

University of Zawia
Postgraduates Studies and Training
Faculty of Arts
Department of English

**Spelling Errors made by 4th Year English Department
Students at Zawia University**

**A thesis Submitted in Partial Fulfillment of the Requirements for
the Degree of Master of Arts in Applied Linguistics**

By:

Hanan Ahmed Ali Alkilany

Supervised by:

Dr. Abdussalam Saleh Tantani

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Abstract

This study investigates the spelling problems that many students in the Department of English at the University of Zawia face when they write. It aims to identify the most common types of spelling errors that university students encounter while writing, and specify appropriate strategies to respond to them. To collect the data required, quantitative and qualitative methods were utilized. The quantitative data was collected through distributing sixty writing exam papers to 4th year students. These exam papers were chosen randomly. SPSS software program was used to analyse the quantitative data. Whereas, Semi- structured interviews were employed to collect the qualitative data. A purposive sampling technique was employed to select four teachers and four students to be interviewed in semi-structured way. Thematic method was used to analyse the data gained from the interviews. The findings obtained from this study showed that ‘omission’, ‘substitution’, ‘addition’, and ‘disordering’ were the most common error types committed by university students. Other problems were related to language interference, lack of strategies used in teaching spelling and lack of teaching spelling resources. The research findings also showed an insufficient awareness of spelling, phonological, morphological, and phonetic rules, which were the main reasons of writing difficulties that university students face. The study provides a number of useful insights and effective techniques that can be adapted by language teachers to improve their students’ writing skills. Suggestions for further research were also provided.

Declaration

I hereby declare that I am the sole author of this thesis entitled Spelling Errors made by Fourth Year English Department Students at Zawia University and that no part has been plagiarized. I also declare that all material submitted in this work which is not my own work has been identified with proper citations and referencing and that no material is included which has been submitted for any other assignment of other subjects or courses.

Signature



Date

1/10/2021

Dedication

I dedicate this work to my daughter

Acknowledgements

I would like to take this opportunity to thank those people who have been incredibly supportive. Very special thanks to my brilliant thesis supervisor Dr. Abdussalam Saleh Tantani for his positive criticism and guidance to complete this work. Thanks to my friend Basma Hadoud, for being very encouraging and supportive.

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Acronyms and Abbreviations

EFL	English as a Foreign Language
L1	First Language
L2	Second Language
EA	Error Analysis

Chapter One

Introduction

1.0. Introduction

Spelling errors is one of the challenges and the most common errors that affect Arab students' written work. It causes a major obstacle for students throughout their educational stages. In addition to the background of the study, this chapter includes the statement of the problem, the aims, the research questions as well as the significance of the study. It also includes the methodological framework used and the outline of the study.

1.1. Background of the Study

In literature, many studies were concerned with the issue of spelling errors. Some researchers investigated the source of errors, causes, and the possible techniques to overcome them. Cook (1999) for example, investigated the most common types of spelling errors in the written work of English language learners that are commonly made. Spelling itself seems to cause a lot of confusion for all learners of English, including Arab learners. Hildreth (1962:3) noted that despite language instruction, “the commonest words are persistently misspelled”. Moreover, Bahloul (2007) indicates that English spelling is a problem for all learners, including native speakers. He also adds that the main cause of spelling errors, and the one that negatively affects the process of developing the second learners' spelling proficiency is the irregularity of the English writing system. This irregularity appears to confuse learners from different language backgrounds, including native speakers.

Furthermore, Templeton and Morris (1999) argued that there are frequent patterns in English spelling that provide a level of consistency that functions within and between syllables. These patterns complement the alphabetic level in providing information about

how sounds are spelled. Learners come to know that there are letters that seem to be silent in words but have a function that affects the pronunciation, such as the effect of the *e* in English words, as in the example that they use, *scrap* compared to *scrape*, in which the ‘silent’*e* changes the nucleus of the syllable from /æ/ to /eɪ/. They also added that an awareness of these patterns helps students in both reading and spelling, because when students come across an unknown word in reading they can apply their knowledge of patterns to access the sound of the word.

According to Al-Jarf (2008), the problems also can be classified into phonological and orthographic difficulties. Phonological knowledge stands as a barrier to spell correctly in English. More specifically, learners sometimes write words that do not correspond to the target word for different reasons. For example, these words were not heard at all, students’ inability to distinguish some or all the phonemes in the words, the word sequence, minimal pairs, single vowels and consonant phonemes, or it might be because of failing to recognize flaps and elision. Al-Jarf also stated that orthographic errors usually refer to that misspell words which sound like the target word but the written form or the grapheme does not correspond with the intended word or the intended grapheme. He identifies many cases which can be called orthographic problems. Learners may confuse vowel or consonant graphemes that have the same sound, they may confuse vowel and consonant digraphs, delete silent vowels and consonants, represent consonants with hidden sounds phonetically, or substitute the words by other homophones. This problem is also existed in the researched context. The reason might be related to teachers’ lack of knowledge about using appropriate methods in their classes, understanding the nature of spelling problems including their causes and how to effectively respond to them. According to Ahaisoni et al., (2015: 192) “A few research studies focus on the issue of spelling errors and very few studies investigated the Arab EFL spelling errors difficulties”. For these reasons, this

research is aimed to provide a clearer picture about the most common spelling errors to help students be more aware of their spelling mistakes. It is also aimed to provide value recommendations for teachers to adopt in their teaching programs.

1.2. Statement of the Problem

It has been observed that many 4th year students in the English Department at Zawia University commit spelling errors in their writing. This reflects significant difficulties that hinder those students to clearly convey their message and express their ideas. Moreover, previous research also points out that learners from different backgrounds are expected to have different spelling problems (Bahloul, 2007; Fender 2008). Therefore, this research was intended to deeply investigate this issue and come up with useful insights and practical solutions to overcome or at least minimize these difficulties.

1.3. Aims of the Study

This study aimed to identify the most common types of spelling errors committed by 4th year students in the English Department at University of Zawia. It also aimed to discover the difficulties that university students encounter whenever they write in English. Furthermore, the research in hand aimed to pinpoint the most appropriate and effective methods and strategies that university teachers adopt to raise their students' awareness of spelling rules, which in turn reduces the chances of committing spelling mistakes in their written work.

1.4. Research questions

1. What spelling errors do 4th year students make when they write in English at University of Zawia?

2. What are the students' and their teacher's perceptions about the spelling difficulties?

1.5. Significance of the Study

This research is significant in terms of identification and analysis of the most frequently occurring spelling errors that 4th year students in the English Department at the University of Zawia. This study offered a number of useful teaching strategies that teachers might adopt to improve their students' English spelling. Thus, teaching spelling helps students focus on the writing task without being confused by the fear of committing spelling mistakes. Their written work would be clearer, as it would be free from excessive spelling errors.

1.6. Methodology of the Study

Both quantitative and qualitative methods were utilized in this study. To collect the research data required, two instruments were employed, namely students' writing compositions and semi-structured interviews. Regarding the research sample, the number was sixty male and female participants with age ranged between 22 and 24 years. Furthermore, four students and four teachers were selected in purpose to be interviewed. This study used error analysis (EA) hypothesis to analyze the students' writing texts as quantitative data. The reason for using it because, as it is the most appropriate method to specify the types of spelling errors (Cook, 1999). The researcher supported her quantitative analysis by using SPSS software to guarantee more reliable and valid answers. Moreover, thematic analysis method was employed to analyse the qualitative data. For more details, see chapter three.

1.7. The Organization of the Study

This study consists of six chapters. The first chapter includes the introduction which presents the background of the study, an overview of the nature of the problem to be investigated, and an outline of the research in hand. The second chapter contains a detailed discussion of related previous studies on spelling errors. The third chapter presents the methods and tools that were utilized to collect and to analyze the research data. The fourth chapter presents the process of data analysis in addition to the findings obtained. Chapter five contains the discussion of the findings obtained in relation to the research questions and literature review. Chapter six includes a summary of the research findings, conclusion, limitations of the study, recommendations for further research, and implications.

Chapter Two

Literature Review

2.0. Introduction

Spelling difficulties was widely discussed by researchers in the domain of second language acquisition. This issue is considered one of the main problems in all English language learning stages as it is clearly contributing to the poor performance of students in English (Johnson, 2000). This chapter provides a detailed discussion about this issue. It is divided into a number of subsections: The conception of spelling, history of spelling, the importance of teaching and assessing spelling, spelling development stages, approaches to spelling instruction, affective strategies to monitor spelling, types of spelling errors, spelling difficulties and causes, connectionist theory, error analysis theory, and previous studies.

2.1. The Conception of Spelling

Spelling is an important element that learners of English must have to think about to be able to write accurately (Gentry, 2004). In literature, the term spelling has been defined by many researchers, for example, Al Otaiba and Hosp (2010: 6) viewed spelling as “a linguistic skill that involves ‘encoding linguistic forms in to written form in which [t] he linguistic units-phonological strings, morphemes, and words are provided by the spoken language”. Alber and Walshe (2004:24) defined spelling as “an essential and complex visual memory, phoneme-grapheme awareness, as well as, orthographic and morphemic knowledge”. Sterling’s (1983) added that spelling nature means “morpho-orthographic, the graphemic forms of root morpheme and inflection morpheme stored separately in the internal lexicon [and] retrieved when an item is to be spelt and put together after the application of the appropriate adjustment” (p. 356).

According to Coyne et al., (2006: 133) spelling is “recognizing or reproducing a correct sequence of letters in oral or written forms the actual process of spelling involves the critical integration of phonological and alphabetic skills of beginning reading”. Spelling is how the learner can write words in a correct way; not only that but also, it is not based upon a single act but requires a variety of skills. In their research, Graham and Miller (1979) defined spelling as the ability to recognize, recall, reproduce, or obtain orally or in written form the correct sequence of letters in words.

2.2 History of Spelling

Spelling has come to show the history of the word in addition to its origin. The spelling of most native words has been standardized according to the way in which they were pronounced many hundreds of years ago but not according to their current pronunciation (Payne, 1995). In order to know the correct pronunciation of the word, it is important to be aware of the spelling rules and patterns. In their research findings, Deheane (2009) and Wolf (2007) argued that patterns are the most effective and efficient way to teach regular and predictable words in English, the human brain is able to recognize all patterns since the day of birth. The brain allows babies to pay attention to the fixed features of the faces and objects around them and begins to recognize them. Similarly, Cunningham (2004: 83) stated that “the brain is a pattern detector, rather than an applier of rules”.

Johnson (2000:377) concludes that “There is good evidence; however, that capable spellers respond to patterns rather than rules, and these patterns more accurately capture the complexity of English”. In fact, spelling rules as a whole are deemed not very useful in improving overall spelling achievement (Davis & Warren 1969; King, 1932; Turner, 1912).

Spelling rules differ from those rules of grammar because “Spelling rules are consciously taught and learned, they show little of the abstract logic of grammar”(Pinker, 1999: 12). Most traditional spelling rules are based on the written language, so it needs to be supplemented by more basic rules and these rules left for children to ‘pick up’ as best as they can (Crystal, 2002). However, it can be argued that the child will not be able to cover all the spelling rules alone without following a complete systematic spelling program.

2.3 The Importance of Spelling

At the beginning of the 21st century people have learned about spelling as a brain-building boon for effective reading and writing, where they recognized that fluent reading is a process of instantly matching the words on the page with the dictionary of spelling in the brain and fluent writing is getting thoughts on paper (Gentry, 2004; Paulesu, 2001; Willingham, 2015). According to Berninger and Fayol (2008: 234), spelling is a code that uses letter sequences to represent specific words that have an associated pronunciation and meaning within the mental dictionary, they identified three types of codes contribute to spelling: (1) a phonological code (coding and awareness of sounds in spoken words); (2) an orthographic code (coding and awareness of letters in written words); (3) a morphological code (word parts at the beginning of words that modify shade of meaning and at the end of words that mark tense, number, or part of speech). Similarly, Ehri (2000) stated that spelling reflects more advanced linguistic knowledge, because it requires the critical integration of phonological, orthographic, and morphological knowledge.

Recent studies referred to spelling as a critical and important component due to different reasons such as communication, literacy, and employment. In this respect, Burns et al., (2005) looked at spelling as a cognitive linguistic process and he also emphasized on its

relation to reading. Being on the same track, Ritchey (2008) said that spelling has a large impact on students reading fluency and reading comprehension. Moreover, Snow et al., (2005) argued that spelling and reading build and rely on the same mental representation of a word. Therefore, knowing the spelling of a word makes the representation of it sturdy and accessible for fluent reading. More to the point, the correlation between spelling and writing skill has been deeply discussed in a number of studies such as DOE (2001) who stated that spelling is the crucial part of written communication and is seen as an important tool in writing. Croft (1983) also argued that the learning and teaching of spelling should take place as far as possible within the context of writing. In contrast, Graham et al., (2002) believe that learner's literacy is assessed by teachers based on his/her ability in spelling correctly in every day written communication. Therefore, it is important that spelling should be taught and assessed.

2.3.1 Teaching Spelling

According to Henry (2003), spelling is a linguistic skill and must be taught in the context of English language. It has a crucial place in every teacher's crowded instruction schedule (Reed, (2012). Spelling is a visual memory, and it is mainly learned by memorization. Repetition and memorization are the major keys in the process of learning spelling (Treiman & Bourassa, 2000). Furthermore, Bailet (2004: 8) pointed out "Explicit teaching of spelling is important to the development of effective spellers" because, it is not intangible gift that some people have and others do not (Adoniou, 2016).

Recent studies such as Fresh et al., (2003) emphasize that most of the teachers and schools continuously regard spelling as an integral part of any educational curriculum, e. g: almost all of American's elementary schools teach and assess their students spelling abilities. One

of the ideal methods to teaching spelling which recommended by the department of education and science is co-teaching, it requires two teachers in the same class; then, the co-teacher will be able to share their experts, and such kind of teaching requires a careful planning and preparation to be implemented (Murawski, 2012). This might be because, children are not just need to memorize how words are spelled, but also need a systematic spelling instruction to learn how writing system works (Treiman, 2018). In contrast, Wolf (2008: 387) states that “The more children understand about the structure of words, the more fluent and efficient their spelling will be”.

2.3.2 Assessing Spelling

Spelling assessment is important to the improvement of spelling. Using a useful and appropriate approach helps the teacher to understand whether students can spell in authentic communication tasks, and which of the spelling knowledge they use successfully and which they struggle with (Templeton, 2003). Moreover, it has been argued that “existing measures of spelling performance are not sufficiently structured or standardized” (Kohnen et al., 2009: 50). This means that there is still a need to further our current understanding of how to assess spelling ability (Treiman, 2017). More recent research such as Karing et al., (2011) suggests that global judgments of teachers have higher accuracy than task-specific judgments. According to (Templeton, 2003:48), “One well-constructed spelling assessment, teachers can determine students’ level of spelling knowledge through the identification of types of words and patterns that are most appropriate for spelling study”. In fact, the most important information teachers need to be aware of are the students’ writing skill and spelling strategies they use, and these can be obtained by watching students in action while writing, analyzing work samples and talking with them about their insights in the processes of spelling (Westwood, 2005).

2.4. Approaches to Spelling Instruction

Traditionally, a number of approaches have been adopted by a number of teachers to enhance the learners' understanding of English spelling. In her research, Berger (2016) highlighted the significance of the historical approaches to spelling instruction, which were categorized by Schlagal (2002) and Walla (2006) into three paradigms. Berger looked at these approaches as the best guide for teachers to adopt in their spelling programs; where, the traditional approach was the most common and oldest approach that characterized by weekly tests and the assessment is authentic, coming from students' daily writing. In contrast, the students-oriented approach was the more recent paradigm. This approach has not curriculum that most words are learned incidentally; whereas, developmental or transitional paradigm focused on both assessment and the students' need, and that as Schlagal et al.,(2002: 57) explained "The developmental approach connects word study with a students' reading and writing using direct and explicit teaching".

Another research conducted by Reed, (2012) showed that the most three common approaches to spelling instruction involve classroom practices that might reflect one or more of the different beliefs about spelling. He (2012) introduced these approaches as follows: Whole-word spelling instruction, Phonemic spelling instruction and Morphemic spelling instruction). In their research findings, Bowers, et al., (2017) suggest five approaches to teach spelling by breaking down rules in ways that will create last understanding. These approaches are: study the origins of words, create neologisms to teach spelling, perform contraction surgery, get pupils to spot irregular verbs and mark by the letter.

2.5. Effective Strategies to Monitor Spelling

Spelling learning strategies are considered as methods or actions learners use when encountering new words (Ismaiel et al., 2018). They highlighted the strategies suggested by (Anderson, 1987) which the spellers might employ such as: the sound, rules, analogies, words related in meaning or structure, dictionaries, visual information, and error classification scheme. Similarly, Al Bulushi (2016:63) mentioned some strategies such as: the use of syllabification, spelling rules, body activities, dictionaries and technology. In contrast, Rippel (2009: 77) suggested four categories of spelling strategies: phonetic, rule-based, visual and morphemic; whereas, Malone, (2004: 66) identified four spelling strategies which are letter rehearsal, over-pronunciation, comparison of the remembered and the correct spelling, morphological analysis and visualization.

In their research findings, Bosman et al., (2017: 93) explained different types of meta-cognitive aspects: strategy –instruction, strategic-monitoring, self-monitoring, or control condition, and throughout these aspects students became more accurate at assessing which words they could spell correctly. According to Oakley, G. et al (2018: 1), in most of spelling learning programs, teachers depend upon a range of spelling strategies in order to appeal to a variety of learning styles. They identified this range as follows:

. Revise, teach, learn, practice and assess.

. Look, say, cover, write and check.

. The use of memory strategies.

. Identifying syllables in words in order to break words in to smaller parts.

. Identify root words e. g (smile – smiling – smiled).

. Analogy- using words already known to help spell new words,e. g could, would, should.

. Mnemonics- Making up sentences to help remember the spelling of a word.

- . *Finding words with in words.*
- . *Making links between the origin of words and their spelling (etymology)*
- . *Using word banks and dictionaries.*
- . *Learning different spelling patterns and investigating new spelling rules.*
- . *Linking hand writing to spelling and phonics, in order to develop a visual memory to aid spelling.*

Moreover, Oakley et al., (2018:23) added other strategies that can be applied in everyday writing at every given opportunity. They went on saying that these strategies enable children to embed spelling patterns and rules. These strategies are: ‘*Word of the week*’, ‘*Topic words*’, ‘*Word games*’, ‘*Glossary sheets for science vocabulary*’, ‘*Word trees*’ and ‘*Personalized dictionaries*’. The researchers believe that teachers might be aware of a variety of strategies, activities and learning styles to deal with students with different background knowledge while teaching.

2.6. Types of Spelling Errors

Spelling errors categorized as mechanical errors which include punctuation, spellings and capitalization (Kato, 2006). It has become increasingly difficult to ignore the importance of spelling (Alsaawi, 2015) and that appears in its correlation with some skills. In this regard, Zahida et al., (2014:97) indicate that:

Writing is an essential for English learners because it enhances their creativity and develops their critical thinking, it is a method used by learners to transfer spoken language from being heard to being seen. And because spelling is the learner’s ability to write a word correctly.

A massive amount of research was concerned with the source of errors and what are the most types of spelling errors commonly made by English learners. The researchers

classified the errors into a number of types, for example Kyte (1958: 49) identified six types of spelling errors, namely (addition, omission, inversion, substitution, pronunciation errors and miscellaneous). Whereas, Wing and Baddeley (1980) and Cook (2004) classified spelling errors into eight types: (addition, omission, substitution, transposition, grapheme substitution, word space and capitalization). Being on the same track, Cook (1999: 240) categorized spelling errors into four types: “omission, substitution, insertion and transposition”. More to the point, recent studies such as YanYan (2015:29), divided spelling errors into two types, namely typographic errors and cognitive errors. The former includes errors such as letter insertions, letter omission, letter substitution, and transpositions; whereas, the cognitive errors stems from phonetic similarities such as writing academy.

2.7. Spelling Development Stages

This section discusses the process of spelling learning that learners go through. Spelling ability is classified into a particular development stages and that was clearly explained by Ehri (2015) who stated that developmental spelling research describes this growth as a continuum or a series of chronologically ordered stages or phases of word knowledge. Moreover, Helman, (2004: 72) explained that “spelling ability advances through a series of interconnected stages, each stage reflects the children’s existing knowledge about speech sounds and the specific strategies they are utilizing in their spelling”. Whereas, Basner (2011:89) argued that spelling development stages are different layers of information, and it is important to find out what students know about these layers, because knowing such layers enable the learner to determine where teaching should begin; and, these layers are: (a)alphabetic layer;(B) pattern layer;(C) meaning layer. Furthermore, West wood (2005: 18) divided spelling development stages as follows:

a) The pre-phonemic stage is marked with the child imitating writing by copying down or inventing random strings of letters. b) In early phonetic stage, the child begins to use incidentally acquired knowledge of letter names and sounds in an attempt to write words. c) The phonetic stage is marked with child's more accurate use of regular sound-symbol relationships. d) Transitional stage is characterized the phase in which students have acquired a much more sophisticated understanding of word structure. e) The final stage is independence stage where students are competent and can make use of a very wide range of strategies for checking and self-correcting words.

In contrast, Invernizzi and Hayes (2004: 217) introduce other stages which are: (non-phonetic stage, semi-phonetic stage, phonetic stage, within word pattern stage, syllable juncture stage, and derivational constancy stage). It was also stated by the same author that teachers might examine and assess students' progress more accurately during these stages considering implications for classroom instruction.

2. 8. Connectionist Theory

Connectionism theory is based on the principle of active learning (William, et al 1990). This theory emerged in the mid of 1940s, whereas McCullough and Pitts (1943) showed how individuals neurons could be viewed as simple computing devices. Horgan et al., (1991) stated that connectionism is an approach to modelling perception and cognition that explicitly employs some of the mechanisms and styles of the processing that is believed to occur in the brain. Moreover, connectionist theories are typically instantiated as computer models that are computer programs that simulate how activation propagates through the system of interconnected units specified by the theory (Seidenberg, 1993). In fact, there is a great connection between phonological route and orthographic route, which is named as

amalgam (Ehri, 2000). Ehri (2000:22) went on saying, “when readers see and pronounce words, their knowledge of alphabetic system is activated and computes connection between grapheme in the spellings and phonemes detected in the pronunciation of the words. Repetition of this process a few times bonds the spelling of the word to its pronunciation and meaning in memory, forming an amalgam”. Not only that but also, the research in another study confirmed that the connection forming process plays a role in learning to spell irregularly spelled words as well (Ehri, 1997). In the current study, the researcher aims to find out if students are able to write words without committing spelling mistakes.

2. 9. Error Analysis Theory

Error analysis is the alternative theory to the Contrastive Analysis (Alhaysony, 2012). This theory becomes known in the late 1960s as an investigation of the language learning process. It emerged to deal with learners’ errors as feedback opportunity for researchers to determine learning strategies. Moreover, Al- Khresheh (2015) argued that error analysis theory has an essential role in investigating, identifying and describing students’ errors and their causes. It involves a systematic description and classification of L2 errors contained in a sample of a learner’s speech or writing. Al- Khresheh added that there are two main purposes of error analysis, the first one is “to provide data from which interference about the nature of the language learning process can be made”. The second one “indicates to teachers and curriculum developers which part of the students have most difficulty producing correctly and which error type detract most from a learner’s ability to communicate” (ibid,2016:59).

In addition, error analysis theory has a number of implications for handling the learners' errors in classroom. Ali (2012) stated that these implications are summarized as follows: devising remedial measures, preparing a sequence of target language items in classrooms and text books with the difficult items coming after the easier ones and making suggestions about the strategies of second language learning employed by both first and second language learners. The study of errors analysis is used in order to (1) identify strategies which learners use in language teaching; (2) identify the causes of learners' errors, and finally (3) obtain information on common difficulties in language learning as an aid to teaching or in development of teaching materials (Khansir, 2008:16). It was also stated by same author that error analysis is useful and significant to know learners' errors and problems in second language learning because they will be exposed to the teachers, syllabus designers and textbook writers. Analysis of second language learners' errors can help to identify their linguistic difficulties and needs at a particular stage of language learning.

2.10. Spelling Difficulties and Causes

In order to improve students' writing skills, their spelling difficulties and their causes should be recognized. Due to the complexity of English, it is very difficult to learn about the relationships between letters and sounds and that might cause significant spelling difficulties in all development stages of learning (Moats, 2006). In fact, knowing specific signs of spelling difficulties is important for teachers (Schaffler, 2007). By the same token, Kuiper and Allan (2004: 20) argued that:

spelling difficulties based on three reasons: a) We interpret words as sequences of sound segment rather than as continuous streams of sound. B) The number of letters in the written version of a word and the number of sound segments in spoken

version are not necessarily the same. C) Sometimes the same word can be pronounced with different sequences of sound segment.

In addition, Ahmed (2017) reviewed a number of causes identified by many researchers such as: Bahloul (2007) and Al Hassan (2011) and confirmed that one of the potential causes is the irregularities of the English spelling system, and this means that the way English words are spelt is complex and inconsistent. Whereas, Berkel (2005) indicates that the differences between the learners' L1 and L2 languages represent the main causes, for instance it is difficult for L1 speakers to pronounce or spell at phonological level the consonant sound which is non-existent in the L1 (Muvindi, 2013). Moreover, Chomsky's (1959) hypothesis in which he said that most second language learners tend to add a certain letters which are not required. Vaddapalli (2012:273), also stated that the "lack of phonemic awareness of English sounds is one of the main reasons of spelling problems". In contrast, Al-Jarf (2010) deemed the interference of mother tongue as the commonest causes and that when students borrow the patterns of L1 from the mother tongue to the target language they learn. Additionally, (Babkoff, 2005) who considers the origin of English language as the main cause of spelling mistakes; he points out that the developments which later occurred in sciences whereby terms were created using Greek and Latin.

Furthermore, other causes were identified as extrinsic (outside the learner) and intrinsic (within the learner) causes (Schaffler, 2007: 201). These causes are explained as follows:

A) extrinsic causes: Ineffective teaching methods.

. Not enough time spent on teaching spelling.

. The assumption of some educators that spelling rules should have been mastered in the preceding grades already and therefore need not be attended to in the current grade.

- . *Not enough time in class for spelling control.*
- . *Ineffective language education in mother tongue in the home by primary caregivers.*
- . *Ecosystem factors. e. g poverty, travel, distances to school, poor learning facilities in the home, family disruption, etcetera.*

B) Intrinsic causes:

- . *The learner has no self-confidence in his own spelling ability.*
- . *No interest in writing in general and as a result of no motivation to spell correctly.*
- . *Fear of failure and stress.*
- . *Poor knowledge of language structure (morphology, phonology, syntax, phoneme/grapheme relation) in mother tongue as well as FAD.*
- . *Limited vocabulary.*
- . *Poor cognitive control (meta cognition) of own writing and spelling processes and products.*
- . *Poor perceptual skills, visual and auditory.*
- . *Physical barriers, i.g. learners with cerebral palsy, etcetera.*

Bowen (2011) conducted a study on Emirati students' writing and found that students have a tendency to add an extra vowel sound to certain words. She asserts that such epenthesis might have resulted as an attempt to make pronunciation of words easier. She further reported that there was a frequent omission of vowels which might be due to the students' tendency to omit weak or silent vowels. The absence of written vowels in Arabic text might have led students to guess words in English inaccurately and hence affected their spelling skills.

Previous literature also shows that one of the difficulties that Arab learners face is that Arabic language has a different direction from English and other orthographies i.e. it reads

from right to left. In fact, many Arab learners transfer their previous knowledge from their mother tongue into English (Cook, 2004; Fender, 2008). Another essential reason that causes different problems for Arab learners of English is that Arabic is a consonant-based alphabetic system (Cook, 2004). In Arabic, all the pronounced letters have written equivalents. Thus, English words with silent letters often cause troubles for the learners.

According to Crystal (2012: 3) “English spelling would seem to have been designed chiefly as disguise for pronunciation”. English spelling and English pronunciations are foe and strangers to each other, pronunciation are sometimes affected by the way in which a word is. He also indicates that the pronunciation of English words naturally sound different from the spelling, because English language has borrowed words and expressions extensively from many languages throughout its history. V. Chandra Sekhar Rao (2018) explained, learners of English language should understand that words from other languages may be adopted without being adapted to the spelling system and different meanings of a word or homophones may be deliberately spelled in different ways. All of them are advised to consult an English pronouncing dictionary for better understanding of spelling and pronunciation of the words that are unfamiliar or confusing.

2.11. Previous Studies

Al-Jarf (2005) stated that studies related to Arab spelling errors are few. However, a number of researches investigated the issue of spelling, for example, Al-Zyoud and Kabilan (2013) who examined spelling mistakes made by 43 learners of English in written composition. To collect the data required they utilized a writing task and interviews with teachers. The findings of the study revealed that most of the spelling errors were substitution and omission errors, and the participants’ significant problem was using words

appropriately in their writing. The researchers suggested a number of strategies that can be utilized by teachers to help their students to be good spellers.

Al-Ta'ani (2006) investigated the spelling errors of 200 students' writing at the secondary stage in the United Arab Emirates. After classifying and identifying the location of spelling errors in the words, the findings indicated that most spelling errors occurred in the middle of misspelled words. A similar study was conducted by Al-Jabri (2006) on 114 Omani fifth-grade students in two rural schools to investigate their spelling errors. 10 - Word spelling test was utilized to collect data required. The findings revealed that omission and substitution were the most frequently used, while transposition and insertion errors found to be least frequently used.

Another study conducted by Al- Karaki (2005) who investigated the spelling errors produced by students in the 8th and 11th grades in Jordan. The researcher emphasized the importance of identifying the causes of errors in addition to their types. She identified six types of errors (Addition, Omission, Substitution, Segmentation, Disordering, and Miscellaneous), and she confirmed that most of the errors detected were concentrated in omission, substitution, and addition. According to Al-Karaki, the main causes of spelling errors are pronunciation errors, errors caused by the differences between the sound systems of English and Arabic, errors which might be attributed to analogy or generalizing a rule, errors caused by the inconsistent and arbitrary nature of English word derivation, errors attributed to the incomplete application of English spelling rules, or the lack of knowledge of the exceptions of spelling rules, and errors that can be attributed to performance factors like tiredness, carelessness, and boredom.

A study conducted by Al-Jarf (2005) to investigate the correlation between spelling and listening comprehension among students in Saudi Arabia. The findings revealed that EFL students' percentage of spelling errors found to be 41.5% of the words with 49.5% correct responses to the questions in the listening comprehension test, and with 52% correct answers on the decoding test. This indicates that Arab students' spelling errors were found high due to the existence of linguistic differences in both languages English and Arabic while spelling errors were found to be less among other non-Arabic students as their languages share more similarities with English.

Al-Jarf (2010) examined the causes of English spelling errors committed by French speaking students and the study was based on eight selected aspects of spelling skill. The purpose of study was to identify and classify causes of spelling errors; another aim was to explain the probable causes of such errors. Diagnostic test and dictation were the tools used in order to collect the data. The research showed that the rest of the aspects need a short term effort for remedial teaching. The results revealed that the incorporation of explicit spelling rules in the teaching of ESL or EFL in French speaking community, like the Comoro Island, would be needed.

Furthermore, Al-Jayousi (2011) investigated how big the spelling problems is among Arab learners of English in UAE public schools. The main purpose of the study was to identify the commonest types and causes of students' spelling errors. Another purpose was to investigate teachers' perceptions of the spelling problems of Arab learners of English, attitudes towards teaching spelling, and practices in spelling. Students' spelling errors were collected and analysed from compositions written by over 537 male students; whereas, 'teachers' perceptions, attitudes and practices were investigated by using

questionnaires and interviews. The findings obtained showed that the frequency of spelling errors in students' written production is high and the teacher survey and interview results demonstrate that little attention is given to this problem. Additionally, some teachers showed misconceptions about the nature of spelling problems, their causes and effective ways of responding to them.

Alhaisoni et al., (2015) carried out a study on 122 EFL undergraduate students at the University of Ha'il in Saudi Arabia to examine the types of spelling errors in English composition. They collected their data through writing tasks. The findings showed that omission errors were considered the highest among students. The majority of spelling errors were centralized around wrong use of vowels and pronunciation. The findings also revealed that spelling errors occurred as a result of anomalies existing in L2 as well as L1 interference.

2.12. Summary of the Chapter

This chapter discussed many issues related to spelling errors. In this chapter, a related previous literature was reviewed to find out why spelling is important and what spelling methods, techniques and rules English learners must follow in their learning programmes. The next chapter discusses the research design and the instruments that have been used to collect the data required for the study in hand.

Chapter Three

Methodology

3.0 Introduction

The research in hand was mainly designed to investigate and specify the most common types of spelling errors committed by 4th year students in the English Department at University of Zawia. This chapter provides a description of how the research is designed to address the research questions. It also demonstrates the research design and describes the methods of data collection. Moreover, it explains the pilot study and the process of sampling. In addition to ethical issues a summary of the whole chapter is provided.

3.2. Research Design

A well designed research provides accurate and reliable findings and following a systematic process of data collection and data analyses requires an accurate design of the study (Greene et al., 1989). In literature, research design defined as “a one-phase design in which researchers implement the quantitative and qualitative methods during the same timeframe and with equal weight” (Clark et al., 2003:40). Therefore, both quantitative and qualitative methods were adopted in this study. Based on the purpose and aims of the study, the researcher believes that triangulation design is the most appropriate and effective technique, as it is usually used when “a researcher wants to directly compare and contrast quantitative statistical results with qualitative findings or to validate or expand quantitative results with qualitative data” (Greene et al. 1989:13). Using multiple research methods is a very beneficial way to obtain valid and reliable findings.

Furthermore, two tools were employed in the study, a writing task and semi-structured interviews. In fact, semi-structured interviews conducted in order to complement the

findings of the survey (writing task). The students were tested by the researcher with the help of one of the teachers who was teaching the students the writing subject. The teacher introduced the students to the midterm exam. Many topics were offered on midterm exam paper, and students were free to choose any topic they like. The time allowed for the exam was two hours, and the students were not informed that their papers would be utilized as a sample of the study. Semi-structured interviews were conducted with four students in order to find out the difficulties that the participants usually encounter while writing. Four teachers were also interviewed in a semi-structured way to explore the methods and strategies they usually apply in class to overcome or minimize the spelling errors in their students' writing.

3.3. Data Collection Instruments

In this research, quantitative and qualitative data collection methods were employed. Thus, two data collection; students' writing compositions task test and semi-structured interviews with students and teachers are described below.

3.3.1. Writing Task Test

Writing task was used to test students in order to know if students commit spelling mistakes or not. It defined as a memory tasks directs to recognize or reproduce information that they have seen before [e. g. recall a list of terms] (Richard et al., 2011). This instrument was employed by Mohammad and Abdalhussein, (2015) in their studies to collect similar data. This instrument was used because it reflects the students' natural performance. Tasks can be created even during a class- or created a head of time and saved for later purposes (Oyedepo, 1987). In this study, students were asked to write an essay about one of these topics, in not less than 150 word: a) *the advantages and disadvantages of the internet*, B)

two sports that you like to do, c) two cities that you know, d) two movies/ books that you enjoyed. Sixty of midterm papers were used as the main tool to collect the required data.

3.3.2. Semi-structured Interviews

Two types of semi-structured interviews were employed in the study. The first one was with students in order to determine the difficulties they encounter while writing and the second interview was with teachers in order to know about the strategies and methods using in their class. A semi-structured interview consisted of a set of pre-prepared questions with an open ended format to encourage the interviewees to give more details on the issues under investigation (Dornyei, 2007). Seven mainly open-ended questions were designed for students and other seven different interview questions were planned for teachers. Shazia Jamshed (2014: 87) explained “in order to have the interview data captured more effectively, recording of the interviews is considered an appropriate choice but sometimes a matter of controversy among the researcher and the respondent”. Whereas, when the interviewer write the notes during the interview comparatively unreliable and the researcher may forget to write some important points. Therefore, the data gained from the interviews were recorded, transcript, hand written and analyzed.

3.4. Pilot Study

One of the primary stages in every research project is a pilot study. It is considered as “a small study to test research protocols, data collection instruments, sample recruitment strategies, and other research techniques in preparation for a large study” (Hassan et al., 2006:3). Both data collection tools were piloted in this study. Piloting the writing test was used to identify if there were any misunderstanding, ambiguities, unclear and useless questions. Administrative approval received from the head of English department to

conduct the pilot study. The researcher met the teacher of writing and get a number of quiz papers in order to double check these papers and see if the students committed spelling mistakes or not.

Furthermore, the semi-structured interviews with both students and teachers were also piloted. To meet the research aims and provide detailed answers to the research questions, seven questions were constructed by the researcher with the help of the supervisor. The researcher discussed the interview questions with three 4th year students to check their structure, length and clarity and to see if they were interested to find possible solutions for the spelling issue. The participants' responses were motivating and assured their interest in this issue. Due to the feedback obtained, some modifications were made to questions two and five. Both questions were reformed to be clearer for participants. Additionally, six open ended interview questions adopted from a previous research conducted by, Al Jayousi (1994). According to Al-Jayousi's findings, little attention was given to the issue of spelling errors in addition to insufficient of spelling activities in textbooks adopted. After piloting the interviews, the researcher asked the participants about the structure, the order, and the logical flow of questions, and their responses were motivating and encouraging. It is worth noting that one of teachers suggested to combine the last two questions into one, and the researcher therefore did the modification needed.

3.5. Sample of the Study

Sampling is defined as "group of participants whom the researcher actually examines in an empirical investigation" (Dornyei, 2007:96). The researcher intended to test all 4th year students in order to identify the actual errors committed. The quantitative data of the study incorporated (60) mid-term writing exam papers. The research sample included 4th year students from the department of English, Faculty of Art at the University of Zawia,

academic year (2020). The total number of 4th year students at the intended university was 60 male and female students, their age ranges between 22 and 24. To collect the qualitative data required, four students were chosen randomly to be interviewed. According to Adams (2015:5), “if the group a large one, researchers ordinarily choose to interview a manageable random sample or stratified random sample”. Moreover, four teachers with different teaching experience were also chosen in purpose to be interviewed. The sample included the teachers who were teaching the writing subject at Zawia University. In order to get more detailed information about the techniques and strategies used in teaching spelling, a purposive sampling technique was employed to select those teachers. According to Adams (2015), this is the most effective sampling technique that has a clear criteria and rationale for inclusion.

3.6. Data Collection Procedures

The study conducted between the 5th of April and the 29th of September 2020 in very hard circumstances because of corona virus. After obtaining the administrative approval from the head of English department for conducting study, the researcher met the teachers who were teaching the writing subject to 4th year students. The purpose of that meeting was to obtain their agreement to be the research participants. The researcher managed to obtain permission from the teacher of the writing subject to use the mid-term papers as a research tool to collect the spelling mistakes committed by students. It is worth noting that none of the students knew that their exam papers would be under investigation. These exam papers were manually collected and scored by the teacher and then corrected by the researcher in order to collect the number of spelling errors. These errors were marked by red pen and reviewed by the teacher. The time of the exam was two hours and none of students were allowed to use dictionaries. This method has been applied by Al-Zuoud and Kabilan,

(2013) who examined spelling mistakes made by 43 learners of English. The researchers managed to collect a total of 228 spelling errors that occurred in 43 written papers.

The researcher carried out a number of semi-structured interviews with students to explore the difficulties that they might encounter whenever they write in English. Seven open-ended interview questions were constructed and formed by the researcher with the help of the supervisor. Four students were interviewed in different times and days. In addition, more semi-structured interviews were conducted with the teachers of the writing subject to investigate the strategies and methods they applied in their classes. The interview questions list designed according to the purpose and the research questions of the study. At the beginning of each interview, the researcher introduced herself to the interviewees in a friendly manner. Then, the interviewees were reminded with the topic and the aims of the study and were reassured that the data they would provide would be anonymous and would be dealt with high confidentiality. Then, the researcher administrated the interviews in formal settings, every teacher was asked separately and some interruptions were made the researcher to ask some more questions in order to gather a more detailed information. The researcher continued interviewing the participant still the point of saturation has been attained.

3.7. Ethical Issues Consideration

The basic principles of ethical research were the informed consents, and issues of privacy and confidentiality were considered in this study. Informed consent means that “a person knowingly, voluntarily and intelligently, and in a clear and manifest way gives his consent” (Bolderston, 2012:76). Regarding the issue of reliability and validity, the researcher insisted to gain informed consents and follow a well systematic

procedures and design. In fact, there are three important elements in the research “the competency of the researcher, the careful design, and worthwhile expected outcomes” (Jameton 1984:9). During the stage of data collection, the researcher took a permission for doing her study from the college administration. Although the information was collected in a complete confidentiality, the participants were allowed to omit the intended statements or retract at any time. This step was taken to avoid putting pressure on the participants. Furthermore, the researcher informed the participants individually that they could withdraw at time if they felt that they were not interested to continue. The participants were also assured that their names would be invisible throughout and after the research time. The researcher believes, honesty is one of the characteristics of a good researcher.

3.8. Summary of the Chapter

In a detailed manner, this chapter discussed the research design, data collection tools, pilot study, sample of the research, the procedures and the ethical issues. The data obtained will be analysed and explained in the following chapter.

Chapter Four

Data Analysis

4.0. Introduction

This chapter presents the actual process of analysing the data collected from the research participants. "Data analysis involves organizing what you have seen, heard, and read so that you can make sense of what you have learned" (Glesne & Peshkin, 1992:127). The researcher utilized SPSS software for analysing the quantitative data and thematic analysis method for the qualitative data. The errors detected were numbered and categorized according to their types and presented on table (4.1). Statistical analysis is concerned with "the organization and interpretation of data according to well defined, systematic and mathematical procedures and rules. It provides a method for systematically analysing and drawing conclusions to tell a quantitative story" (Elizabeth, 2016:29).

In contrast, the qualitative data collected were analysed thematically because the interviewees showed different views, beliefs and responses towards the spelling issue. Thematic analysis theory is a method of analysing reporting themes within qualitative research data (Braun and Clarke, 2006). The responses of the interviewees were first recorded and transcribed separately; then, discussed as one theme. This process was really laborious and time consuming. Thematic analysis method can be used with a variety of research designs. It is usually applied to set of texts such as interview transcripts. It is very useful to find out something about people's views, opinions, knowledge, experiences or values from a set of qualitative data (Jack Caulfield, 2019). As it has been stated earlier, the errors were accurately categorized according to their types, then listed and presented on tables.

4.1. Quantitative Data Analysis

In literature there are different frameworks to analyse this type of data; however, the researcher classified the types of spelling errors committed according to their nature. A Atatsi and Amoakohene (2019: 244) stated “This classification has widely been used in the literature as a framework to analyse spellings challenges of students from different geographical settings and at different levels of academic ladder”. Consequently, the framework used to classify the students’ spelling errors in this study was a mix between Cook’s (1999) classification of spelling errors which includes four types (*Omission, Substitution, Insertion, and Transposition*) and Al-Karaki’s (2005) classification which includes six types of spelling errors, namely(*Addition, Omission, Substitution, Segmentation, Disordering, and Miscellaneous*).

In this study, a number of analytic procedures were carried out to analyse the data collected from the writing mid-term task exam. First of all, the researcher checked carefully for the writing tasks which were scored analytically by the teacher. Moreover, the number of spelling errors were identified and counted in each piece of writing. After that, the researcher classified the errors into four main types: (1) Omission: deleting a letter or more in a word; (2) Substitution: substituting a letter or more for another; (3) Addition: adding a letter or more to a word; (4) Disordering: refers to disordering some letters in a word. It is worth noting that this categorization is different from cook’s classification in just two types.

4.1.1. The Main Types of Spelling Errors

The total number of spelling errors obtained with their percentages are categorized according to their types as illustrated on table (4.1) below:

Table 4.1 Types of Spelling Errors

Type of Errors	Number of Errors	Percentages
Omission	49	20.4%
Substitution	38	15.8%
Addition	15	6.3%
Disordering	18	7.5%
Total	120	50.0%

As table (4.1) shows that the omission errors were 49 with a percentage of 20.4%; whereas substitution errors were 38 with a percentage of 15.8%. In contrast, addition errors were 15 errors with a percentage of 6.3% and disordering errors were 18 errors with a percentage of 7.5%. The total number of errors committed by students in their written essays was 120 errors with a percentage of 50.0%. Significant differences were noticed between the types of errors committed in terms of number percentage. By a descending order, omission errors were at the top with a percentage of 20.4% followed by substitution errors with a percentage of 15.8%, disordering errors with a percentage of 7.5% and addition errors with a percentage of 6.3%.

4.2. Qualitative Data Analysis

This section displays the process of analysing the data obtained from the interviews. Eight semi-structured interviews were conducted with students, and their teachers in equal balance. In order to meet the research objectives, the interviews were first conducted with the students then with their teachers. The researcher created a series of analytic notes while reading and rereading the data collected such as key ideas, words, and phrases of each participant. Thus, the thematic analysis method was adopted. Conceptual framework of the qualitative data analysis is designed as follows:

Table. 4. 2. Conceptual Framework of the Qualitative Data Analysis

Conceptual Framework of the Qualitative Data Analysis			
Theme	Students' Interviews	Theme	Teachers' Interviews
1	Students' awareness of the importance of spelling	1	Teachers' awareness of the importance of spelling
2	The importance of dictation to improve spelling	2	Teachers' techniques of teaching spelling
3	Avoidance of using some words while writing	3	Using alternative methods to address spelling
4	Using reading texts to improve spelling	4	Lack of spelling exercises in the textbooks
5	Students' knowledge about the types of English spelling errors	5	Awareness of specific difficulties
6	Difficulties students encounter in spelling English words	6	Teachers suggestions to overcome students spelling words difficulties

4.2.1. Analysing Data gained from Students' Interviews

The data gained from interviewing the students were analysed and categorized into a number of interesting themes. These themes are analysed as follows.

Table. 4. 3. Themes obtained from students' interviews

Theme	Students' Interviews
1	Students' awareness of the importance of spelling
2	The importance of dictation to improve spelling
3	The avoidance of using some words while writing
4	Using reading texts to improve spelling
5	Students knowledge about the types of English spelling errors
6	Difficulties students encounter in spelling English words

Students' awareness of the importance of spelling

According to the data gained from the students' interviews, all the participants were fully aware the importance of spelling. In this regard, student 'A' said, *"spelling is important because the pronunciation of some letters is not the same as it written and pronunciation of some words is not as we write it, e.g. (g, w) we can write it in same words but we cannot pronounce it, I mean silent letters like in (yellow and right)*. Student 'C' also argued, *"spelling is very important because there are words different in just one letter and sometimes if words miss just one letter will give another meaning"*. By the same token, student 'D' confirmed the importance of spelling by saying, *"it will help me to speak, write, how to spell words and improve my English"*. Student 'B' also assured the importance of spelling because *"may single letter change in a word will change all the meaning of a word"*. This reflects the students' high interest in learning English spelling.

The importance of dictation to improve spelling

Dictation is addressed as an important technique to find out if students are good at spelling or not. Teachers believe that dictation can help students to improve their spelling. However, the findings obtained revealed that not all students were in agreement with that. In this respect, students 'A' and 'D' supported using dictation to improve their spelling whereas students 'B' and 'C' did not. Student 'A' stated *"one, two, three times I will learn better and I will learn from my error and I will be good writer"* likewise, student 'D' stated *"when teachers force us to write, we will be good spellers because I cannot learn without pressure. But at home I will not have this chance to write, through dictation one word will write it many times and I will learn its spelling. It is one of methods which lead students to be good spellers"*.

In contrast, students ‘B’ and ‘C’ were in disagreement that dictation is a good strategy to learn spelling. As an example, student said, *“it is difficult to remember the words quickly and may I will forget the word and I will be confused during dictation. It is not good way especially for poor students because they may find difficulties to remember each word they want to write”*.

The avoidance of using some words while writing

The likely way students use to prevent themselves committing spelling mistakes is avoidance of using words that they are not sure of their spelling. The findings obtained showed that all the participants confirmed practising this strategy, for example student ‘B’ said *“when I come to write some words I find difficulties in writing the long words and it is hard to remember how it write and the pronunciation of some words different from how to write”*. He also explained the reasons behind that by saying, *“missing practices and lack of interaction in class with colleagues, just the teacher goes through the intended lessons in the curriculum”*. Other participants reported using simple words that have similar meaning whenever they are not sure from their spelling. In this regard, students ‘A’, ‘C’ and ‘D’ stated that they use synonymous, simple words that have the same meaning. This can be attributed to the insufficient amount of vocabulary that offers them more flexibility in their writing. More importantly, it might also obstacle the students to express their ideas easily or convey the intended message clearly whenever they write.

Using reading texts to improve spelling

The findings obtained showed different views regarding using reading texts as an effective strategy to improve spelling. For example, students ‘B’, ‘C’ and ‘D’ were in agreement, whereas student ‘A’ was different. Being more explicit, students ‘B’ stated *“reading helps*

me so much in all my learning stages, while reading I see the same word many times, and then I will be able to memorize it and spell it easily” Students ‘C’ and ‘D’ added that the more they read the more their pronunciation of words becomes better and they learn these new vocabularies. In contrast, student ‘A’ believes that other skills are more helpful than reading. In her contribution, she said, *“reading text more than one time will be helpful but I think writing helps more in order to be good speller, and also listening can be useful”*.

Students’ knowledge about the types of English spelling words

The qualitative findings revealed that the participants did not know all types of English spelling words. Most of them categorized spelling errors as a package that includes punctuation, spelling and capitalization. For example, Student ‘B’ stated, *“I do not know about the names of all types of spelling errors”*. She also added *“our teacher never informed us about these types you stated”*. Moreover, student ‘D’ said *“I read about the spelling rules but I do not read about types of spelling errors”*. This indicates that these students have a limited knowledge about spelling rules, and the responsibility for that might be on their teachers.

Difficulties students face to spell English words

According to the research findings, the students expressed different views regarding the difficulties they face whenever they write in English. Students ‘A’, ‘C’ and ‘D’ emphasize the significant difficulties of spelling compound words. As an example, student ‘C’ stated, *“long words constructed from a number of morphemes and we have to divide the word to be able to pronounce it (e, g. international, information, communication) we cannot spell these words easily”*. Being on the same track, Student ‘A’ argued, *“I have difficulties to pronounce and spell a long words and I need to divide them to be able to spell them”*.

Analysing the data revealed that students 'B', 'A' and 'D' have significant difficulties with words containing vowels and silent letters, for example (psychology). In this respect, student 'B' said, *"it's hard to write words contain vowels and silent letters in the right way, therefore I always try to find synonymous of these words to be able to write it"*. More to the point, student 'D' argued, *"I have difficulty with spelling of words with the sounds of letters when you come to spell it is not as written in the word (e.g. the letters ph in photo)"*. Student 'C' also said, *"the differences between the L1 and the L2 languages respectively are one of the main causes of these difficulties"*. The absence of written vowels in Arabic text might have led students to guess words in English inaccurately. All the difficulties mentioned earlier indicate a significant shortage in the students' knowledge of spelling rules that might help them to overcome their spelling difficulties.

In addition, the findings obtained showed that the majority of students agreed that they face difficulties in spelling whenever they deal with new words. This can be attributed to, as certain students declared, the complete absences of any spelling activities in class throughout their first year. It can be concluded therefore, that the lack of practice and the overuse of the traditional methods of teaching, are among the main reasons of spelling difficulties. In this regard, student 'B' stated *"even when we had the phonetic and phonology rules in first and second year the only focus was on phonemic sounds and how to memorize them but not on practicing"*. This confirms that these students have problems not only in pronunciation and spelling but also in phonology, morphology and phonetics.

4.2.2. Analysing Data Gained from Teachers' interviews

Analysing the data obtained from interviewing the teachers came up with a number of interesting themes which are presented on table (4.4) below.

Table 4.4. Themes obtained from teachers' interviews

	Themes emerged
1	Teachers' awareness of the importance of spelling
2	Teachers' techniques of teaching spelling
3	Using alternative methods to address spelling
4	Lack of spelling' exercises in textbooks
5	The awareness of any specific difficulties
6	Teachers' suggestions to overcome spelling words difficulties

Teachers' awareness of the importance of spelling

The findings of the study revealed that most of the teachers emphasized the important of spelling. For example, teacher 'A' said, *"whenever students pronounce or write something wrong the conveyed message or the intended meaning will be received wrong by the listeners"*. Teacher 'C' illustrated *"writing depends on spelling because when the reader reads what the writer writes, the meaning is supposed to be clear"*. In addition, teacher 'D' who highly assured the importance of spelling, because students deal with it as an easy matter. Teacher 'D' said, *"every single mistake will matter because many words like 'effect' and 'affect' differ only in one letter. If the word begins with (a), it is a verb but if it begins with (e), it is a noun, and students do not know this and many of them do not want to care about it"*.

In contrast, the findings obtained showed that teacher 'B' considered spelling is not important and students learn it by time throughout the learning stages. He argued, *"language learning is like language acquisition, students write something many times, first time, second time, third time, etc. By time, students correct themselves and their spelling improves gradually just like the way we learned spelling in Arabic, we first have some mistakes in spelling, but when we make correction just something innate internal so it is like children learn second language so that is why I do not care about spelling."*

This indicates that every teacher has his/her own point of view and methods of teaching even though they are inappropriate. Thus, teachers should have intensive training sessions to help them be able to improve their students' spelling skill.

Teachers' techniques of teaching spelling

The research findings showed that the teachers have various views about using techniques for teaching spelling. For example, teacher 'A' said, *"I usually teach spelling whenever I see the pronunciation of the words being taught is negatively affected by the way they are pronounced."* She also added *"I go back to the rules I learned before about spelling in writing or in speaking"*. This implies that teachers teach spelling when they feel that students need to know more about spelling. While teacher 'B' stated, *"I teach spelling by filling gaps, I remove one sound from a word and ask students to write it, I just depend on a traditional way in teaching spelling"*. Furthermore, teacher 'D' said, *"I underline the misspelling words and put the letter (p) over the words to prevent them in a commit such mistakes to be committed next time"*. It was also said by the same teacher, *"I always ask my students to write the words and check their spelling"*. In addition, Teachers 'A' and 'C' stated that they ask their students to look carefully at each part of the words as they pronounce them and say the letters in a sequence. This implies that some of teaching techniques are continuously employed by teachers to tackle the spelling issue.

Using alternative methods to address spelling

The analysed data obtained from the teachers' interviews showed that each teacher has his/her own method in teaching spelling. For example, teacher 'A' stated that he uses direct feedback during class time to help students correct their mistakes immediately in either writing or speaking. Teacher 'B' was different by saying, *"I give my students more tasks*

related to writing essays, paragraphs, notes, reports which may help them to apply the rules of spelling". Furthermore, teacher 'C' stated, *"the only method I follow is teaching spelling through reading, and I believe through reading students will know the form of the words, how to write them, and the development of these words. Dictation is also very beneficial for students to improve their spelling"*. In contrast, teacher 'D' said, *"I use different methods, for example, games to be practised at home"*. He also added, *"I use traditional way, students are given sheets and a list of words to be written on them, however, I know other ways to teach spelling such as repetition, make use of websites to learn to spelling, memorizing more than three thousand words, and using CDs to know the pronunciation of these words"*.

Looking carefully at the findings presented above, confirms that the teachers of writing do not employ appropriate strategies and activities that improve students' spelling and consequently minimize their spelling errors.

Lack of spelling' exercises in the textbooks

According to the findings gained, there is a complete consensus among the teachers interviewed that very little attention is paid the issue of spelling in the textbooks they use. For example, teacher 'A' said, *"I teach fourth year students and there are not enough exercises related to spelling in their textbook, because I think they passed this stage"*. Teacher 'B' added, *"in vocabulary class, we have spelling section in the exercises but in reading and writing there is not, and the textbooks do not cover any of the spelling rules"*. Moreover, teachers 'C' and 'D' stated that most of textbooks do not cover spelling rules, and their focus is only placed on vocabulary. This indicates these teachers lack of spelling tasks in text books.

The awareness of any specific difficulties

The findings showed that there is a number of significant spelling difficulties that students usually encounter. In this regard, teacher 'A' said "*I think that the only and major problem is that students do not read very much*". While teacher 'B' talked about how students write letters in words as they hear them pronounced. She said, "*the letters(ph) in words such as photo or pharmacy. The (ph) is usually replaced by 'f', because the students do not know the rule that the letters (ph) are pronounced 'f'*". Moreover, teacher 'D' introduced more significant problems that students struggle with, for example the suffix (tion) is usually written (shen) or (shin) by them. One more problem is the presence of (a) in ball, some students pronounce it as (o) and write it (o). In contrast, only teacher "C" stated, "*the most problems students usually face are in grammar not in spelling*". She also went on saying, "*if students are introduced to sufficient writing activities, the possibility of committing spelling errors will be minimized*". This indicates that the teachers are aware of the difficulties their students might face in learning spelling.

Ideas to overcome students' spelling difficulties

To overcome spelling difficulties, the teachers interviewed suggested a number of interesting ideas, for example, teacher 'A' said, "*the English department should introduce spelling as one of the main subjects in the learning schedule in order to expose students to more exercises related to spelling. This helps students a lot not only in learning spelling but also in in conversation, and pronunciation*". By the same token, teacher 'B' suggested that "*teachers should add more exercises in reading and writing subjects related to spelling*". In addition, teacher 'C' considered spelling as a personal work by saying, "*I think spelling depends on students themselves*". Teacher 'D' added "*students can improve their spelling through writing and vocabulary classes*". This reflects the teachers'

awareness of the possible solutions of tackling and minimizing the spelling difficulties that students usually encounter.

4.3. Summary of the Chapter

This chapter presented the findings obtained supported with examples provided by the interviewees. Moreover, the quantitative findings, showed that four types of spelling errors were frequently committed by fourth year students, in addition to, a variety of other spelling difficulties that those students encounter. The findings gained also revealed insufficient use of teaching techniques and strategies to tackle the spelling difficulties that face their students. These results will be discussed in more details in the following chapter.

Chapter Five

Discussion

5.0. Introduction

Chapter four presented the findings obtained from the analysing of research data. In this chapter, the most interesting findings are presented discussed in relation to the research questions and the existing literature.

5.1. Types of Spelling Errors

This section discusses only the spelling errors committed by students. These errors are omission, substitution, addition and disordering. These errors are subsequently discussed as follows.

5.2.1. Omission Errors

In omission type, students omit some letters from words, because they do not know the actual spelling of the words. The findings revealed omission errors were 49 with percentages of 20.4%. This means that omission errors are considered to be the highest among students. The majority of spelling errors were centralized around wrong use of vowels and pronunciation. This leads to the conclusion that students omit some letters from words, because they do not know the actual spelling of these words (e. g. Indan – Indian; University- Universty). This could have led students to think that the vowels in these words best represent the articulation of the target words. In the case of writing these words, the students could have drawn on their orthographic knowledge, which was marked by their effort to correspond grapheme with phoneme. It can be concluded that most errors occurred due to the wrong use of vowels while writing, in the middle of the word and in

multi-syllabic words which all found to be consistent with Al-Ta'ani (2006) who confirmed that most spelling errors occurred in the middle rather than the initial or end of the words. This finding is also in line with Alhaisoni et al., (2015) who concluded that most errors occurred due to the wrong use of vowels rather than consonants.

According to the research findings, silent letters are another significant cause of spelling errors. Some words are difficult to be correctly spelled because they contain silent letters (voiceless). This means that silent letters create problems to the students when guessing accurate spelling of certain words in the target language, for instance students tended to omit the silent letter [u] in words like 'country' and league which became 'contry' and 'leage'. Students tend to omit the voiceless vowels [u] and [a] because they write the words as the way these words are articulated. This corresponds with Sterling's (1983) findings in which he confirmed that errors of this nature are "morpho-orthographic, the graphemic forms of root morpheme and inflection morpheme stored separately in the internal lexicon [and] retrieved when an item is to be spelt and put together after the application of the appropriate adjustment" (p. 356). It was confirmed by Alhaysony (2012) that errors of this type are generally increasing due to the insufficient English writing practice.

Consequently, the difficulties mentioned above might be based on three reasons: students interpret words as sequences of sound segments rather than as continuous stream of sounds. The number of letters in the written version of a word and the number of sound segments in spoken version are not necessarily the same and sometimes the same word can be pronounced with different sequences of sound segments (Kuiper and Allan, 2004). Being more specific, it can be argued that the reason for the occurrence of omission errors is interlingua, which can be attributed to the differences found between English and

Arabic. Therefore, overcoming this difficulty needs teaching the spelling of vocabulary in tandem with their pronunciation and then integrating them into sentences. Thus, spelling errors should be analysed not only at the morphological level but also at the syntactic and semantic levels to provide a broader context for learning the language.

5.2.2. Substitution Errors

According to the process of data analysis, *substitution* errors were 38 with a percentage of 15.8%. These errors were more frequently related to the substitution of vowels than the substitution of consonants. This indicated that substitution did not only occur on vowels but also on consonants. The main cause of substitution errors is the lack of knowledge of the relationship between sounds and written symbols and faulty pronunciation. Lack of awareness of the spelling rules, phonetics and phonology was also said by most of the students who had been interviewed. During the interviews, the students confirmed needs to know more about English spelling rules. These findings go in line with Al-Jabri's (2006) findings in which he confirmed that substitution errors are the most common types of spelling errors that Arab learners usually make.

Moreover, Al-Zuoud and Kabilan, (2013) indicated in their studies that the most common spelling error among students was substituting the correct letter with another letter, however, they did not specify the types of letters that were most problematic. This type of errors is caused by the misspelling of the word. Students commit some errors when they write words according to their pronunciation, because some English letters may possess varied pronunciations in different contexts. In most of written essays, students substitute vowels and consonants, for example in the word 'countries' they substitute 'i' by 'u' like 'contrues' and 'different' which is written 'dufferent'. This can be interpreted as a

misunderstanding of phonemic and phonological of the target language system. In this respect, Allan and Kuiper (2004) and Muvindi (2013) argued that some letters in English such as consonants are not existent in Arabic, so students may get confused when they come to write them. Vaddapalli (2012:273), also concluded that the “lack of phonemic awareness of English sounds is one of the main reasons of spelling problems”.

5.2.3. Addition Errors

Looking closely at the findings obtained revealed that most of the respondents had difficulty in writing most of the words correctly. The *addition* type errors were 15 errors with a percentage of 6.3%. Spelling errors in writing those words occurred because the respondents were not familiar with them. Therefore, the participants tried to imitate the sounds of those words, then write them. The occurrence of this type of errors can be attributed to students' limited background. When students are not aware of the spelling of words, they write them as they are heard. For example, ‘music’ was written by a number of students ‘musice’. The research findings also revealed that ‘Addition’ do not only occur on vowels, but also consonants, for example the word ‘traditional’ was written ‘traddtional’ by many participants. This conclusion goes in a line with Chomsky’s (1959) hypothesis in which he said that most second language learners tend to add a certain letters which are not required. Being on the same track, Bowen (2011) assured that the absence of written vowels in Arabic text might have led students to guess words in English inaccurately and add some letters which are not related to the word being written. Cook (1999) also attributed this error to the linguistic differences between English and Arabic. He indicated that Arab learners substituted vowels and added more vowels than other L2 users. Therefore, it can be concluded that ‘addition errors’ occur due to L1 interference,

and because the differences between the written and sound systems of English and Arabic. Students try to pronounce words as the way they are pronounced in Arabic.

5.2.4. Disordering Errors

The findings gained from the writing task revealed that the '*disordering* errors' were 18 errors with a percentage of 7.5%. Disordering or Transposition refers to reversing the order of a letter or some letters within a word. Many errors made by fourth year students such as replacing one vowel by another such as in the word 'difficult', the letter 'u' was replaced by 'a' and was written 'difficalt'. Another error was seen in the word 'mistakes', the letter 'i' was replaced by 'e' and was written 'mestakes'. Students reversing the order of vowel letters because of their limited knowledge about different representations of the English phonemes. One more example, in the word 'camera' the participants put the letter 'k' instead of 'c' and wrote it 'kamera'. This reflects the students' limited knowledge of English spelling rules in addition to the phonemic, phonological and linguistic differences between L1 and L2. This conclusion agrees with Schaffler's (2007:14) argument in which he states that "Poor knowledge of language structure (morphology, phonology, syntax, phoneme/grapheme relation) in mother tongue as well as FAD". This conclusion also goes in harmony with Al-Jarf's (2008) findings where he confirms that "learners sometimes write words that do not correspond to the target word for different reasons". These reasons are, words were not heard at all, students' inability to distinguish some or all the phonemes in the words, the word sequence, minimal pairs, single vowels and consonant phonemes, or it might be because of failing to recognize flaps and elision. It was also stated by the same author that orthographic errors usually refer to that misspell words which sound like the target word but the written form or the grapheme does not correspond with the intended word or the intended grapheme. It can be concluded that the complexity between English

spelling and pronunciation, and the wrong pronunciation negatively affect the spelling of words. In this respect, Crystal (2012: 3) wrote “English spelling would seem to have been designed chiefly as disguise for pronunciation”.

5.3. Areas of Spelling Difficulties

The findings obtained showed that fourth year students in the English department at Zawia University encountered many spelling difficulties in different areas. These areas include: language orthography system and interference, lack of strategies used in teaching spelling, lack of practicing and using traditional teaching methods and lack of teaching spelling resources. These issues are discussed as follows:

5.3.1. Language Orthography System and Interference

Orthography means the terminology utilized to indicate the conventional spelling system of a language. The qualitative findings revealed that spelling errors occur as a result of anomalies existing in L2 as well as L1 interference. For example, throughout the interviews student ‘C’ said “*the differences between the L1 and the L2 languages respectively are one of the main causes of these difficulties*”. What is important here is that the absence of written vowels in Arabic text might have led students to guess the spelling of certain words in English inaccurately, as the two languages are either deep or shallow orthographies. It has been identified that languages in which letters do not correspond directly to phonemes are orthographically deep, such as Arabic, English and Hebrew, while others in which letters correspond to phonemes are orthographically shallow (Cook, 2004). Accordingly, knowing whether a particular language is deep or shallow is an important aspect for both teachers and students. Ehri (2000) stated that spelling reflects more advanced linguistic knowledge, because it requires the critical integration of

phonological, orthographic, and morphological knowledge. In this regard, Ali (2012) suggested a number of solutions such as: devising remedial measures, preparing a sequence of target language items in classrooms, and text books with difficult items coming after the easier ones and making suggestions about the nature or strategies of second language learning employed by both first and second language learners.

5.3.2. Lack of Strategies Used in Teaching Spelling

Using a variety of strategies in teaching spelling is an effective way to tackle spelling errors and difficulties that students might encounter whenever they write in English. According to the findings gained, students face spelling difficulties when because they have different background knowledge about spelling rules. Some interviewees justified their inability to spell long words because they have many syllables and silent letters. For example, student ‘C’ stated *“long words constructed from a number of morphemes and we have to divide the word to be able to pronounce it (e.g. international, information, communication) we cannot spell these words easily”*. Students attributed this problem to the lack of actual practice in class, for example students ‘B’ *“stated “lack of practice and lack of the interaction in the class with colleagues, just the teacher go through the intended lessons in the curriculum”*. This can be interpreted as a desperate need for more practice in class on spelling rules in addition to more effective strategies in teaching spelling. This finding corresponds with Henry (2003) who states that spelling is a linguistic skill and must be taught in the context of English language, and Treiman (2018) who highlights the students’ need to know about systematic spelling instruction to learn how the writing system works.

5.3.3. Lack of Practising and Using Traditional methods of Teaching

The research findings showed that practising spelling activities is an appropriate strategy that students should depend on to improve their spelling. In consequence, giving more practice and drills on words that are frequently written incorrectly is very useful technique throughout the teaching process. Most of the interviewees emphasize their need to do more practice in class time. The students interviewed also argued that their teachers still employ traditional methods of teaching. More importantly, the interviewees declared that they did not receive any spelling activities in class in the first year. For instance, student 'B' stated *"even when we had phonetic and phonological rules in first and second year the only focus was on phonemic sounds and how to memorize them, but not on practicing"*. By the same token, teacher 'D' said *"I use traditional way, students are given sheets, list of words and they are asked to write them, however, I know the best way to teach spelling through repetition, and browsing websites, memorizing more than three thousand words, and using CDs to practise the correct pronunciation of these words"*. The findings obtained indicated that some teachers do not give feedback on their students' work, they just satisfy with teaching spelling whenever they feel that students need that. In this respect, teacher 'A' said *"I do teach spelling whenever I see their pronunciation is quite affected and negatively by the way they pronounce words"*. This finding emphasizes the teachers' limited use of strategies in teaching spelling. More importantly, this finding disagrees with Reed, (2012) who confirms that spelling has a crucial place in every teacher's crowded instruction schedule, and also against Bailet's (2004) findings in which he pointed out that *"Explicit teaching of spelling is important to the development of effective spellers"*.

5.3.4. Lack of Teaching Spelling Resources

The findings obtained revealed a complete consensus among the teachers interviewed that the textbooks they use do not contain sufficient information about spelling. They also stated that the textbooks are not designed to cover all the spelling rules. For example, teacher 'B' stated "*... textbooks do not cover all spelling rules because it depends on the type of the book itself*". The lack of spelling exercises was also confirmed by student 'B' who argued, "*I do not know about the names of all types of spelling errors and our teacher never informed us about these types you stated*". This means these students have a very limited background about spelling and the reason behinds that might be their teachers. All of these issues are considered as a result of lack of the teaching resources. Furthermore, this indicates that teachers do not also use supplementary materials in order to cover the spelling difficulties, they just use certain strategies as the teaching situation required. For example, teacher 'D' said "*I underline the misspelling words and put the letter (p) over the words to prevent them in commit such mistakes another time*". He also added that "*I always ask my students to write the words and check their spelling*". Another teacher said, "*I give my students more tasks about writing related to writing essays, paragraphs, notes, reports which may help them to apply the rules of spelling*". Those teachers emphasize that the lack of resources represents the main cause of spelling problems. Interestingly, this conclusion goes in a line with Fresh et al.'s (2003). According to Fresh et al., teachers and schools continuously regard spelling as an integral part of any educational curriculum, e. g. almost all of the American's elementary schools teach and assess their students' spelling abilities.

5.4. Summary of the Chapter

This chapter discussed the most interesting findings obtained. The discussion was conducted in relation to relevant previous studies and the research questions. Interpretations and arguments related to the discussion findings were provided.

Chapter Six

Conclusion

6.0. Introduction

This chapter represents the conclusion of the whole study. Moreover, it presents a number of beneficial implications, recommendations and suggestions for further research, followed by the limitations of the study.

6.1. Conclusions of the Whole Study

According to the findings obtained, spelling is a significant issue that teachers have to care about throughout their teaching process. Due to the limited use of appropriate teaching methods and effective strategies, spelling difficulties are widely spread among university students. The research findings revealed that teachers do not show any interest in teaching and correcting students' spelling mistakes. The findings obtained showed that 'omission', 'substitution', 'addition', and 'disordering' were the most common types of spelling errors committed by the participants. More to the point, the research findings revealed that students' carelessness, limited practice and misunderstanding of English spelling rules negatively affect students' performance in the writing process. The research findings presented a number of significant factors that negatively affect students' spelling ability and teachers' mission in class. These factors include (1) time limit; teachers usually spend most of the lesson time in covering the material assigned in textbooks. This means that very little time is left for spelling instruction; (2) lack of spelling exercises in textbooks prevents students and teachers from applying spelling rules in class; (3) lack of effective methods and activities considered one of the main reasons for spelling errors; (4) lack of reading and writing tasks performed in class or at home; (5) L1 interference and wrong pronunciation

of some words also affect students written product; (6) different accents and the complexity of English language rules represent the most common reasons of spelling errors among fourth year students at Zawia University. Being aware of all these factors, well trained and experienced teachers are needed to guarantee flexible and beneficial interaction with students with deferent background knowledge. Furthermore, teaching the origins of words is important to develop the students' linguistic knowledge that help them improve their spelling, because instructions alone do not have positive effect on students' spelling performance.

6.2. Pedagogical Implications and Recommendations

This study focused on identifying the most common types of spelling errors and difficulties students encounter while writing and specify appropriate strategies to respond to them. As a result of exploring of these issues, several potential contributions are provided.

- The findings of this study showed that students suffer the lack of knowledge about English spelling in their writing. Therefore, more attention should be paid to spelling as one of the main subject material in the teaching and learning schedule.
- The results revealed that some students complained from the lack of activities that help them practice spelling in the writing classes. Therefore, more exercises related to spelling should be introduced to students during their class time.
- Correcting spelling errors is not enough for 2nd language learners, because correcting spelling is not teaching spelling, it is a copy of editing. Therefore, students' spelling proficiency particularly must be evaluated at the beginning of the year to measure students' actual achievements in spelling.

- Examining the effectiveness of a teaching methods is recommended in order to measure their effect on improving students' spelling proficiency. Thus, effective spelling learning strategies should be included in the English language syllabus.
- Using electronic dictionaries is necessary for being able to know the right pronunciation of the intended word.
- The curriculum department in the Ministry of Education should design syllables that satisfy or meet the students' needs and expectations.
- More attention should be paid to teaching spelling and to the improvement of the students' spelling.
- Teachers should create positive attitudes towards spelling because many of students assured that spelling as an important aspect of the language, and teachers have to address it.
- Students should keep personal spelling booklets in order to record their spelling mistakes.
- Teachers need to enrich their knowledge about the nature of spelling rules and how can be taught to students in a motivating way.
- Teachers should focus on using the repetition strategy to improve their students' proficiency in spelling.
- Comparisons between the spelling performance of different grade levels, e.g. between grade one and grade four, are recommended in order to examine whether students make different types of spelling errors as they progress through the years of learning English or not.
- Instant and valid corrective feedback should be given to students in order to develop their spelling proficiency in a short time guided by spelling checkers and well experienced teachers.

- Students' phonological, morphological and phonetic skills should critically evaluated and tested in order to find out and verify the significance of phonological processing involved in spelling.
- Teachers need to be well trained to deal with students' spelling difficulties. Therefore, curriculum developers in co-ordination with training and supervision departments can survey teachers' training needs with respect to teaching and learning spelling. Then, in-service training courses that can correspond with students' actual needs can be designed and implemented.

6.3. Limitations of the Study

There are some limitations in this study. It was conducted with only fourth year students in English Department at Zawia University. The number of students was sixty and their teachers were four. The research findings, therefore, could be more comprehensive if the sample included first year students and comparison made between them. Moreover, the researcher did not obtain enough time to conduct the study in more than one university and to add more methods like focus group discussion. Furthermore, semi-structured interview and questionnaire have limitations as research instrument which also need to be taken into consideration.

6.4. Suggestions for Further Research

Exploring the effectiveness of teaching approaches or teaching/learning strategies in regard to spelling is recommended as a further research in order to measure their effect on improving students' spelling proficiency. Moreover, further studies on spelling problems might consider investigating misspellings issues in other universities and with other grade levels are required.

6.5. Challenges Encountered during the Research Process

Throughout the research process, the researcher encountered a number of challenges which deserve to be mentioned here. The lack of recourses which represented the major factor that slowed the progress of the research. Moreover, the flared war and Covid 19 also affect the progression of the research in hand.

6.6. Summary of the Chapter

This chapter summarized the findings of the whole study, it offered effective strategies and possible solutions of the issue of spelling which were clearly explained and explicitly discussed in a number of points.

References

- A Atatsi, E. A. and Amoakohene, B. (2019). An Analysis of Students' Knowledge in Spelling: A Case of a Technical University in Ghana'. *Journal of Language, Discourse & Society*, 1, pp.11, 6
- Adams, W. C. (2015). Conducting *Semi-Structured Interviews*. In: Wholey, J.S., Harty, H.P. and Newcomer, K.E., Eds. *Handbook of Practical Program Evaluation*, Jossey-Bass, San Francisco, pp. 492-505.
- Adoniou, M. (2016). *Spelling it out*. Cambridge: Cambridge University Press.
- Ahmed, D. (2017). *Investigating English spelling difficulties in basic level pupils: A case study of some basic level schools in Omdurman locality*. (Unpublished PHD dissertation). Sudan University of Science and Technology, Khartoum, Sudan.
- Akbar, A. (2012). *Error Analysis and Second Language Acquisition*. Finland: Academy Publisher.
- Al Jayousi, M. (1994). Spelling Errors of Arab Students: Types, Causes, and Teachers' Responses. *Journal of American University of Sharjah*, 141.
- Al Otaiba, S.& Hosp, J. (2010). Spell it out: The need for detailed spelling assessment to inform instruction. *Assessment for Effective*. Available at https://www.eera-ecer.de/ecer-programmes/conference/20/contribution/33525/10_Sep_2019
- Alber, S. R. & Walshe, S. E. (2004). When to self-correct spelling words: A systematic replication. *Journal of Behavioral Education*, 13, pp. 1–24.
- Al-Bulushi, A. (2016). Arab English language candidates climbing the IELTS mountain: A qualitatively driven hermeneutic phenomenology study. *Journal of The Qualitative Report*, 21,5, pp.848-863. Retrieved from <http://nsuworks.nova.edu/cgi/viewcontent.cgi?article=2367&context=tqr>.
- Alhaisoni, E. M., Al-Zuoud, K.M & Gaudel, D.R. (2015). Analysis of Spelling Errors of Beginner Learners of English in the English Foreign Language Context in Saudi Arabia. *Journal of English Language Teaching*, 8, 3, pp.185-192.

- Al-Hassan, A. (2011). *English Spelling Is Chaotic: What Facts Lie Behind This Popular Judgment?* Informally Published Manuscript, Petra University, Amman, Jordan.
- Alhaysony, M. (2012). An Analysis of Article Errors Among Saudi Female EFL Students: A Case Study'. *Journal of Asian Social Science*, 8,12, pp.55-66.
- Ali, S. (2012). Teaching Reading and Spelling to Adult Learners: The Multisensory Structured Language Approach. *Journal of National University of Modern Languages, Pakistan*.5, 3.
- Al-Jarf, F. M. (2008). Common English Spelling Difficulties of Omani Learners. Oman, Batinah: North Region.
- Al-Jabri, F. (2006). *Common English spelling difficulties of Omani Learners*. Sultanate of Oman: Ministry of Education.
- Al-Jarf, R. (2005). The Relationship among Spelling, Listening and Decoding Skills in EFL Freshman Students, *Journal of English Language & Literature Teaching*, 11, 2,pp. 1-19.
- Al-Jarf, R. (2010). Spelling Error Corpora in EFL. *Journal of Sino-US English Teaching*, 7(1), 73.
- Al Jayousi, M. T. (2011). *Spelling errors of Arab students: types, causes, and teachers' responses*. American University of Sharjah.
- Al-Karaki, E. (2005). *An analysis of spelling errors made by school students in AlKarak Directorate of Education*. Unpublished thesis, Mu" tah University, AlKarak.
- Al-khresheh, M. (2015). A Review Study of Interlanguage Theory. *International Journal of Applied Linguistics & English Literature*, 4 (3), pp.124 - 131.
- Al-khresheh, M. H. (2016). A review study of error analysis theory. *International Journal of Humanities and SocialScience Research* 2: pp.49-59
- Allan, W.&Kuiper, K. (2004). An Introduction to English Language: Word, Sound and Sentence. Palgrave Macmillan; 3rd edition *New York* : <http://www.palgrave-usa.com>

- Alsaawi, A. (2015). Spelling Errors Made by Arab Learners of English. *International Journal of Linguistics*, 7, 5. Available at SSRN: <https://ssrn.com/abstract=2818442>.
- Alsaawi, A. (2015). Spelling Errors Made by Arab Learners of English. *International Journal of Linguistics: Macrothink Institute*, 7, 5, pp. 55-67.
- Al-Saudi, J. (2013). 'Error Analysis and Spelling Mistakes of EFL Learners at Ta,la Technical University: A Case Study. *Journal of Frontiers of Language and Teaching*, 4, pp.99-107.
- Al-Ta'ani, M. H. Al. (2006). An Investigation of Spelling Errors Found in Written Composition of Second and Third Secondary Students in the United Arab Emirates. Sudan University of science and Technology.
- Al-Zuoud, K. & Kabilan, M. (2013). Investigating Jordanian EFL Students' Spelling Errors at Tertiary Level. *Psychology International Journal of Linguistics*, 5, p 3.
- Anderson, K. (1987). An Analysis of the Spelling Errors Made by Three College Students in Essay Writing. *Journal of Research and Development in Education*, 20, pp.40-50.
- Artelt, C. (2011). Fifth graders metacognitive knowledge: General or domain specific. *European Journal of Psychology of Education*, 26, pp. 163–178.
- Attala, L. (2017). The Edibility Approach: Using Edibility to Explore Relationships, Plant Agency and the Porosity of Species' Boundaries'. *Journal of Advances in Anthropology*, 7, 3, pp. 125-145.
- Babkoff, A. (2005). Old Rules, Spelling Reform, Loan words and spelling on the net. *18th Annual, EA Education Conference*. Available at http://qa.englishaustralia.com.au/index.cgi?E=hcatsfunc&pT=s1&X=getdoc&Lev1=pub_c06_07&Lev2=c0
- Bahloul, M. (2007). Spelling errors of Arab learners: Evidence of intergraphic mapping`. *Journal of Language Teacher Research in the Middle East*, 7, pp. 41-51.
- Bahloul, M. (2007). Spelling errors of Arab learners: Evidence of Intergraphic Mapping'. *Journal of Language Teacher Research in the Middle East*, 3, pp. 41-51.

- Baillet, L. L. (2004). *Spelling instructional and intervention frameworks*. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders*, pp. 661–678. New York: Guilford Press.
- Braun, V & Clarke, V (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3,2, pp. 77-101 To link to this article: <http://dx.doi.org/10.1191/1478088706qp063oa>
- Basner, I. (2011). Research Paper on Spelling Strategies. Available at <https://speldnsw.org.au/wp-content/uploads/2013/02/Research-Paper-on-Spelling-Strategies-by-Isolde-Basner.pdf>
- Bechtel, W. and Adele A. (1990). *Connectionism and the Mind: An Introduction to Parallel Processing in Networks*, Cambridge, MA: Blackwell.
- Berger, B. (2016). Using Evidence-based Spelling instruction to Support Elementary Students: A Self-Study. *Journal of School of Education Student Capstone Theses and Dissertations*. 21, pp.41-86, Available at https://digitalcommons.hamline.edu/hse_all/4186
- Berkel, A. (2005). *The role of the phonological strategy in learning to spell in English as a second language*, DOI: [10.21832/9781853597954-005](https://doi.org/10.21832/9781853597954-005) in book: *Second Language Writing Systems*, pp. 97-121.
- Berninger, V. & Fayol, M. (2008). `Why spelling is important and how to teach it effectively`. Retrieved from: [http://www. Litracycyclopedia.ca/index. Php? f a=items. show & topic Id=234](http://www.Litracycyclopedia.ca/index.Php?f a=items.show & topic Id=234).
- Bolderston, A. (2012). Conducting a Research Interview *Journal of Medical Imaging and Radiation Sciences*, 43,1, pp.66–76.
- Bosman, A. M. T., Van Hell, J. G. & Verhoeven, L. (2006). Learning the spelling of strange words in Dutch benefits from regularized reading. *Journal of Educational Psychology*, 98, pp.879–890.
- Bosman, A. M., Schraven, J. L., Segers, E. and Broek, P. (2017). How to teach children reading and spelling? *Journal of In-Developmental Perspectives in Written*

Language and Literacy: In Honor of Ludo Verhoeven, (eds) E. Segers, and P. Broek van den, 60, pp.277–293.

Bosman, A & Verhoeven, L. (2006). Learning the spelling of strange words in Dutch benefits from regularized reading. *Journal of Educational Psychology*, 98, pp.879–890.

Bowen, C. (2011). Phonological / Phonemic Awareness in M. Ball, and J. Damico (eds). *The SAGE Encyclopaedia of Human Communication Sciences and Disorders*. Thousand Oaks: CA. Sage Publications.

Bowers, N. Jeffrey, S. & Peter, B. (2017). Beyond Phonics: The Case for Teaching Children the Logic of the English Spelling System. *Journal of Educational Psychologist*, 52:2,pp. 124-141, available at : <http://dx.doi.org/10.1080/00461520.2017.1288571>

Burns, M. S., Snow, C. E. and Griffin, P. (2005). *‘Knowledge to support the teaching of reading: preparing teachers for a changing world’*. San Francisco, CA: Jossey-Bass.

Caulfield, J. (2019). *How to do thematic analysis*. Available online at: <https://www.scribbr.com/methodology/thematic-analysis/>.

Cook, V. J. (1999). Teaching spelling. Retrieved from <http://privatewww.essex.ac.uk/~vcook/OBS2O.htm>.

Cook, V. (2004). *The English Writing System*. London: Arnold.

Cook, V. (2007). L2 Users and English Spelling. *Journal of Multilingual and Multicultural Development(Internet Source)*

Cook, V. J. (2004) The spelling of the regular past tense in English: Implications for lexical spelling and dual process models. In G. Bergh, J. Herriman & M. Mabärg (Eds.), *AIMO: An International Master of Syntax* (pp. 59-68). Gothenburg, Sweden: Acta Universitatis Gothoburgensis.

Coyne, M. (2006). The Reading–Spelling Connection: Developing and Evaluating a Beginning Spelling Intervention for Children at Risk of Reading Disability. *Journal of Learning disabilities research and practice*, 21, 2, pp.122 – 13

- Croft, C. (1983). *Teachers Manual for Spell-Write: An Aid to Writing, Spelling and Word-study*. Wellington: New Zealand Council for Educational Research.
- Crystal, D. (2002). *Rules of Contract Law: UCC, C sb.* Amazon. Com, Inc.
- Crystal, D. (2012). *Spell It Out: The Singular Story of English Spelling*, Hardcover.
- Chomsky, N. (1959). Review of Skinner's *Verbal Behaviour*'. *Journal of Language*, 35, pp. 26–58.
- Cunningham, R.F. (2004). Problem Posing: An Opportunity for Increasing Student Responsibility. *Journal of Mathematics and Computer Education* 38, 1, pp. 83-89.
- Davis, L. (1969). The applicability of phonic generalizations to selected spelling programs. PHD thesis: University of Oklahoma.
- De Benedictis, T., Jaffe, J. & Segal, J. (2005). Learning disabilities: types and symptoms, diagnosis and causes. Available at: <https://www.helpguide.org/mental.learning.disabilities>
- De Benedictis, T., Jaffe, J. & Segal, J. (2005). Learning disabilities: types and symptoms, diagnosis and causes. Available at: <http://www.helpguide.org/mental.learning.disabilities>
- Dehaene, S. (2009). *Reading in the brain*. New York, NY: Viking.
- Department of Education and Science (DES) (2003), Circular 24/03: Allocation of Resources for Pupils with Special Educational Needs in National Schools. Dublin: DES.
- Doe, A. (2001). Theory guided spelling assessment and 1 intervention. Language, Speech, and Hearing Services in the Schools. www.learningbydesgin.com.
- Dörnyei, Z. (2007) *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford University: Press Oxford.
- Ehri, L. C. (1997). Reconceptualising the development of sight word reading and its relationship to recoding. In: *Reading Acquisition*, pp. 107-143

- Ehri, L. C. (2000). Learning to read and learning to spell: Two sides of a coin. *Journal of Topics in Language Disorders*, 20, 3, pp.19–36
- Ehri, L. C. (2015). *How children learn to read words*. In A. Pollatsek & R. Treiman (Eds.), *Oxford library of psychology, The Oxford handbook of reading*. Oxford: University Press.
- Elizabeth, A. (2018). *An Inconvenient Alphabet: Ben Franklin & Noah Webster's Spelling Revolution*
- Elizabeth, A. (2016). Statistical Methods and Computing for Big Data, Statistics and Its Interface. *Journal of Education and Teaching*, 9, pp. 399-414.
- Elman, J. L. (2005). Connectionist models of cognitive development: where next? *Journal of Trends in Cognitive Sciences*, 9, pp. 111–117.
- Fender, M. (2008). Spelling knowledge and reading development: Insights from Arab ESL Learners. *Journal of Reading in a Foreign Language*, 20, 1, pp. 19-42.
- Fresh, M.J. (2003). A national survey of spelling instruction: Investigating teachers' beliefs and practice. *Journal of Literacy Research*, 35, pp. 819-848.
- Gentry, N. (2004). *The science of spelling: the explicit specifics that make great readers writers (and spellers)*. Portsmouth, NH: Heinemann.
- Glesne, C. & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- Graham, S. & Miller, L. (1979). Spelling research and practice: A united approach, Focus on Exceptional Children, *Journal of education and teaching*, 12, pp.1-16.
- Graham, S. Harris, K. R. and Chorzempa, B. F. (2002). Contribution of spelling instruction to the spelling, writing, and reading of poor spellers. *Journal of Education Psychology*, 94, 4, pp. 669-686.
- Graham, S., Morphy, P., Harris, K. R., Fink Chorzempa, B., Saddler, B., Moran, S., & Mason, L. (2008). Teaching spelling in the primary grades: A national survey of

instructional practices and adaptations. *American Educational Research Journal*, 45, pp.796–825.

Greene, J. C., Caracelli, V. J. & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs'. *Journal of Educational Evaluation and Policy Analysis*, 11,3,pp. 255–274.

Hassan, Z. A., Schattner, P., & Mazza, D. (2006). Doing a pilot study: why is it essential? *Malaysian Family Physician*, 1(2 & 3), 70 - 73.

Hebb, D. O. (1949). *The organization of behaviour: A neuropsychological approach*. New York: Wiley.

Helman, L. (2004). Building on the sound system of Spanish: insights from the alphabetic spellings of English-language learners. *Journal of the Reading Teacher*, 57, pp. 452–460.

Henry, M. K. (2003). *Unlocking literacy: Effective decoding & spelling instruction*. Baltimore, MD: Paul H. Brookers.

Hildreth, G. (1962). *Teaching spelling: A guide to basic principles and practices*. New York: Holt, Rinehart and Winston, inc.

Horgan, T.&Tienson (1991). Overview. In Horgan, T. & Tienson (Eds.) *Connectionism and the Philosophy of Mind*. Dordrecht: Kluwer. <http://iatefl.BritishCouncil.org/2011/Sessions/2011-04-17/English-Spelling-Chaotic-What-Facts-Lie-Behind-Popular-Judgment>. [Accessed 2 April 2020].

Invernizzi, M., Hayes, L. (2004). Developmental-spelling research: A systematic imperative. *Journal of Reading Research Quarterly*, 39, pp. 216–228

Ismail, N. & Al Asmari, A. (2018). Development of Training-Based Spelling Strategies for Female EFL Students: Case Study of a Saudi University, 9, 1, pp. 241, available from: [10.5539/ijel.v9n1p241](https://doi.org/10.5539/ijel.v9n1p241) ISSN: 2456-8104. Available on: <http://www.spelt.com/Issue5>

Jameton, A. (1984). *Nursing practice: The ethical issues*. Englewood Cliffs: Prentice-Hall.

- Johnson, H. (2000). The strategic spelling skills of students with learning disabilities: The results of two studies. *Journal of instructional psychology*, 27,1,pp. 15-27.
- Karing, C., Matthäi, J.& Artelt, C. (2011). Genauigkeit von Lehrerurteilen über die Lesekompetenz ihrer Schülerinnen und Schüler in der Sekundarstufe I – Eine Frage der Spezifität? *Zeitschrift für Pädagogische Psychologie*, 25, 3,pp. 159-172.
- Kato, A. (2006). Error Analysis of High School Student Essays. *Journal of Accent Asia* (online), 1, 2, pp. 1- 13. Available at : <https://www.acetasia.org/1-2/kato.pdf>
- Khansir, A. (2008). Place of Error Analysis in Language Teaching. *Journal of Indian Linguistics*, 69,pp. 195-202.
- King, L. (1932) Learning and applying spelling rules in grades three to eight. *Contributions to Education*,. New York: Bureau of Publications, Columbia University. No. 517
- Kirk, C. (2013). Theoretical beliefs and instructional practices used for teaching spelling in elementary classrooms. *Reading and Writing: An Interdisciplinary Journal*, 27, pp. 535–554.
- Kohnen, S., Nickels, L., & Castles, A. (2009). Assessing spelling skills and strategies: a critique of available resources'. *Journal of Abuts J Learn Difficulties*,14, 1, pp.113–150
- kuiper ,w.& Allan, S. (2004).*An Introduction to English Language: Word, Sound and Sentence*. Cambridge: Red Globe Press
- Kyte, N.(1958). 'Errors in Commonly Misspelled Words in the Intermediate Grades'.*Journal of Psycholinguistic Research*.14, pp. 569–593
- Lutz, E. (1986). *Invented Spelling and Spelling Development*. ERIC Digest: ERIC Clearinghouse on Reading and Communication Skills.
- Malone, N., (2004). Adult spelling strategies. *Journal of Reading and Writing*, 17, 6,pp. 537-566.

- McCulloch, W. S. and Pitts, (1943), 'A Logical Calculus of the Ideas Immanent in Nervous Activity'. *Journal of Bulletin of Mathematical Biophysics*, 7, pp. 115–133. Reprinted in McCulloch 1964, pp. 16-39.
- McCulloch, W. & Pitts. (1943). A logical calculus of the ideas immanent in nervous. *Journal of activity Bulletin of Mathematical Biophysics*, 5, pp. 115-133.
- McNeill, B. & Kirk, C. (2014). 'Theoretical beliefs and instructional practices used for teaching spelling in elementary classrooms'. *Journal of Reading and Writing*, 27, pp. 535-554. <https://doi.org/10.1007/s11145-013-9457-0>
- Minovitz, E. (2012). "Jerome Courtland, 85, was "Pete's Dragon" producer". Big Cartoon News. Archived from the original on July 10, 2012. Retrieved March 6, 2020.
- Moats, L. C. (2006). How spelling supports reading and why it is more regular and predictable than you may think. *Journal of American Educator*, 6, pp. 12-21.
- Moats, L.C. (2005). How spelling supports reading. *Journal of American Educator*, 29, pp. 12-43. Retrieved from: <http://www.aft.org/sites/default/files/periodicals/Moats.pdf>
- Mohammed, M. S. & Abdalhussein, H. F. (2015). Grammatical Error Analysis of Iraqi Postgraduate Students' Academic Writing: The Case of Iraqi Students in UKM. *Journal of American Educator*, 29, 4, pp. 12–22, 42–43
- Murawski, W., (2012). Ten tips for using co-planning time more efficiently. *Journal of Teaching Exceptional Children*, 44, 4, pp. 8-15.
- Muvindi, I. (2013). Cohesion and Coherence: Implications for ESL Teachers. *International Journal of Innovative and Applied Research*, 1(1), 80-84. Retrieved from http://www.journalijiar.com/uploads/2014-01-08_061313_97.pdf.
- National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction (NIH Publication No. 00-4769), Washington, DC: U.S. Government Printing Office, 13–14.

- Oakley, G. (2018). Early Career Teachers' Knowledge and Practice in Spelling Instruction: Insights for Teacher Educators. *Australian Journal of Teacher Education*, 43(12). <http://dx.doi.org/10.14221/ajte.2018v43n12.5>
- Oyedepo, S. M (1987). Lexical Difficulties in the Written English of Second Language Learners: Conducted Among Secondary School : pupils in Nigeria. PhD thesis, University of Wales.
- Paulesu, (2001). Dyslexia: Cultural diversity and biological unity *Journal of Science*, 291(5511), 2165-2167.
- Payne, J.(1995). *English Guides 8: Spelling*. Birmingham: The University of Birmingham Press.
- Pinker, V (1999). *Words and Rules: The ingredients of language*. New York: HarperCollins.
- Plano Clark, V. L., Creswell, J. W., Gutmann, M., & Hanson, W., (2003). *Advanced mixed methods research designs*. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioural research* (pp.209–240). Thousand Oaks, CA: Sage.
- Rao, V. C. (2018). The Use of English Language in Research. Hyderabad, India, Available at: <http://www.jrspelt.com>
- Reed, D. K. (2012). *Why teach spelling?* Portsmouth, NH: RMC Research Corporation, Center on Instruction.
- Richards T.L., et al. (2011). Differences between good and poor child writers on f MRI contrasts for writing newly taught and highly practiced letter forms *Read Writ.* 24, 5, pp. 493-516, available at: [10.1007/s11145-009-9217-3](https://doi.org/10.1007/s11145-009-9217-3)
- Richards, J. C., Platt, J., & Platt, H. (1992). *Dictionary of language teaching and applied linguistics*. Essex: Longman.

- Rippel, M. (2009). All About Spelling series. The Old Schoolhouse® Magazine, LLC.
Retrieved from <http://creation.com/effective-spelling-strategies>, on January 23rd, 2020.
- Ritchey, K. D. (2008). The building blocks of writing: Learning to write letters and spell words. *Journal of Reading and Writing*, 21, pp. 27-47.
- Sekhar, C. (2018). English Spelling and Pronunciation - A Brief Study. 5(2) .pp.2456-8104 <http://www.jrspelt.com>
- Santorio, L. E., Coyne, M. D., & Simmons, D. C. (2006). The reading-spelling connection: developing and evaluating a beginning Spelling Intervention for children at Risk of Reading Disability. *Journal of Learning Disabilities Research & Practice*, 21, 2, pp. 122-133.
- Schaffler, D. (2007). The identification of spelling difficulties of learners in the foundation phase with Tswana as a medium of instruction, unpublished MA dissertation, North West University.
- Schlager, R. C. (2002). Classroom spelling instruction: History, research, and practice. *Journal of Reading Research & Instruction*, 42, 1, pp. 44-57.
- Seidenberg, M., (1993). Connectionist models and cognitive theory. *Journal of Psychol. Sci.* 4, pp. 228–235.
- Shazia, J., (2014). Qualitative research method-interviewing and observation. *Journal of Basic and Clinical Pharmacy*
- Sterling, C. M. (1983). Spelling errors in context. *British Journal of Psychology*, 74, 3, pp. 353–364
- Templeton, S. & Morris, D. (1999). Questions teachers ask about spelling. *Journal of Reading Research Quarterly*, 34,1, pp. 102-112
- Templeton, S. (2003). *Spelling*. In Flood, J., Lapp, D., Squire, James. R.& Jensen, J. M. (Eds.), *Handbook of Research on Teaching the English Language Arts* (2nd ed., pp. 738-751). Mahwah, NY: Lawrence Erlbaum Associates

- Templeton, M. (1999). While spelling knowledge is a critical skill for writing, it is also a critical skill for reading'. Importantly, practice at ...https://www.nesacenter.org/uploaded/conferences/SEC/2010/spkr_handouts/Templeton_Grades_K-3.pdf
- Treiman, (2017). Graphotactics and spelling: Evidence from consonant doubling. *Journal of Memory and Language*, 92, pp. 254–264
- Treiman, R. (2018). *The teaching and learning of spelling*. Child Development Perspectives. Advance online publication. doi:10.1111/cdep.12289
- Treiman, R. and Bourassa, D. (2000). Children's written and oral spelling. *Journal of Applied Psycholinguistics*, 21, 2, pp. 183-204.
- Turner, (1912). 'Rules versus drill in teaching spelling'. *Journal of Educational Psychology*, 17, pp. 220-233.
- Vaddapalli, S (2012). Journal of Educational and Psychological Studies JEPS, Peer Reviewed *Journal of Sultan Qaboos University*, 9, 4, pp. 2218 – 6506
- Walla, R., (2006). Characteristics of Effective Spelling Instruction. *Reading Horizons: A Journal of Literacy and Language Arts*, 46 (4). Retrieved from https://scholarworks.wmich.edu/reading_horizons/vol46/iss4/3
- Westwood, P. (2005). *Spelling: approaches to teaching and assessment*. Camberwell, VIC: ACER Press.
- Westwood, P. (2014). *Teaching spelling: exploring common-sense strategies and best practices*. Hoboken: Taylor & Francis.
- William, A ., Mark, D., Kemighan, W., (1990). A spelling correction program based on a noisy channel model. 205-210, <https://doi.org/10.3115/997939.997975>
- Willingham, A (2015). *Raising kids who read*. San Francisco, CA: Jossey-Bass.
- Wing, A. M., & Baddeley, A. D. (1980). Spelling errors in handwriting: A corpus and distributional analysis. In U. Frith (Ed.), *Cognitive processes in spelling* (pp. 251–285). London: Academic Press.

Wolf, M. (2007). *Proust and the squid: The story and science of the reading brain*. New York, NY: HarperCollins.

Wolf, M. (2008). *Proust and the squid*. New York: Harper Collins.

Yanyan, L. (2015). Spelling errors analysis in college English writing. *Theory & Practice In Language Studies*, 5(8), pp.1628-1634. doi:10.17507/tpls.0508.12

Zahida, R., Farrah, M. & Zaru, N. (2014). The impact of three types of written feedback on the motivation and writing skill of English major students at Hebron University. *An-Najah University Journal for Research - Humanities – 28, 5, (1275-97)*.

Appendices

Appendix A:

Consent Form

Title of thesis: “*Spelling Errors made by Fourth Year English Department Students in Zawia University*”. This study devoted to provide the most appropriate and effective methods and strategies teachers may adopt in order to rise their students’ awareness of spelling rules . It also aims to determine the main difficulties students encounter when they come to write, and to identify and specify the most common types of spelling errors committed by fourth year students in English Department in Zawia University. The researcher has clearly explained all the statements have mentioned above and I agree with her that spelling is a controversial issue. The researcher has informed me that my identity will be anonymous in the research report and my participation will be just as a volunteer and I have the choice to pull out at any time, therefore, I agree to take a part in this study.

Name of participant:

Signed:

Date:

Appendix A:

Sample of Writing Task

Q3: Compare and contrast **one** of the following topics: (15 marks)

1. The advantages and disadvantages of the Internet.
2. Two sports that you like to do.
3. Two cities that you know.
4. Two movies/ books that you enjoyed.

6

The method of organization you will follow is ~~Two cities~~ ^{China} China and Japan
~~located~~ ~~capital~~ ~~both~~ ~~China~~ and ~~Japan~~ both in found
Eastern Asia and speak language that though
different, are closely related. China is located between
and north Korea and borders south China sea, yellow
sea, Korea Bay, and the east China sea. Japan on the other
hand is ^{located} east of Korea between the sea of Japan
and the north Pacific ocean. They both have a coastline
that runs into my thousand kilometers ~~same~~ ~~stretch~~ ~~one~~
would that being that the ~~can~~ countries are the same.
regain and close to each other, they should ~~essentially~~ ^{essentially}
~~The Chinese~~ ~~the Japanese~~ ~~travel~~ ~~and~~ ~~close~~ ~~to~~ ~~each~~ ~~other~~
The Chinese streets travel and Japan relax and amazing.
The first major difference between Chinese and Japan
comes in their food while the Chinese food is spicy
and involves a lot of frying and roasting. ~~Food~~ ^{their} the Japanese food is far less spicy and has very subtle
flavors to other local in Asia, China and Japan.
I like music and Dancing in streets & live & amazing
and ~~the~~ sweet music Dancing streets

Addition + omission
+ substitution + disordering

Action

3: Compare and contrast **one** of the following topics: (15 marks)

1. The advantages and disadvantages of the Internet.
2. Two sports that you like to do.
3. Two cities that you know.
4. Two movies/ books that you enjoyed.

9

The method of organization you will follow is **black** **technology** **Internet** **communication** **education**

Internet mean a small world into our world. Internet is a useful **technology** in the world. People use it from **amalgam** in the live them. it is a useful to human for learning and a lot of things in life. **Psychology** Internet is technology that used **programmes** good in **education** and **psychology** of things. However it is a useful in **communication** with people into and out come world. but some people use not good because bad for **health** body and a lot of trouble. Internet is usually it is good our in live. but usually it is not good for our body and our live. Internet have advantages and disadvantages.

Internet advantages, it is useful for live, it is useful **programmes** education. when want learning different language, **also** types **teaching**. Internet use **communication** about world and learning. **teaching** information about other **countries**, also use **psychology** when **teaching** want know information about **doctors**, it is very **technology** a good in world.

Internet disadvantage, **it is** because **bad** use people bad use, so Internet was trouble in live people. it is used a lot because in trouble in **eyes** and **brain**. Internet use **children** from bad when go **online** in **bad** programmes. people usually use internet learning **bad** words and things.

Internet is a good **technology** in world. it is can **communication** about world and **teaching** a good things. but for internet bad use in world. it is **cause** a lot trouble in body human and learning. **easy** things bad things.

Omission + disordering
+ substitution

6

Q3: Compare and contrast **one** of the following topics: (15 marks)

1. The advantages and disadvantages of the Internet.
2. Two sports that you like to do.
3. Two cities that you know.
4. Two movies/ books that you enjoyed.

2. New York and Los Angeles.

The method of organization you will follow is

are two big cities found within the United States. ^{Popular} Americans very large and populous, the cities are found in different states. New York City being in New York while Los Angeles being in California.

They both attract thousands and are costly to live in while the cities have some similarities and may be attractive to various people depending

on their lifestyles and preferences. New York City and Los Angeles are vastly different especially in their climate, housing, population and transportation.

Climate significantly differs with that of Los Angeles. Hallie Beveridge (2013) notes that in New York the winter is glistering and frosty. As such the atmosphere is classic in the quiet season this making it possible to engage in such activities as snow man assembling and ice skating.

In warmest temperatures are usually experienced in the southeastern lowlands. Note worthy however, people who are conditioned hospitable despite the snow fall also has wet weather during winter. The rainy season occurs between November and January.

The housing characteristics are also different between New York and Los Angeles. The median age of home in Los Angeles. Homes are 51% less likely to be rented in Los Angeles than New York. Best places net (2017) while the median cost of home in (52)600

omission + substitution + disordering

Answer

3: Compare and contrast **one** of the following topics: (15 marks)

1. The advantages and disadvantages of the Internet.
2. Two sports that you like to do.
3. Two cities that you know.
4. Two movies/ books that you enjoyed.

9

The method of organization you will follow is **black**

technology

Internet

Communication

education

Internet mean a small world into our world. Internet is useful a +

technology in the world. people used from amagay in the live them. it is a useful to human for learning and alot of things in life. **Psychology**
 Internet is technology that used program's good in education and **psychology** of things. However it is a useful in communication with people into and outcome of trouble. Internet is usually it is good our in live, but usually it is not good for our body and our live. Internet have advantages and disadvantages.

Internet advantages, it is useful for live, it is useful **programmes** education, when want learning different language and type's **teaching**. Internet use a communication about world and learning information about other **countries**, also use **psychology** when **teaching** want know information about **doctors**, it is very technology a good in world.

Internet disadvantage, it is because ~~bad~~ **bad** the people bad used, so internet was trouble in live people it is used alot because in trouble in eyes and brain. Internet used children from bad when go online in bad program's. people usually used internet learning bad words and things.

Internet is a good technology in world. it is can **communicate** about world and teaching a good things. but for internet bad used in world, it is cause alot trouble in body human and learning ~~every~~ **bad** things bad things.

Omission + disordering

+ substitution

Q3: Compare and contrast **one** of the following topics: (15 marks)

1. The advantages and disadvantages of the Internet.
2. Two sports that you like to do.
3. Two cities that you know.
4. Two movies/ books that you enjoyed.

7

The method of organization you will follow is point by point.

Demochik and Sanaa

Demochik and Sanaa two capital cities that they still alive from ages to this days. they known as tourist attraction from all the world people they carry a sense of arabic traditional in their daily live even with the wars that faces two cities, they still strong and have a peace live and even they are both arabic capital cities they have a different things that can not be similar such as general looks of cities, traditional, food and weather but all have point of similarity.

The general looks of cities very different in Demochik you can know that the old building effected by the wind of war from 2011 until this moment, the old building known that it used as a big market that solds the fabric and food and Jewellery and it still use this time but not as the past time in contrast Sanaa building still strong and with it great looks it still used as a big market for iron and metal item such as a traditional weapons.

The traditional in two cities also different in Demochik you can found a woman with out islamic wear and also there wedding can be men and men and woman together without problem that because they have different it has a two or more religions on other hand, in Sanaa you will note that all the woman are wear a veil and islamic dresses even there wedding divided into one for woman and another for men that because respect woman and in addition they have no another religions except islam.

For another different between two cities it's a food Demochik's food is very famous in another countries its base alot of dishes that all the world want to test it and the Demochik's chefes popular around the world but as the same Sanaa that there dishes is not very famous and not like from other countries also the Sanaa food chefes not very interest with there traditional food to carry it around world to know it.

The weather is totally different Demochik weather is similar to turkish wather it's rainy and frozen that what make it a great city to visit it and doing your favorite sports on the snow on other hand Sanaa is dry wather with some rain for some month of year it's cold but all the time you can enjoy with sunny weather in mountain.

The similarity of two cities that they are the both faced the fire of revolution and wars until this moment Demochik face the revolution in 2011 and development to be a world war with a islamic state and Al-Nusra also Sanaa faced revolution and be biggest to being a world war with Al-bathy militia and Al-Qaeda faced the islamic state.

Omission + Substitution + Addition + Disordering

Appendix B

The Interview Questions for Students

1. Do you think spelling is important? Explain why?
2. Do you have difficulty related to the spelling of English words? What are they if any?
3. Do you avoid using any words when you write? If so, explain why?
4. Do you think you can spell any new words correctly? If not, what are the reasons behind that?
5. To what extent do you think your reading texts help you to improve your spelling?
6. Do you think dictation is important to improve spelling words?
7. What is the best way you suggest to overcome spelling difficulties?

Appendix C

The Interview Questions for Teachers

1. Do you think spelling is important for students? Why?
2. How often do you teach spelling?
3. Do textbooks have enough exercises for teaching spelling?
4. Are you aware of any specific problems that Arab learners of English might have in learning English spelling?
5. Do you know any spelling rules that can help you in teaching English spelling ?
6. Mention any alternative methods you use to address spelling.