.05$). This was evidence that students' perceptions in the experimental group towards facing many difficulties in writing had changed positively after being engaged in web 2.0 writing.

Table 4.43

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	60	26.7	10	3.3	0.0	1.56	0.81			
posttest	0	0	20	76.7	3.3	3.83	0.46	35.03	.000	2.27

Question 2: Going through all the stages of the writing process is difficult to be achieved.

This question was about students' perceptions of going through all the stages of the writing process when writing paragraphs. As shown in table 4.44, the mean obtained for students in the experimental group in the pretest was $\bar{x} = 1.33$ while it was $\bar{x} = 3.86$ in the post test, yielding a mean difference of $\bar{x} = 2.53$, which is a highly significant difference where *paired t-test* = 28.38 and $\alpha = .000$ which is lower than ($< p = 0.05$). The results indicated that students considered following all the stages of the writing a paragraph a difficult chore, but they no longer did when they engaged in web 2.0 writing using the wiki.

Table 4.44

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	70	26	3.3	0	0	1.33	0.54	28.38	.000	2.53
posttest	0	0	20	73.3	6.7	3.86	0.50			

Question 3: Time constraints prevent me from practicing adequately

This question was asked to elicit whether or not students consider time constraints as obstacles preventing them from practicing enough. As table 4.45 demonstrates, the mean gained for students in the experimental group in the pretest was $\bar{x} = 1.36$ while it was $\bar{x} = 4.03$ in the post test, with a mean difference of $\bar{x} = 2.67$, which is a highly significant difference, the *paired t-test* = 27.55, $\alpha = .000$ which is lower than ($< p = 0.05$). The results showed that students thought that they did not consider time to be a barrier hampering their practicing.

Table 4.45

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	70	23.3	6.7	0	0	1.36	0.61	27.55	.000	2.67
posttest	0	0	13.3	70	16.7	4.03	0.55			

Question 4: Receiving corrective feedback on my writing is embarrassing

This question was about students viewing the teacher's corrective feedback as embarrassing. As portrayed in table 4.46, the mean procured for students in the experimental group in the pretest was $\bar{x} = 1.73$ while it was $\bar{x} = 4.13$ in the post test, yielding a mean difference of $\bar{x} = 3.00$, which is a highly significant difference where

(paired *t*-test= 31.24, $\alpha = .000$ which is lower than ($< p= 0.05$). Hence, the results indicated that students' attitudes had changed after web 2.0 writing integration in that they feelings of embarrassment disappeared.

Table 4.46

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	t	P	Mean difference
Pretest	40.1	46	13.3	0	0	1.73	0.69	31.24	.000	3.0
posttest	0	0	6.7	73.3	20	4.13	0.50			

Question 5: The feedback I receive on my writing is not adequate

This question was asked to elicit answers from students about what they perceive of the adequacy of corrective feedback. This question was worded negatively, so the mean scores for pre- and post-tests were reversed to show a positive development, in order to make comparison easier. As shown in table 4.47, the mean attained for students in the experimental group in the pretest was $\bar{x}=1.63$ while it was $\bar{x}=4.83$ in the post test, yielding a mean difference of $\bar{x}=3.20$, which is a highly significant difference where (paired *t*-test= 53.76, $\alpha = .000$ which is lower than ($< p= 0.05$). Therefore, the results revealed that the attitudes of students had changed after the treatment in that they received adequate feedback for their writing.

Table 4.47

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	t	P	Mean difference
Pretest	40.1	56	3.3	0	0	1.63	0.55	53.76	.000	3.2
posttest	0	0	0	16.7	83.3	4.83	0.37			

Question 6: The teacher’s corrective feedback is not helpful

Similar to question five, this question was worded negatively, so the mean scores for pre- and post-tests were reversed to show a positive development, in order to make comparison easier. This question was about students’ perceptions of not benefiting from the teacher’s corrective feedback. As shown in table 4.48, the mean obtained for students in the experimental group in the pretest was $\bar{x} = 2.13$ while it was $\bar{x} = 4.46$ in the post test, yielding a mean difference of $\bar{x} = 2.33$, which is a highly significant difference where (*paired t-test* = 25.19, $\alpha = .000$ which is lower than ($p = 0.05$). The results revealed that students thought that they benefited from the teacher’s corrective feedback after being involved in web 2.0 writing.

Table 4.48

Students’ answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	t	P	Mean difference
Pretest	6.7	60	23.3	0	0	2.13	0.50	25.19	.000	2.33
posttest	0	0	0	53.3	46.7	4.46	0.50			

Question 7: The teacher’s corrective feedback is not comprehensible

This question was also negatively worded, so the pretest and the posttest scores were reversed to show a positive development so that comprehension is facilitated. The question is about students’ perceptions of clarity of the teacher’s corrective feedback. As shown in table 4.49, the mean attained for students in the experimental group in the pretest was $\bar{x} = 2.06$ while it was $\bar{x} = 4.43$ in the post test, yielding a mean difference of $\bar{x} = 2.37$, which is a highly significant difference where (*paired t-test* = 30.48, $\alpha = .000$ which is lower than ($p = 0.05$). The students, according to the results, thought that they understood the teacher’s corrective feedback after the involvement in web 2.0 writing.

Table 4.49

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	16.7	60	23.3	0	0	2.06	0.63	30.48	.000	2.37
posttest	0	0	0	56.7	43.3	4.43	0.50			

Question 8: The teacher does not manage to provide all students with corrective feedback.

This question was worded negatively with a reverse of the pretest and posttest scores to show a positive development and in order to facilitate comprehension. This question asked to elicit responses from students the fact that teachers do not manage to provide the whole class with corrective feedback. As shown in table 4.50, the mean attained for students in the experimental group in the pretest was $\bar{x}=1.56$ while it was $\bar{x}=4.93$ in the post test, yielding a mean difference of $\bar{x}=3.37$, which is a highly significant difference where (*paired t-test*= 96.00, $\alpha = .000$ which is lower than ($< p= 0.05$). It was revealed in the results that students thought that the teacher managed to provide all students with corrective feedback.

Table 4.50

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	63.3	16.7	20	0	0	1.56	0.81	96	.000	3.37
posttest	0	0	0	6.7	93.3	4.93	0.25			

Question 9: I do not receive adequate feedback at the different stages of the writing process

This question was about students' attitudes towards not receiving adequate feedback at the different stages of the writing process. As displayed in table 4.51, the mean secured for students in the experimental group in the pretest was $\bar{x} = 1.03$ while it was $\bar{x} = 4.70$ in the post test, yielding a mean difference of $\bar{x} = 3.67$, which is a highly significant difference where (*paired t-test* = 24.23, $\alpha = .000$ which is lower than ($< p = 0.05$). The students, therefore, perceived that they received adequate corrective feedback in the different stages of the writing process.

Table 4.51

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	96.7	3.3	0	0	0	1.03	0.18			
Posttest	0	0	0	30	70	4.70	0.46	24.23	.000	3.67

Question 10: Feedback improved my paragraph writing in form and content.

This question was about students' perceptions of the contribution of feedback in improving their paragraph writing in form and content. As shown in table 4.52, the mean attained for students in the experimental group in the pretest was $\bar{x} = 4.23$ while it was $\bar{x} = 4.33$ in the post test, yielding a mean difference of $\bar{x} = 0.10$, which is a highly significant difference where (*paired t-test* = 15.35, $\alpha = .000$ which is lower than ($< p = 0.05$). According to the results, the students thought that receiving corrective on improved their paragraph writing skills in form and content.

Table 4.52

Students' answers to difficulties in writing in the pre-test and the post-test

	SA%	A%	UN%	D%	SD%	M	SD	T	P	Mean difference
Pretest	13.3	50	36.7	0	0	4.23	0.67	15.35	.000	0.10
Posttest	0	0	0	66.7	33.3	4.33	0.47			

4.1.8. The Post Treatment Questionnaire and Interview Results to answer Research

Question 5

Research question 5: What are students' perceptions of integrating Web 2.0 into classroom learning to develop their writing skill?

This research question was answered by two research instruments, namely the post-treatment questionnaire and interview. The post-treatment questionnaire aimed at gathering information about students' perceptions towards using web 2.0 to develop their writing skill (See appendix). In view of this, to answer this research question, descriptive statistics were used namely, the percentage, the frequency, the mean, and the SD. This questionnaire comprised 18 items in total and all based on a yes/no scale, implying, therefore, a nominal scale of measurement in which they took the values 1 and 0 respectively.

4.1.8.1. The Post-treatment Questionnaire Results.

Table 4.53

Descriptive statistics for students' perceptions of integrating web 2.0 technology into classroom learning to develop the writing skill

Statements	Number	%	Mean	SD
I liked learning with a computer	30	100	1.000	.000
The web 2.0 (wiki) allowed me to work at my own pace	30	100	1.000	.000
I enjoyed writing using the wiki to develop my writing skill	30	100	1.000	.000
Web 2.0 (Wiki) is an effective way of teaching writing in English	30	100	1.000	.000
Web 2.0 (Wiki) could improve the quality of academic writing	30	100	1.000	.000
Web 2.0 (Wiki) motivated me into more active, interactive writing	30	100	1.000	.000
Compared to classroom writing, I can see all my peers' writing	30	100	1.000	.000
I felt at ease when I wrote online using web 2.0 (wiki)	30	100	1.000	.000
Web 2.0 (Wiki) is motivating for me to write	30	100	1.000	.000
Web 2.0 (Wiki) allowed me to easily interact with my teacher and peers	30	100	1.000	.000
Web 2.0 (Wiki) allowed me to exchange ideas about writing with my teacher	30	100	1.000	.000
Web 2.0 (Wiki) helped me in revising my paragraph	30	100	1.000	.000
The revision stage is easier using web 2.0 (wiki) than in the classroom	30	100	1.000	.000
The editing stage is easier and clearer on web 2.0 (wiki) than in the classroom	30	100	1.000	.000
The flexibility of writing online via web 2.0 (wiki) helped me write better without time constraints	30	100	1.000	.000
The flexibility of commenting on each other's work via web 2.0 (wiki) helped	30	100	1.000	.000
The flexibility of commenting in the wiki helped write better	30	100	1.000	.000
My paragraph writing skills were improved by using web 2.0 (wiki)	30	100	1.000	.000

An interesting finding in the post-treatment questionnaire, investigating students' perceptions of using web 2.0 to develop their writing, was that participants' responses (n=30) to the 18 questionnaire items were 100% "yes", giving a mean of 1.00 and SD=.000 as shown in table 4.53. The SD is all .000 because all students' answers were the same, that is to say "yes", resulting in no deviation from the mean which is also the same. This was adequate evidence that the participants appreciated writing with web 2.0.

To start with, items 1, 2, 3, and 4 revealed students' perceptions of working with a computer and using web 2.0 tools. In view of this, all students 100% (n=30) believed that they liked working with a computer, they enjoyed using the wiki to practice writing, wiki is an effective tool to teach writing, and that it can develop academic writing. As for the affordances of web 2.0 tools, they included 12 items, ranging from item 5 to 16, all students 100% (n=30) thought that the wiki allowed them to work at their own pace, motivated them into more active and interactive writing, allowed them to constantly see their peers' writings, made them at ease when they wrote, allowed them to easily interact and exchange ideas about writing with the teacher and peers, and gave them more chance to practice writing. Moreover, all students 100% (N=30) thought that the wiki was mostly helpful in the revision and editing stages as clearly shown in table for items 16 and 17. Finally, all students 100% (N=30) answered "yes" to item 18 which says that their paragraph writing skills were improved by using the wiki.

4.1.8.2. Interview Findings and Analysis.

As beforehand mentioned in the methodology chapter, the interview was not a primary source of data as it is the case with the tests and questionnaires. Students' interviews were rather conducted to provide supportive and detailed information about students' attitudes towards and perceptions of using web 2.0 to develop their writing skill. Thus, it is noteworthy that the findings of the interview answer research question 5 which says: What

are students' perceptions of integrating web 2.0 into classroom learning to develop their writing skill?

Category 1: The perceived usefulness of web 2.0 integration to develop writing

If there was one opinion that all five interviewees shared, it was that web 2.0 integration was helpful and useful. They were prone to appreciate the use of technology to develop their learning as they were already accustomed to technology in their daily lives using the myriad of applications available on the internet. This idea was clearly expressed by student D who said:

“Integrating technology into the classroom was a very good idea...I think it is very useful for us as learners of English especially that we are somehow addicted to internet...so relating studies to technology affects learning positively”.

This same idea was held by another student who believed that:

“Technology is very useful to be integrated in the classroom as it gives more opportunities to different learners” (Student B), and that “it is very beneficial as because it facilitates classroom learning and gives another sense...learning is not boring like before” (Student E). Student A thought that technology integration “is not only very useful and helpful, but at the same time enjoyable”

As for student C, *“technology integration into the classroom is a good way of assessing students...I mean it helps to edit content and facilitates feedback which is easily and quickly provided and received...teacher can evaluate how we are doing online after we study in class”.*

Category 2: A positive learning experience with web 2.0 technology

In sharing their experience with web 2.0 technology and wiki writing, all five interviewees confirmed it was a helpful and positive experience and it helped to improve their writing ultimately. For example, student A said *“I do believe that I had a helpful and wonderful experience with wiki writing because it helped me to overcome my writing difficulties as well as to enjoy while writing...I think it is a good idea to use web 2.0 tools in the writing class”*.

Student C, D, and E claimed that their experience with wiki was positive and fruitful resulting in better writing.

To elaborate, student C stated *“my experience with wiki was very helpful and it permitted me to write easily”*, student D said *“my experience with wiki was very positive and helpful because I felt that my writing skill became better than before”*, and student E also said *“my experience with wiki was helpful and very positive...it gave me the opportunity to show my writing skills”*

Category 3: Affordances of wiki as a writing tool

When asked about their most appreciated affordance of web 2.0 tool (the wiki), the five interviewees accounted for different answers. Due to the large class size we have in the English language and literature department, assessing students is always challenging because of time constraints. Also, time is more at stake in the writing class where the process approach to writing is followed requiring students to draft multiply after they receive feedback and revise their drafts. In the same vein, student A believed that:

“Gaining time was the most helpful thing that web 2.0 tool (wiki) has offered me... that is to say, it was easy to write and quickly to have feedback”

Student C stated that *“what I liked most about wiki is that it facilitated interaction and collaboration with peers and teacher”*

Student D said that *“what is special about web 2.0 tool (wiki) is that it can be accessed by all students whenever they need easily...at the same time, students can interact with each other and with the teacher even outside class time...also revising our paragraphs is much easier”*.

The same idea was held by student E who assured that *“interaction is easier with teacher and peers... also, we gain a lot of time when we write...I do not have to hurry up to finish my paragraph like in class...I write at my own pace”*

Student B referred to the clarity of the teacher’s written corrective feedback and the ease of correction by stating that: *“in the wiki, I appreciated mostly that I can easily check my teacher’s feedback which is understood and clear as the paragraphs were corrected by highlighting the error with a different color...I can see the error I made then I can correct it easily*

Category 4: Perceived contribution of wiki to develop writing

Web 2.0 tools such as the wiki allow at once for keeping a record of students’ writings and an interactional setting par excellence where students can exchange their ideas on writing. With reference to wiki contribution to develop their writing, all five interviewees confirmed its role in so doing. As a good case in point, student A stated that:

“I think wiki has greatly contributed to improve my writing skill where I took all my teacher’s feedback and comments into consideration and made me aware of my weaknesses”

Student B said *“wiki enhanced my writing and made me overcome my writing fear and difficulties”*

Also, *“I think wiki contributed to the development of my writing skill as I received enough feedback from my teacher which helped my paragraph improvement”*, student C stated.

Student D answer was no difference from the others as he said that:

“The wiki contributed to my writing in a huge way because the feedback I received was beneficial for me, as I tried each time to correct my errors to enhance my writing”

Category 5: The ability of wiki to develop the different aspects of writing

In order to gain more insights about how wiki contributed to students' writing development, students were asked to specify the particular aspect (s) of writing that wiki helped developing. Students' answers ranged between aspects related to form and others related to content. On the one hand, students A and B reported that wiki helped them develop aspects related to form saying:

“wiki helped me to improve grammar and punctuation mistakes as well as sentence problems such as fragments and run-ons as I used to do a lot of sentence errors” (student A)

“Wiki helped me to reduce grammatical mistakes and punctuation mistakes... I had a very big problem with punctuation before” (student B).

On the other hand, student E stated that wiki helped her improve aspects of writing related to content by saying:

“when I started writing on the wiki, I learnt how link ideas and have a coherent piece of writing... I was not able to write coherently before, but now my teacher corrects my paragraphs and shows me that I lack coherence, so I learnt how to do it”

With regards to students C and D, they stated that wiki writing helped them to develop at once form and content.

“wiki helped me in grammar, and also to achieve coherence and cohesion of the paragraph”(Student C).

“I learnt to respect the norms of paragraph writing in terms of form... that is I always indent, capitalize and punctuate correctly. Also, the content of my paragraph improved as I knew how to write a unified and coherent paragraph” (Student D).

Category 6: Reasons to appreciate wiki writing over classroom writing

Web 2.0 tools may be leveraged to promote students’ writing both, when integrated into classroom learning or when used alone. To gain understanding of students’ reception of wiki effectiveness in developing writing, students were asked to argue how effective wiki writing was compared to classroom writing. With regards to this issue, all five interviewees accredited more effectiveness to wiki writing than to classroom writing by providing assets to the former and incommunities to the latter, by contrast. To exemplify, student A said:

“The wiki writing was very effective compared to classroom writing because of the class size, that is to say, a lot of students in the classroom but only a few had the chance to read their pieces of writing and be corrected...in addition, in the classroom, the teacher cannot see your mistakes as you read. However, in the wiki, the teacher analyses every single

word...and also, the time in the classroom was never sufficient to correct everyone anole, but in the wiki, the teacher corrects many students in a short time”

In the same vein, student B stated that *“writing in the wiki is more effective because everyone got a chance to write and receive feedback unlike classroom writing”*

Student C said *“wiki writing is incomparable with classroom writing because in the classroom we lack opportunities because of time constraints, but wiki made writing easy and quick...we can receive feedback anywhere and anytime...it is also more helpful especially fo shy students”*.

Student D stated that *“wiki gave me more opportunities to write and interact with my teacher and peer, and also, to receive my teacher’s feedback unlike the classroom where I rarely had the chance to be corrected because of class size”*

Student E similarly said that *“wiki is more effective as it gave my paragraphs more opportunities to be corrected by the teacher because the time allocated in the classroom did not provide all of us such an opportunity to participate and be heard each time”*.

4.2. Discussion of the Findings

This chapter is amplified by insights and findings from research on EFL writing and Web 2.0 technologies. It presents and discusses the findings as related to the five research questions guiding this study which are as follows:

- 1) What are students’ writing perceptions and difficulties?
- 2) Would students who are involved in web 2.0 writing produce better paragraphs than students who are not?

- 3) What are students' perceptions of writing and feedback before and after the involvement in web 2.0 technology?
- 4) To what extent did students' writing decrease after the involvement in wiki writing?
- 5) What are students' perceptions of integrating web 2.0 into classroom learning to develop the writing skill?

The results of the study were obtained from the students' pre-test and post-test scores, responses to the three questionnaires, responses to the interview, and the analysis of the corpus of students' paragraphs as presented in the previous chapter. Different hypotheses were developed to help answer the research questions.

4.2.1. Discussion of Research Question 1: What are Students' Writing Perceptions and Difficulties?

On the basis of the findings of the first research question presented in chapter three, a synthesis can be made about students' writing perceptions and difficulties. Students considered writing to be the most difficult and complex skill, yet the most important among the other three language skills. Moreover, such impediments as lacking confidence and the necessary skills were perceived to be behind writing difficulty. As for the skills needed to write effectively, students thought that lack of ideas generation, lack of ideas organization, limited grammar knowledge, limited vocabulary, and mechanics problems are all areas of difficulty that hinder them from writing.

Another conclusion that would be made about students' writing perceptions and difficulties is that students viewed form highly, in comparison to content which was considered secondary for them. A possible justification for this perception is that teachers

put more emphasis on form and neglect content when providing feedback to students' writing.

Furthermore, students thought that extraneous factors, not related to the language per se, such as time constraints and overcrowded classes are also impediments for them to practice and develop writing.

As a result, writing is perceived a difficult skill that demands the mastery of certain linguistic aspects such as grammar, vocabulary, and mechanics as well as control over rhetorical aspects. For this reason, writing requires effort, time, patience, and persistence on the part of teachers and learners alike for its development.

4.2.2. Discussion of Research Question 2: Would Students who are Involved in web 2.0 Writing Produce better Paragraphs than Students who are not Involved in Web 2.0 Writing?

The results of research question 2 worked towards the confirmation or rejection of Hypotheses 1, 2, and 3 respectively. Students in the control group and the experimental group were assigned to write paragraphs in the pretest and paragraphs in the posttest to which they were given scores. The hypotheses were tested through comparing. The scores of the CG and the EG participants on the writing performance tests before and after the quasi-experiment were compared. Likewise, a comparison was made between the scores of the writing performance test for the CG and the EG after the quasi-experiment. These comparisons gave the following results. The study findings revealed that there were significant differences at the significance level less than ($\alpha < 0.05$) in the mean scores of the test in the experimental group after the involvement in web 2.0 writing. The findings also pointed out that there were no statistically significant differences where the level of significance is greater than ($\alpha > 0.05$) in the control group's paragraph writing. Also,

statistical findings showed a statistically significant difference between the experimental and the control groups in the posttest, in favor of the experimental group. A summary and interpretation is provided to each sub-question thoroughly.

4.2.2.1. Pretest and posttest scores for the experimental group.

After testing the hypothesis that “there will be a significant difference in paragraph writing of students in the experimental group between the pretest and the posttest”, the results indicated that the difference was highly significant where improvements were noticed in students writing skill, and thus, leading to the confirmation of the alternative hypothesis and the rejection of the null. To elaborate, after the involvement in web 2.0 writing, students were able to write effective paragraphs with more relevant and adequate support, leaving no room for irrelevant ideas. Also, they were able to write more organised paragraphs in which the ideas were coherently and cohesively linked in an appropriate rhetorical pattern, and used the appropriate cohesive devices. In addition to content, the form of students’ paragraphs has equally improved; grammatical mistakes related to verb tenses and form, agreements, and articles decreased in number. Also, vocabulary has improved as students paid more attention to using appropriate words and collocations and also to appropriate word class. Mechanics have improved as students made fewer errors in spelling, punctuation, capitalization, and format.

A comparison between the pretest and posttest means of the experimental groups has shown that the most evident effect on paragraph writing was on mechanics followed by grammar while the least evident effect was on content followed by vocabulary. These findings suggest that there was more focus on form over content even after the involvement in web 2.0; students continued to show inability to correct some errors related to content or vocabulary after the teacher’s CF which is done in the revision stage. This

could be related to students' poor vocabulary repertoire and lack of ideas. Thus, students can do extra reading activities to enlarge their vocabulary and ideas repertoire.

The results of this study, thus, correspond to the findings of Kuteeva (2011) which concluded that using wikis makes the students consider their audience, thereby increasing attention to linguistic accuracy in academic writing. Thus, in her study, the participants reported that writing on the wiki encouraged them to produce more reader-oriented and grammatically correct texts.

4.2.2.2. Pretest and posttest scores for the control group.

As for the control group, a comparison between the pretest and posttest mean scores revealed no significant difference, and thus, disconfirming the alternative hypothesis that "there will be a significant difference in paragraph writing of students in the control group between the pretest and the posttest". Students in the control group showed no overall writing achievements in content, vocabulary, and mechanics; however, they showed developments in organization and grammar. The mean differences between the pretest and posttest paragraphs of students in the control group revealed that the least significant improvement was in vocabulary, followed by mechanics then content. For the positive effects, students in the control group showed more improvements on organization and grammar. Two interpretations for this is that students may have found organization to be easy to be applied into their paragraphs by following certain guidelines, and also because of the grammar windows which were regularly opened by the teacher in class to remind students of grammatical rules at word and sentence level.

4.2.2.3. Comparing posttest scores for the experimental and the control group.

The study results showed a significant difference between the experimental group and the control group in terms of writing development, and therefore, confirming the

hypothesis that “there will be a significant difference between the experimental group and the experimental group writing in the posttest”. Students in the experimental group had shown improvements in the five aspects of writing while student in the control group have shown improvements only on grammar and organization and no improvements on content, vocabulary, and mechanics. Nevertheless, the experimental group had improved more than the control group in all the five aspects even though the control group has shown improvements in organization and grammar. These results imply that writing on the web 2.0 platform had contributed to the development of students’ writing skill in all areas, though more particularly in aspects related to form which suggests that students are more apt to notice CF which is targeted to form-related errors and not content-related errors. This finding is in sharp contrast with a study conducted by Kessler’s (2009) which indicates that NNS, EFL teacher candidates gave more attention to the content when editing, although they were encouraged to focus on language accuracy while writing and revising their own and others’ texts.

To conclude, the results of the first research question added more insight to the existing literature on the efficacy of web 2.0 tools in enhancing the writing skill. As a good case in point Ramirez (2013) found that web 2.0 enabled learners to improve specific aspects of their writing; they became more aware of using grammatical structures, improved their vocabulary and the attempted to write more complex sentences. Also, learners reflect on the language, content and create meaning.

Comparing the paragraphs of the posttest of both groups, it was evident that the paragraphs of students who were involved in web 2.0 were more effective in terms of including relevant and adequate support, connecting the ideas with appropriate devices according to an well-suited pattern of organization, use more correct grammar and sentence structures, used more appropriate words and word class, and used punctuation correctly with less spelling, capitalization and format errors.

These findings are in line with Amir, Ismail, & Hussin (2011) who investigated a web 2.0, which was blog, in maximizing students' collaborative writing, and found that students' vocabulary usage increased along with general knowledge. In their study, students' knowledge about writing increased as did their motivation, interest, and confidence in writing. More importantly, students' writing skills improved in terms of grammar as they realized their grammatical mistakes through the comments given by their teacher and peers which acted as a reminder for them not to repeat the same mistakes again. However, the last finding was in contrast to this study finding in that students in Amir et al., (2011) were more engaged in fluency rather than accuracy by focusing more on meaning and content rather than form.

4.2.3. Discussion of Research Question 3: What are Students' Perceptions towards Writing and CF before and after the Involvement in Web 2.0?

This research question aimed at eliciting students' perceptions towards writing and CF before (traditional writing) and after (online writing) the involvement in web 2.0. It should be noted that the questionnaire used to answer this research question adopted a 5-point Likert scale, asking students to choose an answer ranging from 1=strongly agree to 5=strongly disagree. Using a pre- and post-test design before and after the integration of web 2.0, students' perceptions were evaluated to see whether they have changed. Students' perceptions are crucial because they play a role in motivation, selection of learning strategies, and learning in general (Fox, 1993; Kern, 1995).

The results of the study concerning this research question indicated a highly significant difference between the pre-test and post-test responses of students in the experimental group to all the statements of the questionnaire, with a total mean difference of $\alpha = 2.45$. In the first three items (1,2,3) of the questionnaire, students' perceptions towards writing

changed positively as students considered going through all the stages of the writing process to be accomplishable, and viewed time to be no longer an obstacle to practice adequately. Additionally, results showed that students' perceptions of CF had changed to the better in where comparison between the pre- and posttest of the statement (4, 5, 6, 7, 8, 9, and 10) revealed highly significant differences in students' perceptions. The results, therefore, confirmed the hypothesis that "the pre- and posttest responses of students in the experimental group in the perceptions towards writing and CF will be significantly different before and after the involvement in web 2.0".

This finding suggests that students' perceptions have changed to be more positive in the posttest than in the pretest. In view of online CF, the finding of this study corroborates the work of such studies as Khampusaen (2012) who found that students' perceptions towards writing improved after being involved in blog writing, feedback increased their motivation to write, and their writing improved as a result of receiving teacher's online CF. The finding of this study is equally certified by Drexler, Dawson, & Ferdig's study (2007) which revealed that students attitudes towards writing improved as it was seen as a purpose; the feedback that was provided motivated students to write , and the quality and quantity of students' writing has significantly increased.

4.2.4. Discussion of Research Question 4: To what Extent did Students' Writing Errors Decrease after the involvement in wiki writing?

A qualitative corpus analysis of students' paragraphs was used to answer this research question. Findings revealed that students' errors decreased after the integration of the wiki and receiving the teacher's online corrective feedback on their errors. These improvements were noticed in different aspects of writing, but mostly apparent in aspects related to form such as grammar and mechanics despite that the teacher's CF was directed towards form and content simultaneously. The CF, which was direct and metalinguistic,

seemed to affect learners' writing positively because learners did not notice their errors, and correcting these errors by the teacher helped learners notice and avoid making them in future writing. These findings are in sharp contrast with Truscott's claims (1996; 2004) that error correction on students written products is not only ineffective and unnecessary but 'harmful'. He also neglects students' willingness to receive CF on all errors they make. This study's finding, nevertheless, support other related studies investigating the effectiveness of CF such as Ferris (1997), Sachs & Polio (2007), Chandler (2003), Bitchner et al., (2005), and Van Beuningen et al., (2012) as previously detailed in the chapter of literature review. In terms of the effectiveness of online CF, the results of this study resonated with the findings from previous studies such as the one conducted by Kang and Han (2015) who concluded that written corrective feedback (WCF) can lead to greater grammar accuracy in second language writing. More importantly, Shintan & Aubrey (2016) conducted research on WCF by investigating how using CF affects grammar acquisition with 68 intermediate students of English at a university in Japan. Students completed writing tasks using Google Docs as a web 2.0. The results showed that both groups receiving synchronous and asynchronous CF improved from the pretest to the two posttests (delayed and immediate) while the comparison group did not.

4.2.5. Discussion of Research Question 5: What are Students' Perceptions of Integrating Web 2.0 into Classroom Learning to Develop the Writing Skill?

This research question was answered by means of a post-treatment questionnaire whose answers were more elaborated by interview answers. Perceptions of students in the experimental group towards using web 2.0 to enhance writing were collected to evaluate their experience with working with the wiki. The results revealed that students' answers to the questionnaire items as well as to the interview were entirely positive reflecting students' positive attitudes and successful writing experience with web 2.0 technology

which is in accordance with most existing literature about students' perceptions of web 2.0. All students reported enjoying learning with the computer and web 2.0 in particular which they considered as effective tools to develop the writing skill, arguing that their overall paragraph writing has improved. One possible interpretation that students' perceptions were positive to all items is being "digital natives"; using technology is one common daily practice for them. Thus, learning with something they already use would be positively perceived.

The results of this research question in this current study is in concordant with Woo, Chu, Ho, & Li (2011) who found that the use of wiki was perceived positively in that students enjoyed using the wiki which they believed has improved their writing. Thanks to its tracking functionality, the wiki gave in depth information about the revisions students were making and helped the teacher to provide necessary feedback. Similarly, in Lin, Groom, & Lin study (2013) reported that participants described the web 2.0 blog-assisted language learning as an original, convenient, and refreshingly informal alternative to the traditional ESL writing classroom. Additionally, they felt enthusiastic about incorporating it into future classes. Besides, students in this study seemed to value the affordances web 2.0 tools can provide. Students were highly positive that writing with web 2.0 was a motivator to write better and a facilitator of learning and interaction with teacher. The flexibility of the web 2.0 tool, the wiki was highly appreciated as students felt free when writing, working on their own pace without time constraints, especially when revising and editing, along with practicing adequately. This is also in line with Fageeh (2011) who investigated the use of blog with 25 fourth year intermediate EFL college writing class and its effect on developing positive attitudes towards writing. Students believed that blog developed their proficiency and positively changed their attitudes towards writing.

Conclusion

The results presented in this chapter were based mainly on the analyses of quantitative data, which was comprised of the students' pre-test and post-test scores and their responses to the three questionnaires. Additionally, qualitative data obtained from the interview responses and the analysis of the corpus was also provided. The major findings indicated that students in the experimental group improved their writing skill in terms of content, organization, grammar, vocabulary, and mechanics after being involved in web 2.0 writing. As for the control group no significant differences were noticed in their writing except for organization. Significant differences were found between the experimental group and the control group in the posttest in the beforehand mentioned writing aspects. Moreover, the perceptions of the students towards writing and feedback had also changed after their involvement in web 2.0 writing. The participants' overall perceptions of web 2.0 in the post project questionnaire were all positive. In the discussion and conclusion chapter, the findings of the study are discussed in some detail, pedagogical implications for teachers and learners are highlighted, recommendations for future research are presented, and limitations of the study are stated.



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CHAPTER FIVE

RECOMMENDATIONS, LIMITATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

Introduction

This chapter is the concluding chapter to the study. It encompasses different sections namely: discussion of the results of the study, recommendations for both teachers and learners, implications for future research, and limitations of the study. The core issue of this research was to investigate the effect of web 2.0 technologies, namely the wiki, as integrated into classroom learning, in developing the writing skill. In other words, it investigated whether students writing improved after the integration of web 2.0 technologies into classroom learning.

5.1. Summary of the Main Findings

In this study, the effect of web 2.0 integration in developing the writing skill was investigated. A quasi-experimental one-group pretest-posttest design was used to investigate the extent to which the integration of web 2.0 tool, the wiki, can result in a more developed writing. The participants of this study were 65 second year students of English in the English Language and Literature Department, Setif 2 University. Students in the CG and EG groups took the writing performance test before and after the experiment. Further, both scores of the tests were measured statistically to cater for a comparison between students in both groups and thus enable for statistically-based deductions.

In the preliminary phase, students in the EG (N=30) were administered a questionnaire prior to the experiment to diagnose their writing perceptions and difficulties. The results

reported that writing was perceived to be the most difficult skill. Also, problems in such aspects as lack of generating and organizing ideas, limited grammar knowledge and vocabulary, and mechanics were reported by students as hurdles preventing them from writing effectively. This preliminary phase confirmed students' lack of the necessary writing conventions.

The quasi-experimental study integrated web 2.0 in the form of wiki into traditional classroom learning with the aim of developing the writing skill. In hypothesis 1, it was found that the EG students who have written using the wiki along with traditional writing had significant differences in their scores in the posttest. This significant difference was similarly noticed in content, organization, grammar, vocabulary, and mechanics. These results confirmed that the integration of web 2.0 tool, the wiki, can develop the overall writing skill. Furthermore, in hypothesis 2 no significant differences were found in the scores of the CG in the post writing performance test. For hypothesis 3, the comparison of the scores on the writing performance test of the CG and the EG participants at the end of the quasi-experiment revealed a significant development in the writing skill of EG students as confirmed by the high significance of $p= 0.000$. The same situation holds true for content, grammar, vocabulary, and mechanics.

For hypothesis 4, the obtained results proved a significant difference in students' answers to the questionnaire items about writing and feedback before and after the quasi-experiment as confirmed through the high significant paired samples t-test $p=.000$ which suggests a change in students' perceptions towards writing and feedback.

For research question 3, the analysis of students' corpus of paragraphs produced in the pretest and posttest and the interval period on the wiki platform indicated an error decrease in all features particularly in grammar and mechanics and thus, suggests improvements in students' overall writing skill.

As about research question 5, students' perceptions of the integration of web 2.0 tool, the wiki, was reported positively; students reported a positive helpful experience with wiki writing. They also ascribed multiple affordances to this tool, which helped in developing their overall writing skill particularly in grammar and mechanics.

5.2. Recommendations

This study aimed at investigating the effects of integrating web 2.0 in developing students' writing skill. The study findings gave rise to pedagogical implications related to technology integration and use. For instructional design purposes, stake holders, decision makers, curriculum designers, and teachers should consider technology integration in instruction for optimal benefit as it has proven to be effective in enhancing learning. However, there should be adequate training on ICTs in the first place and web 2.0 applications in particular to better understand how new technological tools work or how they should be successfully integrated into the classroom especially that the students this generation students are digital natives. With particular reference to web 2.0 tools, teachers are requested to integrate them into their classrooms to teach the different subjects given their multiple affordances such as: low cost, ubiquity, accessibility, and ease of use. Teachers of writing may consider using wikis to teach writing and enhance their students' writing skill as it can be flexibly integrated. It should be noted, however, that the wiki is not conclusively the only acclaimed web 2.0 applications to be effective. Other tools can be used depending on the objectives and nature of the subject taught.

This generation learners are undoubtedly digital savvy; they have an easy and increased access to technology and smart phones. However, raising their awareness about these applications' importance and effectiveness is recommended through incorporating a technology course in the curriculum which relates technology to education and does not merely deal with basic ICT knowledge. Given the functionalities of web 2.0 in terms of

content creation and sharing, as well as collaboration, teachers can maximally harness new technology to develop learning and autonomy. In addition students should be explicitly taught skills of wikis to facilitate learning through these tools. Also, students can benefit from the comment option these tools can offer to provide peer feedback through online interaction. Students can create a class blog or wiki where they can practice writing both individually and collaboratively, and at the same time exchange ideas and correct each other's writings.

Decision makers should seriously consider technology integration in the form of blended learning, online leaning, or distance learning so that they solve problems of overcrowded classes, geographical issues, and working learners. Technology provides plentiful opportunities and thus caters for lifelong learning. According, more facilitation and incentives are needed to facilitate technology integration as modern time learning is globally redefined, urging for a rapid and urgent change in the teachers attitudes towards technology along with their classroom practices, and on the other hand, to keep track with the global instructional developments.

5.3. Limitations of the Study

Although the research has accomplished its objective, it has some inevitable limitations which should be acknowledged. To start with, in terms of sample size, this study was limited only to one group (n=65) of second year students of English in the Department of English Language and Literature at Mohamed Lamine Debbaguine, Setif 2 Univerity; The control group consisted of (n=35) and the experimental group (n=30). Conducted with more groups, the study's results could be applicable and generalized. In the same vein, the study confined itself to one English department in one university. Therefore, the results again cannot be overgeneralised to other universities.

In addition, another limitation in this study appears to be with the research setting; given the fact that no access was possible to the department language laboratory because of the limited number of seats and overcrowded classes. Thus, the study did not take place in this laboratory; web 2.0 learning was done by students in their proper homes.

One limitation can be attributed to the sampling procedure which was convenient; in other words, the groups chosen were intact groups that had been assigned by the administration. As a result, random sampling was not possible. Not only does this affect the results of the study but also their generalisability to other groups.

In view of the web 2.0 applications adopted in the study, it was only one tool which is the wiki. Using or combining other web 2.0 tools may reveal different results.

With regard to the time of the experiment, it lasted for 15 weeks. This time may not be enough to cast a change in students' writing or to improve all the aspects of writing. It would have been better if it was conducted in a longer time.

As for the assessment of the pre- and posttest paragraphs, they were corrected by the researcher herself because of the unavailability of a co-rater who was willing to assess using an analytical scale which is time consuming. In other words, inter-rater reliability was lacking, and thus, some degree s of subjectivity may be found.

It should be noted that only few students showed readiness and willingness to comment on each others' paragraphs on wiki platform because they lacked trust in peer feedback; therefore, only on the teacher's feedback was taken into consideration.

5.4. Suggestions for Further Research

This study sought to investigate the effect of web 2.0 technology integration on developing students' writing skill. On the basis of the results of this study, some recommendations can be suggested for future research.

- As web 2.0 is considered a novel and under-researched area in Algeria, conducting more research on it is required by Algerian researchers to investigate its effectiveness in enhancing learning in general and writing in particular in order to generate an in depth understanding of this technology.
- Although the study was conducted with a small number of participants (N=30), it provided evidence for the effectiveness of web 2.0 integration in developing students' writing skill. Nonetheless, if replicated with a sufficient number of participants, similar future studies can disclose results which can be more representative of the whole population.
- This study was based on a mixed ability group where students had different learning styles and strategies. Light can be shed by future research on the correlation between students' learning styles and the use of web 2.0 applications.
- The study was based on the wiki as web 2.0 writing platform; future research can be conducted on other web 2.0 applications to weigh its effectiveness in enhancing learning in a blended learning form. Tools such as podcasts discussion forums, blogs, Google Docs, Google Drive, and social networking tools are worth investigating.
- Gender was not a distinguishing factor as far as this study is concerned; future research can focus on how gender can play a role in yielding different results.
- Despite that the results of this study may be applicable to diverse contexts; there are certainly some students of English or else who are different than the participants of this study in terms linguistic, social, and economic aspects. Replicating this study with

other groups of students of English from other departments in Algerian universities would enhance the conclusions of this study.

- Most studies in the literature about web 2.0, and this study is no exception, have focused on L2 or FL learners of English. Research should transcend to focus on learners' mother tongue or SL and FL learners of other languages. Researching a variety of language backgrounds and contexts may generate richer data and results.
- The study lasted for 15 weeks; future research may consider conducting a similar study in a longer time, say for example, a whole academic year with the purpose of obtaining more significant results of the effects of web 2.0. Conducting the study in a long time would familiarize learners more with web 2.0 tools, and thus bring better results.
- This study's main focus was the writing skill; future research can crystallize how other language skills can be taught and enhanced by web 2.0 applications. More importantly, further research in Algeria can elucidate the effectiveness of web 2.0 tools in accordance with learners L1 writing (Arabic) writing, or draw a comparative study between the learners L2 and FL writing to examine which language writing can be more enhanced, L1 writing or FL writing.

Conclusion

This research investigated the impact of using web 2.0 to improve students' writing skills. It embraced as a theoretical basis constructivism and socio-constructivism, where the learner plays a vital and active role in the learning process. In relation to constructivism, Web 2.0 learning is in strong connections with the theories' principles and is highly relevant because it portrays a shift from being a median of delivering knowledge to a median of creating this knowledge. As such, it proved to be useful and effective in developing the writing skill, and it is in line with the results of this study which showed that web 2.0 was beneficial in developing the writing skill. The attitudes and perceptions



of students have also changed towards writing about which they showed positive attitudes after the engagement in web 2.0 writing. Also, online feedback, provided via the wiki, has proven effective in reducing students' writing errors, and thus improving their writing skill.

General Conclusion

This study was conducted to investigate the effect of web 2.0 technology, the wiki, in developing the writing skill. The study followed a quasi-experimental one-group pretest-posttest design. A preliminary phase preceded the quasi-experimental phase in the purpose of diagnosing students' writing perception and difficulties which was paramount to aid launch the experiment. The quasi-experiment of the study followed to examine the extent to which the integration of web 2.0 and using wiki as an online writing platform can help develop students' writing. The participants of the study were 65 second year students of English in the English Language and Language Department, Setif 2 University divided administratively into two intact groups and used by the researcher as control and experimental groups. The entrance questionnaire, the wiki site, the pre and post writing performance tests, the pretest and posttest questionnaire, the interview, and the post-treatment questionnaire were the research instruments used to collect quantitative and qualitative data in the current study. To test the hypotheses stated and analyze the questionnaires, the SPSS software 22.0 version was used to generate both descriptive in terms of mean, standard deviation, frequency, percentage, and inferential statistics in terms of paired and independent samples t-test at $p \leq 0.05$ levels. As regards the corpus analysis and the interview, thematic qualitative analysis was carried out.

The results of research question 1 revealed writing was perceived to be the most difficult skill for students as students had difficulties in ideas generation and organization, limited grammar knowledge, vocabulary, and mechanics. These results helped to provide a ground and rationale for the present study. The results of the quasi-experimental study revealed significant differences between the scores of the EG before and after the experiment after being involved in web 2.0, wiki writing. Moreover, significant differences were found between the scores of the CG and the EG on the writing performance test in the

post test. The findings of the corpus analysis of students' paragraphs revealed a decrease in students' writing errors and thus marked a development in the different writing aspects particularly grammar and mechanics. These results were yielded after comparing their paragraphs before and after the quasi-experiment as well as the paragraphs produced in the interval period on the wiki site. In addition, significant differences were found between answers of EG students in the pretest-posttest questionnaire about writing and feedback before and after the integration of web 2.0, the wiki. Finally, students' answers to the post-treatment questionnaire and interview revealed that students had positive experience writing with the wiki which they thought has developed their writing skill. On the basis of the obtained results, the present study recommends the integration of web 2.0, the wiki into classroom learning to develop the writing skill, and also suggests that other web 2.0 tools can be used in future research to investigate their effectiveness in developing writing and other language skills.

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APPENDICES

APPENDIX A

The Entrance Questionnaire

Students' Writing difficulties and computer literacy

Dear students,

Thank you for accepting to participate in this important questionnaire measuring your writing difficulties, feedback practices, and perceptions of using technology to improve the writing skill. Your thoughts and opinion will help us understand your writing difficulties and thus improve the writing skill. This questionnaire will take only 5 to 10 minutes to complete. Be assured that all the answers you provide will be kept in the strictest confidentiality as the responses will be anonymous.

Section 1: Demographic Information

- 1) Your Gender: Male Female
- 2) Your Age: Between 18-21 21-25 more then 25
- 3) For how many years total have you studied English? 0-5 5-7 more than 7

Section 2: Students' Computer knowledge

- 1) Do you have a computer? yes no
- 2) Do you use the internet? yes no
- 3) Do you have the internet home? yes no
- 4) How long have you been using the internet? yes no
- 5) How often do you use the internet? yes no
- 6) How would you rate your computer literacy?
- a. weak
- b. good
- c. very good
- d. excellent
- 7) Do you think internet knowledge is essential for students? yes no
- 8) Do you think online tools and applications are helpful to enhance learning? yes no



9) Do you know web 2.0 technology? yes no

10) Do you know the wiki? yes no

11) Have you ever used it before? yes no

Section 3: Students' Perceptions of Writing in English and their Writing Problems

1) The most important skill among the four skills is:

a. Reading

b. Writing

c. Listening

d. Speaking

2) The most difficult and complex skill among the four skills is:

a. Reading

b. Writing

c. Listening

d. Speaking

3) I do not write in English because writing is difficult yes no

4) I am not confident to write in English because my English is not very good yes no

5) I do not write in English because I lack the necessary skills yes no

6) I do not write in English because: (you may tick more than one)

a. I cannot generate ideas

b. I have a limited vocabulary and I cannot use appropriate words and expressions

c. I have limited grammar knowledge

d. I have problems with mechanics (spelling, punctuation, capitalization)

7) the most important aspect about writing is:

a. form

b. content

8) I do not practice enough because of time constraints yes no



9) Overcrowded classes prevent me from benefiting from the teacher's feedback yes no

10) Time constraints prevent me from benefiting from the teacher's feedback yes no

APPENDIX B

Students' Perceptions of Writing and Feedback Questionnaire

In all the items, you are requested to choose from the 5 likert scale ranging from strongly agree to strongly disagree, in which:

1= strongly agree 2= agree 3= undecided 4= disagree 5= strongly disagree

- | | | | | | |
|--|---|---|---|---|---|
| 1) I make many errors when I write | 1 | 2 | 3 | 4 | 5 |
| 2) I am afraid to read my writing in front of my peers | 1 | 2 | 3 | 4 | 5 |
| 3) It is embarrassing to receive corrective feedback in front of my peers | 1 | 2 | 3 | 4 | 5 |
| 4) I do not ask for the teacher's assistance when I write | 1 | 2 | 3 | 4 | 5 |
| 5) I do not receive adequate feedback on my writing | 1 | 2 | 3 | 4 | 5 |
| 6) I do not benefit from the teacher's corrective feedback | 1 | 2 | 3 | 4 | 5 |
| 7) I do not understand the teacher's corrective feedback | 1 | 2 | 3 | 4 | 5 |
| 8) The teacher does not manage to provide all students with corrective feedback | 1 | 2 | 3 | 4 | 5 |
| 9) I do not receive adequate feedback at the different stages of the writing process | 1 | 2 | 3 | 4 | 5 |
| 10) Feedback on the wiki improved my paragraph writing in terms of content, organization, grammar, vocabulary, and format. | 1 | 2 | 3 | 4 | 5 |

APPENDIX C

The Post-treatment Questionnaire

Dear students,

I would be thankful if you could answer this post-treatment questionnaire related the use of Web 2.0 technology, namely the wiki, in developing your writing skill. You are kindly requested to answer sincerely as the questionnaire will be kept anonymous. Thank you for your cooperation. In all the questionnaire items, you are requested to choose from the 5 likert scale ranging from strongly agree to strongly disagree, in which:

Section 1: Students' Perceptions of Writing with the Wiki

- 1) I liked learning with a compute yes no
- 2) The wiki allowed me to work at my own pace yes no
- 3) I enjoyed writing using the wiki to develop my writing skill yes no
- 4) Wiki is an effective way of teaching writing in English yes no
- 5) Wiki could improve the quality of academic writing yes no
- 6) Wiki motivated me into more active, interactive writing yes no
- 7) Compared to classroom writing, I can see all my peers' writing yes no
in a wiki which is better and more interesting
- 8) I felt at ease when I wrote online using a wiki yes no
- 9) Wiki helped me improve my writing skill yes no
- 10) Wiki is motivating for me to write yes no
- 11) Wiki allowed me to easily interact with my teacher and peers yes no
- 12) Wiki allowed me to learn with my peers yes no
- 13) Wiki allowed me to exchange ideas about writing with my teacher yes no
and peers
- 14) Wiki gave me more chance to practice writing yes no
- 15) Wiki helped me in the revising stage yes no
- 16) The revising stage is easier using the wiki than in the classroom yes no
- 17) The editing stage is easier and clearer on the wiki than in the classroom yes no



18) The felt a sense of satisfaction and achievement about the use of wiki yes no

20) The flexibility of writing online via wiki helped me write better without yes no

time constraints

21) The flexibility of commenting on each other's work via wiki helped yes no

me write better

22) My paragraph writing skills have improved by using wiki yes no

APPENDIX D

Students' Interview

Thank you for participating in this interview (*name*). The information you provide will directly influence the design of courses and programs with respect to the use of Web 2.0 in higher education. This research, as you know, focuses on how integrating web 2.0 technology develops students' writing skill. Via this semi-structured interview, I want to learn about your experiences in using Web 2.0 in all aspects in the writing course and it affected you henceforth.

1. What do you think of integrating technology (web 2.0 technologies) into the classroom to develop your writing?
2. How do you describe your experience with web 2.0? (Helpful, not helpful, positive, negative, etc) and why?
3. What web 2.0 affordance have you appreciated mostly?
4. What have you not appreciated about web 2.0?
5. To what extent has the wiki contributed to minimize some of your writing problems, and hence develop your writing skill?
6. what writing aspect (s) did the wiki help developing mostly?
7. How effective was web 2.0, using the wiki, in developing your writing, compared to classroom writing?

Do you have any questions for me? Is there anything you would like to add? I would like to sincerely thank you for your time and the insightful responses you have provided me today. Please do not hesitate to contact me should you have any questions or concerns or would like to add something to your responses.

Good bye.



APPENDIX E

Paragraph Types and topics Used in the Study

Week 1. The students were asked to write a paragraph using the following prompt:

Education is crucial to individuals in that it provides them with greater jobs opportunities.

Weeks 2 and 3: The students were asked to write process paragraphs as follows: write a paragraph in which you explain the process of doing something.

Weeks 4 and 5: The students were asked to write a comparison and contrast type as follows: Write a comparison paragraph where you compare two things, objects, or people

Weeks 6, 7, and 8: The students were asked to write cause/ effect paragraph guided by the following prompts respectively

- Discuss the effects of parents' pressure on children to obtain good grades/marks.
- Marriages fail due to different reasons. Discuss.
- The causes or the consequences of: child labor,

Weeks 9 and 10: The students were asked to write a problem/solution paragraph as follows: Think about a social, economic, environmental, and educational problem, or otherwise, and try to provide a solution (s) to it.

Week 11, 12, 13, and 14: The students were asked to write argumentative paragraphs on the following prompts respectively, by giving their own arguments.

- Is watching TV advantageous or disadvantageous? Or what do you think of reading books for leisure?
- What do you think are the qualities of a good friend?



- What do you think are the qualities of a good teacher?
- Visiting an English speaking country to learners of English is very beneficial; strategies that can help learners of English improve their English, or the benefits of studying a foreign language (English) is very beneficial.

Week 15: *people choose to study English in university, among a variety of educational fields.*

APPENDIX F

Paragraph assessment rubric: Adapted from Jacobs et al.'s (1981) and Brown's (2007).

Macro Writing Features	Micro Writing features	Score	Performance Criteria	
content	Support <ul style="list-style-type: none"> • Relevance to the topic • Adequacy 	4	A clear topic sentence adequately supported by details which are all relevant to the topic	
		3	A clear topic sentence, mostly details are related, but needs more supporting details.	
		2	Somehow a clear topic sentence, but with irrelevant details, and needs more support.	
		1	No topic sentence, many irrelevant details, and lacks support.	
	Organisation <ul style="list-style-type: none"> • Coherence • Cohesion 	4	Ideas are well organized, clearly stated, logically sequenced, and arranged with appropriate cohesive devices.	
		3	Ideas are loosely organized but main ideas stand out, logical but incomplete sequencing, with almost appropriate cohesive devices.	
		2	Ideas are confused or disconnected, lacks logical sequencing and development, with lack a few misuse of cohesive devices.	
		1	No organization of ideas, not enough to evaluate, with a complete misuse or absence of cohesive devices.	
		Grammar & structure Word-level accuracy : <ul style="list-style-type: none"> • Agreements • Shifts • Verb tense & form • Articles • Pronoun/referent • Prepositions • Pronouns Sentence fluency : <ul style="list-style-type: none"> • effective sentence 	4	Few or no errors of agreement, tense, number, word order/function, articles, pronouns, prepositions, shifts. Etc. Demonstrates consistent variety and complexity of sentence structure. Free of any sentence errors (fragments, run-ons, comma splices).
			3	Minor grammatical problems. Some errors of agreement, tense, number, word order/function, articles, pronouns, prepositions, shifts, but meaning seldom obscured. Demonstrates some variety and

Language Accuracy	constructions <ul style="list-style-type: none"> • sentence variety 		complexity of sentence structure, with some sentence errors.
		2	Frequent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions, shifts, and meaning obscured. Demonstrates sentence that are understandable, but they are short, repetitive, and lack variety and complexity.
		1	Dominated by errors. Not enough to evaluate. Demonstrates fragments, awkward choppy and run-on sentences, with no variety or complexity.
	Vocabulary <ul style="list-style-type: none"> • effective word choice and usage • word form mastery • appropriate register 	4	Uses adequate words which make the message clear, effective word choice and usage. Word form mastery. Appropriate register.
		3	Some inadequacies, occasional errors of word form, choice, and usage but meaning clear
		2	Frequent inadequacies, frequent errors of word form, choice; meaning confused.
		1	Vocabulary not adequate. Little knowledge of English vocabulary and word form. Not enough to evaluate.
	Mechanics & format <ul style="list-style-type: none"> • spelling • punctuation • capitalization • paragraphing (one block-piece of writing and indentation) 	4	Demonstrates mastery of conventions. Few or no errors of spelling, punctuation, capitalization, paragraphing.
		3	Occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured.
		2	Frequent errors of spelling, punctuation, capitalization, paragraphing but meaning obscured.
1		No mastery of conventions. Dominated by errors of spelling, punctuation, capitalization, paragraphing. Not enough to evaluate.	

The paragraph is over 20: Score= 3+4+2+3+3=14/20

21	1	1	1	1	1	1	1	1	1	1	05	05
22	2	2	2	1	2	1	2	2	1	2	08	08
23	2	1	2	2	1	1	1	2	2	1	08	07
24	2	2	2	2	1	1	1	1	1	1	07	07
25	2	2	2	2	2	2	2	2	2	2	10	10
26	1	2	2	2	1	2	2	1	2	2	08	09
27	2	2	1	1	1	1	2	2	1	1	09	07
28	2	1	1	1	2	1	2	2	2	1	09	06
29	2	2	2	2	2	1	2	2	1	1	09	08
30	2	2	3	2	2	1	2	2	2	1	11	08
31	2	1	2	2	2	1	2	2	1	1	09	07
32	2	1	1	1	3	2	2	2	2	1	09	08
33	3	2	3	2	2	2	2	2	3	2	13	10
34	2	2	2	2	2	2	2	2	2	2	10	10
35	1	2	1	2	2	2	2	1	2	1	08	08

Pre and post-test scores of the students' paragraphs in the experimental CL group

Writing Features Names	Content		Organization		Grammar		vocabulary		Mechanics		Total	
	Pre test	Pot test	Pre test	Pot test	Pre test	Pot test	Pre test	Pot test	Pre test	Pot test	Pre test	Pot test
1	2	3	2	3	2	3	1	2	2	3	09	14
2	2	2	2	2	2	3	2	3	2	3	10	13
3	1	3	1	3	2	3	2	3	2	3	08	15
4	1	2	1	3	2	3	2	2	2	3	09	13
5	2	3	2	4	2	4	2	3	2	3	10	17
6	2	2	2	3	1	3	2	3	1	3	08	14
7	1	2	1	2	2	2	1	2	1	2	06	10
8	2	2	1	3	1	2	2	2	1	3	07	12
9	2	2	2	3	1	2	2	2	2	3	09	12
10	1	2	1	2	1	2	1	2	1	2	05	10
11	1	2	2	2	1	2	2	2	1	3	07	11
12	2	2	2	3	1	2	1	2	1	2	07	11
13	2	2	2	2	2	2	2	2	2	2	10	10
14	2	3	2	3	2	4	2	3	2	4	10	17
15	2	3	2	3	2	3	2	3	2	3	10	15
16	2	3	2	3	2	3	2	3	2	3	10	15
17	2	2	2	2	2	2	2	2	2	2	10	10
18	2	2	2	2	1	3	2	2	1	2	08	11
19	2	2	2	3	1	3	2	2	2	3	09	13
20	2	2	2	3	2	3	2	2	1	3	10	13
21	2	3	2	3	2	4	2	3	2	3	10	16
22	2	3	2	3	2	4	2	3	2	3	10	16

23	2	2	2	2	1	2	2	2	1	2	08	10
24	2	3	3	4	2	4	2	3	2	3	11	17
25	3	3	2	3	2	3	3	3	2	3	12	15
26	2	3	2	3	2	3	2	3	2	3	10	15
27	2	2	3	3	2	3	1	2	1	3	09	12
28	2	3	2	3	2	2	2	3	2	3	10	14
29	2	2	2	2	2	3	2	2	1	3	09	12
30	2	1	2	1	2	3	2	3	2	3	10	11

APPENDIX H

Schedule of the Experiment

Weeks	Tasks
Week 1	The pretest The Entrance Questionnaire The Pre Questionnaire
The Interval Period (From Week 2 to Week 14)	Students Write Paragraph in the Wiki page The teacher assists students through the different stages of writing The teacher provides corrective feedback to students' paragraphs Students revise their paragraphs after receiving feedback The teacher checks students' paragraphs Students publish their corrected paragraphs
Week 15	The posttest The post questionnaire The post treatment questionnaire



APPENDIX I

Samples of Students' Paragraphs Produced in the Pretest

Education is one of the most important things in individuals life. It gives them a lot of things that help them in their life, for example, guarantees greater job opportunities. The educated person is more different than the person who didn't educate, because when the person educate he will have the opportunity to work rather than the other person specially in his field of education, such as a teacher, doctor, etc, education can help individuals to find jobs and provide their needs.

For one thing, education is so important in our society... and it gives the person a lot of job opportunities, for example it make him able to get jobs anywhere in anytime, which mean that, this person will have the jobs that he wants depending on his branch easily without real difficulties. Also the educative individual will be respected by all the headmasters of the institutions because his diploma is considered as his shield which protects him from any insult or dissatisfaction of the bosses. In addition to that, the educative person will have opportunity to get jobs in other country, and he will have a flourish future.

Jobs
7.5
1
10

WT



... At the head and as the first positive outcome that education can provide is that it guarantees greater job opportunities for individuals. First, when the individual has many diplomas, this can increase his opportunities to have a good work. For example, when the person writes in his CV that he has three or more diplomas, he has the chance to get the job more than the one who has less diplomas. Second, when people manipulate more languages and they acc. of an elevated rate of education, this will lead them to be needed in the society and to be appeal for better jobs. As a result, education has a great impact on individuals and especially, that it affects their lives; by which it provides them with more chances for better jobs.....

.....



..... First of all, education guarantees great job opportunities. Some persons in our societies trained on the level of their education. For example, the more educational person is the more likely to guarantee great jobs. For this such reason people should be an educational person to guarantee a good job opportunities because: if the person get a good job he will acquire a better life and if he acquires a better life he will do his best to achieve his society. So education not only serve the person it also serve the society. x to serve a person it mean you serve the society. *the all both it*

→ First of all, education provides a great opportunities for individuals to get job. To illustrate more, all countries who establish a strong educational system afford their citizens with high opportunities to job in comparison to other who not have a good educational system. Therefore an educated citizen who have degree and capacities can open new work on new project in which he opens opportunities for himself and for others to get job for example to build a company or to make investigation that give a beneficial outcome for ~~both~~ individual and society.
both



To begin with, education is the only path to a chosen a great job such as teacher, doctor and other different work. However, jobs differentiated from place to place because there are non-educated persons who worked but their work can be difficult and waste their time. For that reason, education helps a person to get job early in a higher class and he made himself responsibly comfortable by his job can get respect from people and it build an important person and this because of education other it can also help them for the interview of job, you can just simply accepted if you are educated person who have a great back ground of information.

..... First, education has a big importance in giving people great job opportunities. All in all, education affects profoundly the intellectual life of the individuals and ameliorate their comprehensive capacities that lead them to have a lot of opportunities to work in the context of international intellectual competences. Moreover, studies make people gather than unethical activities and try to provide them a meaningful job even education was difficult at the beginning but at the end it makes the person proud. Furthermore, in our society the priority was given to educated people over the others in any context. Finally, when someone is well educated then he gets a respectful job and he effectively will gain the respect of the society as well.



.....The first benefit that education gives to individuals is getting greater job opportunities. The educated people are the luckiest people in society because every job advertisement demands the employee to be educated. Thus, they have the chance to get the job more than the illiterate ones simply because they are well educated. For example, if a company announces that it needs a manager, in this case, of course, it will choose the literate ones who have their diploma as a sign for their education and it will neglect the others. In addition, only literate individuals who can have good jobs with suitable conditions in any place they want since everything in this life works with technology. It means that education teaches individuals technology itself. Thus, they are able to deal with it.

.....One major reason of Education is that it guarantees greater job opportunities. For example, if a person has one diploma or more, he will get the priority of taking the job than another one. In addition, if the educated person can talk several languages, he will take the chance to go and work in other countries. For instance as a translator or something else. Also, an educated person has a promotion or an advancement from time to time because of his level. In fact, thanks to his education and his level, he will not need to nephew nephew? he can work easily and without the help of another one.



Education is one of the most important things in individuals life. It gives them lots of things that help them in their life, for example, guarantees greater job opportunities. The educated person is more different than the person who didn't educate, because when the person educate he will have the opportunity to work rather than the other person specially in his field of education, such as a teacher, doctor, so, education can help individuals to find jobs and provide their needs.



APPENDIX J

Samples of Students' Paragraphs Produced in the Post Test

Used in all fields and taught in almost all countries of the globe, English became the world's first language. ^{Many} College students choose English as their major for many reasons, but three of them help us to illustrate the concept. Initially, learning English in university makes the communication with all people easy. For instance, a Chinese and a Japanese use English to communicate. Moreover, English is the language of science and technology; it spends for its learners doors of success in all what they do. Also, it makes student's life easy in learning other majors. Finally, another reason that make students choose English is that it provides opportunities to get a job. All in all, English is an important language and helps students a lot.

English has become the most required field in universities due to many reasons, but three important ones can illustrate the concept. First of all, students like to have the capacity of understanding and speaking a foreign language like English. For instance, they would be able to obtain a high level and enrich their knowledge. The ease of English language is another important reason why students choose it. Indeed, English rules are quite simple and so easy, which make students have no difficulty with studying it. Again, learners enjoy its rich and interesting culture, history, and civilization. The most important reason behind choosing English at universities is that English is the first world language. Truly, it is used all over the world; anywhere people go or travel, or any foreigner they communicate with, they speak always in English. In short, interesting, attracting, and good field to study, English language is ^{important}



The latest educational statistics show that the number of students who choose English when they are in university has increased dramatically. Many reasons lead students to choose English at university, but three major causes help to illustrate the concept. Initially, students choose English at university because it is the world's first language. For instance, English is useful while traveling since it is spoken everywhere, and people who can speak in English face no difficulty when they are out of their country in understanding the surroundings or in asking for directions. In addition to that, English students are able to make friendships with people all over the world. Another major reason why students choose English at university is that it is an easy language to be learnt. For example, English grammar is easier than grammars of other languages, and it is not complicated. Additionally, subjects studied in English often have relations between them. To illustrate, things learnt in the English literature are somehow the same



..... English language is an interesting educational field at university because of three general causes. First cause, English language ~~for many~~ is funny and easy to learn and speak it in few days. For instance, when we study it first time we enjoy it and it's teachers. Another major cause which is English language nowadays has a variety of places of work. For example, teaching, working in office, also it is needing in business from country to another country, so ~~they~~ businessmen need it by translating ~~th~~ of their words. And without doubt the main cause of choosing English language is its use, so we use it to communicate with foreign people by sharing also for cross-cultural exchange. To conclude, those are three major causes that led students to choose English language in university.



Students choose English for many reasons, but only three major reasons help illustrate the concept. Initially, English became international language. For instance, when students go abroad they can communicate with foreign people and improve their language. Another major reason is that English allows to get a better job. Every company or any place of employment asks firstly about the level of English and how the student can improve their language to get the best job. Finally, English increase the level of intelligence. It can motivate the brain to know more about the tradition of other foreign country from exchanging ideas. All in All English becoming international language, getting better jobs and increasing the level of intelligence are the main reason of choosing the studying English in the university.



..... Among a variety of educational fields, English is considered as a very interesting one. Many university students choose English because of many reasons. Initially, with mastering the English language, you will be more likely to express yourself, to introduce your ideas and thoughts to the world, also to understand all the world around you. Another reason why English is very important field is that it can be considered as an international language nowadays because of its huge spread among people all around the world. At the present time, whenever you go, speaking English allows you to communicate with different people from different cultures. The most important reason is to be included in the international community. The world today is almost like a community, and of course because the majority of people now speak English. You will be more able to be part of this ^{fragment} community because you must master the community language in order to be part of it. To conclude, learning and mastering English is really needed in order to communicate with others people from different cultures.

Q A



..... Many students choose English in university because of many reasons, but three major causes help illustrate the concept. Initially, English is an international language. It is learned in all the world, and everyone must know how to speak it because it helps the person to communicate with other people from other countries. Also, it allows people to travel wherever they want for they can communicate with the people of that country even they don't know their mother language. In addition, English is easy to learn. Its pronunciation is very soft, and its grammatical rules are easy. In comparison to other languages, English is considered as the most easy language around the world. The last and the most important cause is that English provides you many jobs. Since it is an international language, it facilitates to the person, who can speak it freely, to find jobs wherever he wants; for example, he can work in any company in any country, with any people who come from other countries. Finally, let us say that English is considered as a very interesting language, what leads students to learn it.

..... Most students choose English when they are in university, but three major causes will help illustrate the concept. One of the reasons is that English is an easy language to learn; even if the grammar and writing rules are bit difficult, the spoken form of English language is easy to master. Another reason students admire the native speakers of English and want to know more about their history, or dream to visit England or America and communicate with the native speakers. The most important reason, English is considered as the language of the world. All people particularly university students around the globe choose to learn it. Easy language to master, great history and a universal language are the major reasons why university students prefer English language over other educational fields.



Learning English language in universities can be attributed to three main reasons. Initially, English language is the easiest language among other foreign languages. For instance, students don't find many problems in Grammar of English language as for example French language where they find a big problem. Another main reason of learning English language is communication with native people. Students want to speak this language easily with native people if one day travel abroad or while they are chatting with them in Facebook. But without doubt the most important reason of learning English language is being a universal language. Wherever the student wants to go, he can communicate with people in English. And because every invention is written in English like new cellphones, students want to understand this new invention by themselves. Being a first language, communication with native people and being a universal language are three sufficient reasons to learn English language. English is



110 (Cyber)

..... After qualification of high school, many students go on to university and chose their preferable field, but choosing english at university by students has many reasons. One important reason of choosing english at university is to facilitate communication with foreign people. For example, in travelling, the english learner can exchange ideas with others or he can speak about his culture. Equally important cause of studying english at university is to go abroad and study in London. Some students believe that studying hard and acquiring the qualification to study abroad is not impossible. The most important reason of choosing english at university is to build an international business in the future. Some english students chose this field because they want to build their own business in the future and want to practice it abroad. To conclude, studying english at university is not just for the reason of going abroad, but it is for many other important reasons.

APPENDIX K

Samples of Students' Paragraphs Produced in the Interval Period

Failed marriage is a result of several reasons. In the beginning, we take the early marriage as the first reason which led to the collapse of the relationship between the couple, because this pair can not assume the huge responsibility of marriage. In addition to that, the bad treatment and dealing between the pair for example, a woman who didn't care about her husband's feelings and matters and vice versa. Thirdly one other reason led to the divorce and failed of marriage is the interference of parents in the couple's privacy, this creates hostility between the two families, then they will of course effect the relation between pair and this relation will end with divorce.

The single and the marriage life differ in the amount of responsibilities expected to person and the amount of the freedom he had. A clear difference is that single person feels more free and independent also he feels that he owns his life and controls his environment, in contrast when decided to share his life with someone his freedom is going to be limited. In addition, in a single life, person doesn't need others to make decisions and he has the liberty in the aspect of coming and going with friends while a married person has to share his decision with whom he wanted to be and each one should respect the other. Moreover, the amount of taking responsibilities is totally different person alone has just his own responsibilities but the married one must take all the responsibilities of the house.

People nowadays are interesting in keeping fit and slim that's why they follow many types of diet to reach this goal, but unfortunately they don't stick to the right diet. Having unhealthy diet can lead to many harmful consequences. To start with, irregular diet can give us a wither-ward result because the body of the person who have diet may have a disaster reaction; instead of losing weight he gets overweight. In addition to that the follower of hard diet probably suffers from serious health problems like: low blood pressure, skinny and digestive illnesses. Moreover, people sometimes are ready to do whatever it takes in order to lose weight regardless of the effects that may appear and at all costs. For example they take pills, injection and even using unguent cream. To sum up the effect of unhealthy diet are disastrous so people have to organize their meals time, to be conscious about their food and to practice sport and eat regularly.

Having a party or wedding can be considered as big responsibility for many people because it must seem to be well organised, making a good party need many steps that should be done. To start with, before the day of our wedding we should prepare a schedule for what we are going to do like to divide our time into parts and each part we do activity in it. In addition to that, cooperation is the most helpful thing we can do, when we cooperate with other member of family or friends we gain time and energy in the same time. Moreover, to be sure that all thing is going on right way we should send invitation to our guest and also to make good decoration for our home. All in all a wedding is sign of happiness and in order to make it well organised we have to take this advice into consideration.

Although high school and college are both educational institutions which help people achieve greater intelligence, they differ in some point. To begin with, high school and college are different in their social atmospheres. For example, in high school the facility is usually smaller, and students are the most part, well acquainted with each other. In contrast, in the college students are constantly coming, therefore rarely seeing the same person twice in a day, which accounts for fewer students being acquainted with each other. The second difference between high school and college is attendance policies. For instance, in college students must attend class to get good mark in their participating of class. Furthermore, college students are more responsible; therefore, if they have three absences, they will be excluded; however, high school students can have more than three absences without excluded. The third difference is teacher and student relationship. In high school teachers monitored students grades and attendance, and they checked with parents about any missing work and absences. Conversely, many college teachers don't take attendance or have the time to make sure about all of their students are making passing grades in all their courses.

Several differences exist between married people and those who are still single in terms of responsibility, money and freedom.

Firstly, responsibility is the first difference between single and married people lives because the first category have the less responsibility than married people. For example, single people do their individual works but married people are responsible for many people in their home. Also, who can resist the smile of a baby every morning indeed it is the happiest moment in life, but we must see the responsibility of being a parent because we must feed a baby, teach and guide him enough to be a good man. By comparison, people who are single are not obliged to guide someone or look after a child. Second, money is another difference between them. If a single person earns his/her own money, this money can be spend freely without thinking. On the other hand, married people do not waste their money even if they earn their own money because we think about the necessity of the members of their families. Hence, being married can be costly in order to have a good life.

Third, freedom is another differentiating point between single and married people. However being married is like a second job, we have to work at it in order to be successful. In the single life, the individuals do not have to consult any one, but in life married they consult each other. For example, single people can go out with their friends without asking for anybody's permission, but if married people want to go out with their friends, they have to get the permission from their partners.

Our society is divided into two part: educated people and uneducated people, and they are totally different in their way of thinking and dealing with others. To begin with, the educated person can get a job wherever he want without a real difficulties while the uneducated one will face a lot of obstacles to get even a simple job because he haven't diploma. In addition the learned father or mother can help their children to performe better in study and get good average. In contrast, the uneducated parents won't be able to help their children to study, and even sometimes affect them badly by convincing them that the study is not a good thing especially for girl. Furthermore, an educated person can travel to other countries, and he will be able to communicate with people and understand them very well, however, unschooled person will find many impediments, and he will be ignored by these communities.

Now different countries which are Algeria and Tunisia even though they are situated in the same continent and they are also neighbour land, they differ in a lot of things. The first thing is that Algeria is a large land while Tunisia is a very small one. Other point is concerning tourism; Tunisia receives thousands of tourists around the year especially in summer. In contrast, Algeria is known as land of terrorism, so it doesn't receive a lot of tourists at all. Furthermore, Algeria has a bad system of education in comparison with Tunisia which has a good one. The last point is that Tunisia still suffers till now from civil war as contrast to that Algeria is living in peace and security.

Everyone dreams to have a happy family composed of father, mother and children where they share everything. Children, in general, are the luckiest people because they have two mothers; one in the house and the other one in the school. Although people think that the mother and the teacher share some similarities, they have some differences. First of all, the mother is more responsible than the teacher. It means that the mother takes care of her husband, her children, and her house where she does her duties: cooking, cleaning, and helping her children in their studies. However, the teacher cares only about pupils and their studies. For example, she cares if they do their tasks and how to develop their skills and levels. Moreover, the mother is very patient because she is a wife, a mother, and a housewife at the same time. For instance, if her children is ill, she will keep all the night waked in order to provide his or her needs. On the other hand, the teacher is more patient than the mother. For example, if one of her pupils can't read or do the exercises, she will do her best to help them. In addition to this, the teacher in the class is patient to answer all her pupils' questions, to explain, and to re-explain if it is necessary. Finally, the mother loves her children too much; she gives them her tenderness where they feel by security. The mother also is more sympathetic than the teacher because she divides her love equally between her children who are part from her. On the contrary, the teacher sometimes differentiates between good pupils and weak ones. Therefore, they feel that they are unequal for her, this behaviour causes many psychological problems to them. Hence, they hangback in their studies.



Failed marriage can be for many reasons; some of which are a forced marriage, and lack of interest.

The first cause of failed marriage in our society is a forced marriage. This point figures out that the spouse is married without his or her consent. A forced marriage differs from an arranged marriage, in which both spouses consent to the assistance of their parents. Forced marriage is still practised in various cultures across the world and is still the main cause of failed marriage.

The second cause, lack of interest in each other, is one of the causes that lead marriage to fail. The family is the best place to share everything about work, friends, home, and every thing in life. Moreover, wife or husband shares house problems to solve each other and family. Otherwise, when the husband returns home, the wife has to do many things such as cleaning, washing, cooking, and taking care of children, so he will find her very tired and angry... she is unintentional to cause boring family and the interest of her husband will decrease and day by day her confidence about her husband will disappear and automatically the husband will feel tired when the wife always grumbles about every thing.

If we want to build a happy family, we should avoid all the obstacles that lead marriage to fail and give the spouse the option to choose the suitable things for their life.

Exams are very important to students because it is considered as a chance to evaluate their level and to improve their skills, however, revision for exams needs to follow some steps. First, students have to manage their time; it means that they organize their time in a schedule where they determine time of revision and time of entertainment. Second, revising lessons everyday is very important and it helps students to get high degrees. At the same time, the revision refreshes their mind because if the teacher asks them about previous lecture, students would answer and this would satisfy the teacher. Finally, students should make an outline to every lesson they study and this would help them when they revise, the lesson will be very easy to revise and this will help them to understand and to answer easily.

People follow unhealthy diets in order to reach good results quickly without caring for the outcomes of these diets; however, the problem of unhealthy diet can be solved through following three steps. The first solution to avoid unhealthy diet is to consult doctors. It means that people, who want to do or try any diet, should ask doctors to give them a piece of advice. This means that what they should follow and what they should avoid. For example: avoiding any food that contains high calories as well as avoiding alcohol drinks. Another solution for avoiding unhealthy diet is to eat healthy food, like fruits and vegetables which are considered as the most rich foods because this kind of food gives the body power and makes it strong, healthy and beautiful at the same time. Finally, to escape from unhealthy diet is to exercise regularly because sport is the best solution to lose weight and reach the desired result without danger. Thus, to be healthy is more important than being slim but with a sick body and dangerous diseases.

Lack of participation in classroom has been always an obstacle in student's career due to different problems which fortunately can have some solutions, like motivation in classroom, change of the teacher's methodology and providing students with the whole program. To begin with, motivation is considered as one of the most helpful ways to prevent the lack of participation in classroom, for example: teachers might organize some competitions with rewards to those who performed well. In addition to this, teachers probably have the key to end up this problem and elevate the rate of participation in their classrooms by changing the method of explaining lessons and even asking questions. Moreover, the absence of participation can also be diminished by providing students with the whole program in order to give them the opportunity to prepare well. To sum up, lack of participation in schools becomes a very spread phenomenon that must be solved with different ways.

Today, English is used widely, it has become the most popular language of communication between countries, so it's important that we learn to use English. There are three ways to improve English which are: speaking, reading and listening. Firstly, having a conversation in English is the best way to improve the speaking skills especially if you have the opportunities to talk with the native speakers. Secondly, to improve your English increase your reading speed as well as amount of vocabulary. Lastly listening skills. English speaking countries or TV dramas and films are really good training materials that can help to improve your English. So if we want to learn English well and speak it fluently just we follow those points.

To ameliorate our level in English, we can follow a certain process. First of all we take seriousness as the first solution because the daily attendance in class, participation, practicing with following teacher's instructions can play a big role that help the learner to saturate his gaps, in addition to revision which also presents an important factor that leads the learner to a positive result because if he reviews what was done in class he can keep himself in relation with study. Concluding with the useful solution which is asking questions, reading books and seeking for information using the internet we can say that all these tools can complete the lack of the student by enriching his knowledge. Finally to have a good level every one should take everything in consideration from the beginning till the end because the base is essential for every scholar, so he does not confront hardships in his study life.

Nowadays Algeria seems more progressive, more secure and more educated comparing with the colonisation period, thus we find several changes from the past, starting with the subject of education in colonialism time, we find that Algerian citizens were suffering from lack of schools, there were no teachers just some mosques to teach children Quran. However, now the system of education is very rich as we can find numerous schools everywhere with different branches and plenty of teachers. Secondly in the past, because of war the economic was destroyed as a result there was no progress, while today social stability makes the land more developed and advanced. Thirdly Algeria in the black decade characterized by insecurity, fear but the situation is totally different from now. Finally due to the revolutionists Algeria became more advanced in many fields than the past.

There are many reasons behind marriage failure such as **the lack of confidence, less responsibility and social problems**. To begin with, many couples in our society suffer a lot from the lack of confidence, especially **men who face difficulty in trusting his wife** or vice versa. For instance a **skeptical man or woman may destroy his marriage by not trusting his wife or when the woman does not trust her husband**. For that, the separation becomes something very expected and absolute to happen. In addition to this, it becomes a very hard thing to find a responsible woman or man. **Because, parents who don't accomplish their duties may face serious problems**. For example, when the female or the male do not take care of **her or his family** in an appropriate way this will lead them definitely to divorce by a way or another. As a final reason, we have the social problems which are considered as the most known **phase that lead to unsuccessful marriage**. **Because**, when the couple suffer from financial issues, **concerning the loss of home, insufficient food, not a satisfactory job**, this unfortunately will cause an endless conflict between both the man and his wife. Thus, after having this kind of struggle the marriage will not last for longer time. To end with, marriage failure is a very known phenomenon **that spread** nowadays, unfortunately this aspect happens **of the time** because of **silly** reason. As a result, many couples separate without **getting** any importance to such a blessed relation which is based on serious decisions **and not to rush up**.



Sleep prevention has its consequences on the human being on the following three levels: physical, mental and social. To begin with, the physical consequences of not getting enough sleep can be portrayed as tiredness. For instance, this will lead to weaken the body and affect negatively on the health. Almost the same important consequence is the mental one, in which the person will behave in a very bad way. For example, he would be angry all the time and shout on people. The most important consequence is on the social level, the person will act in a strange way, less interaction with people around him, for example, he will change his attitudes which will maybe destroy his relationship with the society members. Not getting enough sleep may cost the person too much and may bring him negative results and consequences on the physical level, the mental and the social one.

Watching TV for long periods of time can cause many harmful consequences on our daily life. Watching TV can be a waste of time especially when we are interested in watching non-beneficial programmes. In addition to that, watching TV for students while having an exam takes all their time because when they start watching they can not stop themselves and if they stop they will not be able to concentrate their thoughts on their study. However, for many people watching TV is the most enjoyable habit, so whenever they have a free time they use it in enjoying different TV shows like movies, news, or cartoons for children. Also, people leave reading books, doing sports and also helping each other to do some good work for their society. TV programmes have the priority and became a widespread habit. Moreover, while we are watching TV we can not be safe from what programmes show, many channels present non-ethical programmes, we can take our child as an illustration of that. Children are not able to distinguish between good and bad TV shows like nowadays cartoons, huge number of cartoon shows violence, non-ethical behaviour and also very dangerous habits. To conclude with, watching TV for long periods of time can be a great danger on us, we have to be conscious about what we are receiving from TV, we have also to organise our time and divide it in a good way in order to take the maximum benefit from this technology.

Because learning English is important as it mentioned as the international language, it is important to improve English following three effective ways which are speaking, listening, and reading.

First of all, speaking skill; to improve English, learn to understand spoken English and practice speaking till you learn how to pronounce correctly and frequently. In other hand, having a conversation in English is the best way to improve the speaking skill.

Secondly, listening skill; watching television and listening to the radio are good training materials that can help the listener to improve his English very well.

Thirdly, reading skill; reading books, magazines, and newspapers are good ways of improving English. On the whole they are grammatically correct, in that case we learned how to use correct English in writing and speaking.

So these steps can help us to achieve our goal which is improving English, and using it as our native language.

There are many reasons behind school escape by teenagers. But the main reason which is classified as a psychological reason. However, the teenager suffers especially from this side because of the bad treatment or the violence which happens at schools. So we should fix those problems as soon as in order to consider the teenager's future by means of the good treatment that makes them more interested about school in addition to that the encouragement by giving them all the chances for motivate themselves and skills.

Marriages fail due to work pressure, lack of responsibility and lack of appreciation. To begin with, the first cause of failed marriages in our society is work pressure. This means that the couples have many works to do in their office in order to earn a lot of money to satisfy family life requirements. Therefore, when the partners go home, they feel tired and they do not share home works with each other or even exchange their **points of view**. Indeed, lack of responsibility is the second common reason of marriage failure **because duties and responsibilities** of the family should be equally divided among the couples. Additionally, an irresponsible partner will put the other one to face more stress in the relationship, then here it is natural that one will start thinking of ending it up. Furthermore, the lack of appreciation is another reason why marriages fail because the couples just stopped appreciating each other and **all their efforts**. For instance, saying a simple "thank you" can do wonders to anyone. To recap, understanding between the husband and the wife is the key to every happy home and is a must thing for any **couple that wishes** to live happily in marriage. They must learn to let go, learn to tolerate and learn to love and to appreciate.

Generally if you ask someone what their favorite food is you will probably hear the word pizza. However, making pizza is not difficult as you think and you can follow these three steps to guide you make a delicious pizza which are making the sauce, preparing the dough, cooking, and decorating it. First of all, you can start with pizza sauce which consists of tomato, water, olive and spices or you can add other toppings on it like mozzarella and mushrooms. Next, you will need such ingredients in order to prepare your dough which portrayed in flour, yeast, salt, a small pinch of sugar and warm water. Once you finish, spread the dough that you have made a circle with sauce and put the topping also. In the last step, you should bake a pizza with an oven approximately fifteen minutes and here you can arrange your own style for decoration. For example, grate more cheese or add tuna, mayonnaise, ketchup too. In conclusion, to make a pizza as delicious as in the restaurant is easy if you follow the three steps above.

Lack of reading among children needs important solutions that will help children to improve their reading and read more books. In the first place we can provide our children with pictured stories, because by doing so, we will make the children imagine the scenes and try to interest more in stories and especially interest in reading. Secondly, we can make some reading for children and let them retell some parts or events of the story, for example this will help a lot, the vocabulary of those children will be rich and this will motivate them to read more. To end with, making competitions and award children with prizes help a lot because the more you prize them the more they will read. To sum up, making children read more is a bit hard but not impossible but rather than this we can say that following the previous tips can help children to improve their reading skills, have more interest in reading, and be helpful members in the future.

There are some steps that may be followed in order to improve English, which are listening to music, watching movies, and reading more books. To begin with, a person who fears speaking English because of making mistakes may take into consideration this first step that includes listening to music because it will help him a lot; he will enrich his vocabulary, learn new words, and know how to spell them correctly. As a second step, the same person can improve his English by watching a great deal of movies. For instance, he will benefit from those movies; he will see how they speak and pronounce and at the same time he will listen carefully and grasp how to vocalize English fluently. As a final step to be followed, that person can read more books because books help a lot by gaining a huge number of new words and expressions, learning how to write without making grammar mistakes at the same time enjoying the book and benefiting from it. To end with, listening to music, watching movies, and reading more books are all stages to be followed in order to improve your English.

Marriage fails because of many reasons including the lack of confidence, less responsibility, and social problems.

At the head, we find the lack of confidence as a main reason that leads to fail the marriage. First, couples who don't trust each other will give birth to an unsuccessful marriage. For instance, a man who keeps asking his wife where did you go today, why did you go, never go to that place again, I don't trust you or keep on watching her or like they say spy on her this will create a conflict between the couples. The same with the wife who asks a lot of questions and keeps on insisting on her husband this will show that she doesn't trust him and because of lack of confidence separation here is definitely about to happen sooner or later. Less responsibility is considered as a second reason behind an unsuccessful marriage. In here, we can take the example of the woman who doesn't take care of her husband and her children she doesn't clean the house doesn't educate her children doesn't do her duties this irresponsibility may cost her a lot. Also, a man who is careless and never interacts with his family members or looks for their needs may be participating in destroying his family by his own hands. As a result, we can say that irresponsible parents will pay a high price which is divorce and all this because not being responsible, careful, and caring about their family. To end with, social problems may be portrayed as not having a satisfactory job, home, or enough money for those three reasons, couples may face serious issues. To illustrate that we can say that a father who can't feed his family is creating a serious deal of problems; he and his wife will all the time fight and have endless disputes that cause a kind of hostility between both the father and the mother. In such a case leaving each other is something naturally expected and the destruction of the marriage is of a high level to happen. All in all, we can say marriage is such a sacred relation that shouldn't be destroyed by our irresponsible acts. Our holy book regards this relation as really important one; so we have to follow its instructions to keep our life clean and happy from those issues that will perturbate our stability.

تعرف تكنولوجيا الواب 2.0 انتشارا واسعا في الوسط الجامعي الراهن ، وعلى الرغم من انها محل بحث واسع في العالم الا انها تبقى في الجزائر ذات نطاق بحث محدود وضيق ، الامر الذي يجعل الحكم على نجاعتها من الصعب الجزم فيه . وعلى ذلك كان الهدف من هذه الدراسة هو بحث مدى فعالية دمج تكنولوجيا الواب 2.0 في التعليم لأجل تطوير مهارات الكتابة لدى الطلبة ومعرفة اراءهم حول ذلك . تقوم هذه الدراسة على فرضية امكانية تطوير مهارات الكتابة شكلا ومضمونا لدى الطلبة باستخدام هذه التقنية ، ولتحقيق ذلك تم اتباع المنهج التجريبي من خلال اختبار فوجين من طلبة السنة الثانية لغة إنجليزية ضم الفوج الاول التجريبي 30 طالبا والفوج الثاني غير الخاضع للتجربة 35 طالبا ، وكان المطلوب من كلا الفوجين كتابة فقرات . ومن اجل جمع المعطيات تم الاخذ بالمنهجين الكمي والنوعي ، اين تمثل الاول في الاستمارة ونقاط الفحص ما قبل وبعد التجربة والثاني في اجراء مقابلة مع الطلبة وتحليل الفقرات المنجزة لغويا . وقد اظهرت نتائج الدراسة وجود فرق واضح في مهارات الكتابة لحساب الفوج الاول التجريبي اضافة الى ملاحظة وجود فرق في هذه المهارات لدى هذا الفوج قبل وبعد التجربة. وأهمية هذه الدراسة هي انها تعد وسيلة مساعدة للأساتذة تسمح لهم بتفعيل استخدام تكنولوجيا الواب 2.0 من اجل تطوير التعليم ، كما انها تساعد الطلبة من جهة اخرى على تحقيق حاجياتهم التعليمية ، فضلا عن ذلك فهي تساعد واضعي المناهج التعليمية لأجل التفكير في دمجها ضمن هذه المناهج .

Résumé

Bien que les applications Web 2.0 se développent de plus en plus parmi les communautés universitaires actuelles et demeurent un objet recherche dans le monde entier, elles sont encore un domaine de recherche vierge et inexploré en Algérie et l'évidence de leur efficacité éducative jusqu'alors reste indéfinie. Par conséquent, l'objectif principal de cette thèse est de cerner l'efficacité de l'intégration de la technologie Web 2.0 dans l'enseignement en classe afin de développer les compétences à l'écrit chez les élèves, ainsi que leur perception quant à l'application de ces outils. Par conséquent, l'hypothèse de base de cette étude est que la technologie Web 2.0 peut contribuer à améliorer les compétences à l'écrit des étudiants tant dans la forme que dans le contenu. Dans cette optique, la conception quasi expérimentale était la conception la plus congruente à suivre, car deux groupes de deuxième année intacts ont été assignés à participer à l'étude et n'ont pas été choisis au hasard. Le groupe expérimental (N = 30) a subi un traitement d'étude en classe et d'écriture à l'aide d'outils Web 2.0 alors que le groupe témoin (N = 35) a reçu l'écriture en classe uniquement et les deux groupes ont été affectés à l'écriture de paragraphes. L'approche de la méthode mixte a été utilisée pour recueillir des données, y compris un questionnaire, les résultats des pré-tests des élèves et les résultats du post-test, les paragraphes en ligne des élèves en tant que corpus et une entrevue. Les résultats ont révélé qu'il y avait une différence statistiquement significative entre les élèves du groupe expérimental et les élèves dans les compétences d'écriture de paragraphe du groupe témoin. En outre, une différence statistiquement significative s'est révélée dans l'écriture de paragraphe dans le groupe expérimental avant et après l'implication dans l'écriture web 2.0. De plus, les perceptions des participants étaient positives pour l'utilisation de Web 2.0 pour développer leurs compétences en écriture. Les résultats de l'étude seront particulièrement utiles aux enseignants pour améliorer l'utilisation des technologies Web 2.0 dans leurs pratiques d'enseignement et d'apprentissage, afin de permettre aux étudiants de répondre à leurs besoins et préférences d'apprentissage en tant qu'apprenants expérimentés numériques et aux concepteurs de programmes d'études pour considérer l'intégration de la technologie dans les programmes d'études.