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Exploring the Influence of Content Schema on L2 Reading Comprehension

A Case Study of Third Year EFL Students at Yahia Fares University, Medea

Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master in Linguistics

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ABSTRACT

Deemed as a skill with a didactic importance that falls in part with writing, listening and speaking, reading comprehension as being a tacit skill, that identifies with a number of cognitive processes, has long been sidelined with. Reading comprehension is a tacit knowledge that has concrete outcomes. This skill is suggested to be the process by means of which meanings are reconstructed by readers through drawing on their stored knowledge (Goodman, 1967). In this line of thought, schema theory (Bartlett, 1932) displays reading comprehension as being structured into cognitive schemes that are recognized as schemata. There are three types of schema: linguistic schema, formal schema, and content schema. This study is concerned with exploring the influence of content schema on L2 reading comprehension. In order to fulfill the aims of this study, we investigated the impact of the absence of content schema on L2 reading comprehension, as well as the effect of activating the appropriate content schema on students of English within LMD Algerian learning context. This investigation was carried out on data collected by virtue of a structured questionnaire and reading comprehension tests conducted with twenty (20) students of English in the Department of English at the University of Yahia Fares in Medea. The diversity of the employed methods rendered triangulation of the results possible, running to a cognitive-based gauging of reading comprehension. The aggregated data were submitted to a descriptive statistical analysis along with qualitative thematic analysis. The results of this study revealed that possessing the appropriate content schema influences L2 reading comprehension positively, while lacking the adequate schematic content knowledge obstructs comprehension. Additionally, this study found that the efficiency of activation procedures is determined by how developed the content schema of readers is.

Key terms: Reading, comprehension, reading comprehension, schemata, content schema, activation.

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الملخص

لقد حظيت قراءة الفهم بالدَعم لوقت طويل باعتبارها مهارة ضمنية تتطابق مع عدد من العمليات المعرفية، وكونها مهارةً ذات أهمية تعليميَة شأنها شأن مهارة الكتابة والاستماع والتحدث. قراءة الفهم هي مهارة مجرَدة ذات نتائج ملموسة، فهي العمليَة الَتي يتم بواسطتها إعادة بناء المعاني من قبل القراء من خلال الاعتماد على معارفهم المختزنة (غودمان، 1967، ص125). وفقًا لنظريَة المخطَط العقلي، فإنَ هاته الأخيرة يتم رصَها في شكل مخطَطات معرفيَة يطلق عليها بالمخطَطات العقليَة، ولها ثلاثة أنماط: المخطط اللَغوي والمخطَط الشَكلي ومخطَط المحتوى. تهتَم هذه الدَراسة باستكشاف مدى تأثير مخطَط المحتوى على قراء الفهم بلغة غير اللَغة الأم. من أجل بلوغ أهداف هذه الدراسة، قمنا بالتَحقيق في مدى تأثير غياب مخطَط المحتوى على قراءة الفهم باللَغة الثَانية، وكذا تأثير تنشيط مخطَط المحتوى المناسب على قراءة فهم اللَغة الثَانية، عند عدد من طلاب تخصص اَلغة الانجليزية في الجزائر. أُجريت هذه الدراسة على بيانات تم جمعها من خلال استبيان منظَم بالإضافة الى اختبارات فهم القراءة التي أجريت بالاستعانة بعشرين (20) طالبًا من قسم اللغة الإنجليزية في جامعة يحيى فارس في المدية. أدَى تنوع الأساليب المستخدمة إلى جعل تثليث النتائج ممكنًا، مما سهَل عملية قياس الجانب المعرفي لمهارة قراءة الفهم. قمنا بتحليل البيانات الكميَة المجمَعة تحليلاً إحصائيًا وصفياً بينما تم تحليل النَتائج غير المنظَمة عن طريق اتَباع التحليل الموضوعي النوعي. أوضحت نتائج هذه الدراسة أن امتلاك مخطط محتوى مناسب يؤثر بشكل إيجابي على فهم قراءة اللغة الثانية، في حين أن الافتقار إلى المعرفة الكافية بالمحتوى التخطيطي يعيق الفهم. كما توصَلت هذه الدراسة الى أنَ مدى نجاعة تقنيات التنشيط يعتمد على طبيعة مخطَط المحتوى عند كلَ قارئ.

الكلمات المفتاحيَة: القراءة، والفهم، وقراءة الفهم، والمخططات العقلية، ومخطط المحتوى، والتنشيط.

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DEDICATION

This thesis is the fruit of five years of burnouts, sleepless nights, and blank papers, that I would love to dedicate to;

The one who has always believed I could reach the stars, ***My Mother****;*

To the one who had always produced the loudest commotion in the crowd, my only supporter, and the only supporter that matters, ***My Sister****;*

To the one who fueled my ambition past the glass-ceiling and kept its broken fragments as a souvenir to feed my wild agenda, ***My Bestfriend*** *and* ***long-lost Soulmate****;*

To the best teacher in the Milky Way, ***Mr.Bensedgua,***

To the future lawyer, ***My Not-so-little Brother****, and;*

The ones who wished me the best and nothing but the best.

To the one who can reach the starts, myself …

GLOSSARY

Term	Definition
Text	Merriam Webster defines a text as “the main body of printed or written matter on a page”. In this research we consider a text to be a written or printed material that conveys a certain meaning. It was used interchangeably with “textual material” in this thesis.
Background Knowledge	According to the Top Hat Glossary, “background knowledge refers to the information, no matter how limited, a learner has at the start of learning a new topic. This knowledge will likely have been gathered over time in a variety of ways”. This definition aligns with that of the researcher. In this thesis, background knowledge was used interchangeably with “prior knowledge” and “previous knowledge”, but not with “schematic content knowledge”. The reason being, background knowledge contributes, among other factors, towards the inception of a content schema.

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GENERAL INTRODUCTION

1. Background and Motivation for the Study

The process of learning a foreign or second language is based upon four underpinnings: reading, writing, listening, and speaking. These four paramount aspects of learning a language have been identified as the four skills. Although the realm of English teaching recognizes the utter significance of each of these skills, some curricula and textbooks of teaching English as a Second Language (ESL) emphasizes the importance of implementing a speaking and writing centered teaching and learning environment on the expense of the remaining skills (Brown, 2001). The reason being is that reading and listening are regarded as passive skills that do not actively contribute to the advancement of learners; however, these misconceptions were counteracted by the integration-based instruction, which treats language as a holistic entity whereby reading is implemented as part of one or two other interconnected skills (Brown, 2001). Nevertheless, reading and listening were still undermined and deprived from the attention they deserve.

Despite both, listening and speaking, are not as underscored as they should, the former still had an edge over the later in terms of the received attention. Listening is a process that enables the perception of speech, which in turn leads to generating and internalizing the linguistic input needed for producing language (Brown, 2001). In this respect, speaking and listening are correlated skills in which language users cannot manufacture a language unless they receive the raw materials transported through listening. If we project this suggestion onto reading, reading is a skill that allows for a flow of input into the processing systems of readers. Henceforth, the production of language through writing depends on the efficiency of the reading skill.

Research on reading in second language is as recent as the seminal article of Kenneth Goodman released in 1967 under the title: "*Reading: A Psychological Guessing Game*". This article showcased the cognitive reality of reading, and highlighted the correlation between this skill and the prior knowledge of readers. Starting from that point, the body of literature as far as reading is concerned started augmenting incrementally. Researchers begun to heed the complexity of reading and attempted to explain the underlying cognitive processes to this receptive skill. In the respect, reading was starting to be defined in terms of bottom-up or top-down processing, or a combination of both. Bottom-up processing was explained as the recognition of linguistic cues of different natures and associate them with their relevant

functions. Whereas top-down processing, was identified as the operation by means of which the detected linguistic cues are assigned with meanings. As time progresses, the fire wall forged to separate these processes was demolished and they began to be deemed as complementary operations where feedback between the two is possible. In other words, bottom-up was considered as the process responsible for deciphering the linguistic for of texts, whereas top-down processing was deemed to be responsible for handling the meanings embedded in these texts (Prathomwat, 2019). Therefore, reading takes place at the bottom-up level while comprehension is the result of top-down operations. The concept of reading comprehension emerged distinctly from how reading was traditionally defined.

Reading comprehension is viewed as an interaction between the background knowledge pf readers and the meanings communicated by writers through texts (Goodman, 1967). In fact, more meanings are contributed by readers, in a way that comprehension is determined by the of knowledge stored in the memory of every reader. Hence, readers assign to linguistic forms meanings by picking out concepts from the data that are already stored in their memories. Data are arranged into structures which are known as content schemata. These cognitive structures are activated and stimulated by texts and lead to comprehension. along this line, cognitive structures of readers are heterogeneous and result in contrastive understandings and interpretations of the same text. Through this investigation, we attempt to fathom out the effects of content schemata in particular on the reading comprehension of a second language (L2), in order to introduce the context of the researcher to the significance of the schematic content knowledge of readers in carrying out reading comprehension tasks effectively.

2. Statement of the Problem

Reading comprehension is the product of an interaction between the schematic content knowledge of readers and the concepts communicated by writers through texts (Brown, 2001). Thus, reading comprehension is a complex and highly abstract mechanism that engages cognitive procedures for the sake of achieving a full grasp of the text. Comprehension in reading comprehension tasks is relative, in which readers choose meaning from the pre-existing mental structures and assign them to the textual elements under consideration. The cognitive reality of this skill, imposes on researchers to abide by the research instruments that can be directly manipulated by readers. In this context, this investigation centers on exploring the functionality of reading comprehension skills under the presence or absence or the appropriate schemata.

The body of literature that is concerned with examining the influence of content schema on L2 reading comprehension mostly showcases the outcomes of possessing the adequate mental structure. This study however, approached this issue from a different angel whereby the researcher observed the consequences of lacking the requisite content schema on the performance of EFL learners on L2 reading comprehension within Algerian higher education context. Moreover, most researchers gravitated towards showcasing the role of cultural content schemata on reading comprehension. Although the sociocultural factor plays a significant role in determining the understanding of readers of reading materials (Carrell & Eisterhold, 1983), it did not exude surprising results towards the end of the conducted studies. In other words, the findings of similar research attained identical results. Exploring the nuances between the performance of readers with homogeneous sociocultural backgrounds was not prolific in the literature in general, be it at the local or international level. Despite the fact that a similar venture requires more delicacy and meticulousness in treating the collected data due to the minor variations in content schemata, it acknowledges the uniqueness of the schematic content knowledge of every reader.

The performance of EFL learners a propos to the consistency between their schematic content knowledge and the content of the text at hand, were not heavily explored in Algeria. In fact, no study was found to have investigated the influence of content schema on L2 reading comprehension. Therefore, this study is geared towards examining the influence of content schemata on L2 reading comprehension among readers who have a common sociocultural background in order to reveal how their pre-established mental structures affect their performance in reading comprehension tasks.

3. Significance of the Study

Our interest in the correlation between reading comprehension and content schemata stems works towards understanding the cognitive factors underlying the performance of L2 learners in reading comprehension tasks. That is, understandings that are inconsistent with the meanings intended to be conveyed through the text, may originate in readers lacking the appropriate schematic knowledge, or possessing a malformed content schema. In this context, this study does not only aim to showcase the differences between the performance of readers who possess the appropriate content schema and those who lack it, but also recognizing the possibility of having an incomplete content schematic knowledge.

Furthermore, this study demonstrates that the presence of an appropriate content schema requires external stimuli in order to avoid possible errors, such as the activation of an irrelevant schema. The capacity of the human memory allows storing an infinite number of data., this gives rise to the fact that the concepts recalled by readers correspond to the reading comprehension aims, texts should be strategically cued. Nevertheless, textual cues are external stimuli that can only activate what readers actually have stored in their memory.

This research brings into light that comprehension is largely determined by the schematic content knowledge of readers. For external stimuli is only able to conjure up the pre-existing data. Unfamiliar elements in a text become subject to inferencing which readers carry out by virtue of their schematic content knowledge.

4. Objectives of the Study

Given the importance of the reading comprehension skill, this study seeks to elucidate the influence of a cognitive-biased factor which is content schemata, on the performance of EFL learners, more particularly, third year English students at Yahia Fares University, henceforth, abounding the scope of L2 reading comprehension with further cognitive evidences prior to comprehension. More concretely, this research explores if content schemata hold an impact on L2 reading comprehension. Additionally, this investigation targets discerning if the absence of schematic content knowledge is capable of precluding comprehension in L2 reading comprehension tasks. Furthermore, this investigation examines the role of activation in L2 reading comprehension. In this context, we attempted to verify the efficiency of using activation procedures and adequate textual cues in harnessing the required cognitive structures.

5. Research Questions

In order to fulfill the objectives of this research, this researcher will attempt to inform the following questions;

Statement of the Problem

Q) Does the schematic content knowledge of readers, effect L2 reading comprehension?

Sub-questions

Q1) Does the absence of appropriate schematic content knowledge influence L2 reading comprehension?

Q2) Does the activation of appropriate content schemata impact L2 reading comprehension?

6. Hypotheses

We will attempt to verify the following hypotheses over the course of this research;

HP1) The presence of schematic content knowledge affects the performance of readers in L2 reading comprehension tasks positively.

HP2) The absence of schematic content knowledge affects the performance of readers in L2 reading comprehension tasks negatively.

HP3) Activation enables readers from calling into action the pertinent schematic content knowledge more easily.

7. Structure of the Thesis

This research complies with the guidelines of the traditional simple model. Thus, it consists of a general introduction, a body of four paragraphs, and a general conclusion.

The first chapter encompasses review of the pertinent literature. In this chapter we tracked down the approaches and studies conducted in the area of reading comprehension and content schemata. Additionally, we defined the key concepts in this research including but not exclusively, reading comprehension, reading, comprehension, and schemata. We also explained the different underlying cognitive processes to reading and the building of cognitive structures. Then, we elaborated on the role of schema and its different types.

The second chapter portrays the research methodology used in this research. Moreover, we presented the target population of this research and explained the sampling procedures used by the researcher in selected the subjects under investigation. Then, we elaborated on the data instruments used to collect the requisite data for this investigation. Subsequently, we discussed the qualitative and quantitative procedures used in analyzing the gathered data.

In the third chapter, we provided the analysis and the graphic representation of the collected data. This chapter encompassed the results of two data collection instruments, while the results of the preliminary test were excluded as they were merely used to boost the credibility of the study, and had no effect on the results of the study. Furthermore, this chapter contain the statistical analysis of each activity which was carried out using the Statistical Package for the Social Sciences (SPSS), along with the results of the thematic analysis used to analyze unstructured data.

Chapter four is concerned with discussing the findings attained by virtue of the qualitative and quantitative data obtained by the researcher. In addition to that, we provided an exhaustive explanation of the findings of this research, by means of which we answered the main question of this research, along with the sub-questions. Finally, we tested the compatibility between the advanced hypotheses and the findings of this study.

CHAPTER ONE: LITERATURE REVIEW

Introduction

Reading comprehension is a complex process during which bottom-up processing is carried out to enable comprehension of texts, while top-down operations are launched to facilitate comprehension and compromise for shortcomings occurring at the level of reading. Reading on its part, takes place as a result of an interaction between written or print materials, and the prior knowledge of readers. The role of background knowledge in reading comprehension was first formalized by Bartlett (1932) in his "*Remembering: A Study in Experimental and Social Psychology*". Bartlett's observation laid the foundation for further investigations on the significance of background knowledge in reading comprehension, and namely L2 reading comprehension. In this context, schema theory was conceptualized, suggesting that readers rely on their background knowledge in comprehending texts. The schema theory suggests that comprehension occurs as a result of a collision between the background knowledge of readers and the printed or written text being read. In fact, readers contribute more meanings to the text than those transmitted by the writer. In this regard, different types of schema were recognized: Linguistic schema, formal schema, in addition the type of our concern; content schema. In this chapter we will delve into the theoretical framework of this research in addition to expounding the theories that will be frequently encountered throughout this thesis. Besides that, we will provide an overview of the different concepts embraced as part of this study.

1.1. Reading Comprehension

The notion of reading comprehension extends far beyond the simplicity of its label. In fact, it would be unfruitful to seek a single fixed definition to expound it, for there are several definitions that vary by means of the angle a researcher opted for to tackle the issue at hand along with its underlying components. Cahyono and Widiati (2006) simplified their view of reading comprehension in "*An activity aimed to understand the messages of a particular text*" (p.37). They implied that it is the process by which the reader untangle meanings contained in a written or print material. This definition raises questions with regard to the level of correspondence between meanings communicated by the writer and those grasped by the

reader, in which they imposed that successful understanding of texts can only be fulfilled if the intake of readers (comprehension) is a cognitive replica of the ideas conveyed by the writer. In this research, we endorse the view of readers as an active agent in the process of reading comprehension. In line with that, Veeravagu, Muthusamy, Marimuthu (2010) maintained:

> Reading comprehension is a thinking process by which a reader selects facts, information or ideas from printed materials; determines the meanings the author intended to transmit; decides how they relate to previous knowledge and judges their appropriateness and worth for meeting the [reader's] own needs and objectives. (p.206)

Reading is carried out to satisfy readers' needs. Consequently, texts are approached differently by readers for they have different reading motives, and interpreted differently by readers as a result of their heterogeneous backgrounds and hence prior knowledge. In a nutshell, reading comprehension is an intricate multistep task (Mckee, 2012, p.45), whereby readers' pertinent background knowledge and lexicon are activated in order to fulfil the aim of the reading activity, which is "comprehension" in our research. Khoiriyah (2010) explained reading comprehension in terms of the role of the background knowledge of readers:

> Reading comprehension is the act of combining information in a passage with prior knowledge in order to construct meanings. In addition, reading comprehension can be defined as a thinking process through which readers become aware of an idea, understand it in terms of their experiential background, and interpret it in relation to their own needs and purpose. (p.1)

This definition accentuates the contrastive nature of readers' interpretations of the same text. Prior knowledge of readers does not only interfere with comprehension; it determines the way readers judge the content of a text and how they interpret it.

The number of instances where reading comprehension was addressed as it is without any further parsing is limited. Most researchers steered towards breaking it down into a couple of macro constituents: reading and comprehension, in order to be able to operate on this concept under a less blurred lens. Definitions would thereafter surface as a result of the intersection between how "reading" and "comprehension" are individually represented.

In reading comprehension, reading and comprehension are composite parallel processes in which "*The process of reading deals with language form, while comprehension has to do with the final result, which deals with the language content*" (Gomez Torres & Avila Constain, 2009,

P.56). Gomez Torres and her colleague proceeded to attribute to reading the role of establishing "a link between the writer and the reader". This link is detected at the level of comprehension, where "*The reader applies many strategies to reconstruct the meaning that the author is assumed to have intended*" (Khoiriyah & Sulistyani, n.d., para.9). The process of reconstructing meanings occurs as a result of comprehending, which takes place through conjuring up "*a wide range of background knowledge to reading*" (Grabe, 2009, as cited in Khoiryiah, n.d., para.7).

1.2. Reading

Gomez Torres & Avila Constain (2009) described reading as "*a complex problem-solving process*", during which readers "*[make] sense out of a text not just from the words and sentences on the page, but from ideas, memories, and knowledge evoked by those words and sentences*" (p.56). Reading consists of a comprehension of the potential meaning of a text, an activation of the most relevant prior knowledge based on the interpreted meaning of readers, and a collision of the aforementioned. Reading on its end, triggers a linear set of stages beginning with automatic recognition of words, independent of the context in which they are located. Word recognition, "can be broadly defined" by Cadime et al. (2017), "as the ability to read isolated words" (p.592). This procedure consists of converting graphemes into "corresponding phonemes". "Grapheme-to-phoneme conversion (G2P) refers to the task of finding the pronunciation of a word [based on] its written form" (Maximilian & Hermann, 2008, p.2). Simply put, while reading, letters or graphic signals are matched with phonemes from the sound system of the reader, leading to activation of the corresponding combination of graphemes from the lexicon, and subsequently triggering an instant recognition of the printed or written letters.

At this point, the reader makes sense out of the text components in isolation from their location in the text or the function they perform.

1.3. Comprehension

1.3.1 Cognitive Processes of Comprehension

Comprehension is an intricate process that could be simplified by means of the Structure Building Framework (SBF), which is a model developed by Gernsbacher for the purpose of designing a "framework" for comprehension as she maintained that "*language comprehension [is] structure building*" (1995, p.289). Henceforth, the goal of comprehension According to the SBF is to "*build coherent mental representations or structures*" (Gernsbacher, 1997, p.265),

which is achieved through the implementation of a number of "*largely automatic and unconscious*" (Walter, 2007, p.17) cognitive processes. These processes are as follows: laying a foundation for a mental structure, mapping new information onto the developing mental structure, and shifting to build a new substructure (Walter, 2007, p.16) or structure.

1.3.1.1. Laying the Foundation

The initial cognitive process in the SBF model is "laying the foundation" (Gernsbacher, 1995, p.289) for mental structures. Taking reading as an example; while reading, readers are capturing a number of cues, referred to by Gernsbacher as "incoming stimuli", that activate "memory nodes". Memory nodes are "the building blocks of mental structures" and "Their initial activation forms the foundation of mental structures" (Gernsbacher, 1997, p.289). In order to comprehend large "units, such as sentences, paragraphs, and story episodes", Gernsbacher (1995) explained that "comprehenders use the first segments (i.e., initial words, sentences, and pictures) to lay foundations for their mental representations" (p.291). once the foundation of the mental structure is laid as a result of activating memory nodes, a developing structure is established. Further incoming stimuli will either augment that developing structure or trigger the formation of a different substructure.

1.3.1.2. Mapping

After laying the foundation for the mental structure, "*the incoming information that coheres with previous information is mapped onto the developing structure or substructure*" (Gernsbacher, 1997, p.270). In other words, "*If new information is coherent with the information in the ongoing structure, it activates the same as well as connected memory nodes*" (Walter, 2007, p.17); if the new information activates the same memory nodes that led to establishing the foundation for the ongoing structure, they will be stacked on top of that structure. The more an incoming stimulus matches (coheres with) the developing structure, the more likely it is for that stimuli to be layered on top of the under-construction foundation.

1.3.1.3. Shifting

The last cognitive process is labeled shifting. It occurs when *"[the] incoming information is less coherent, comprehenders shift from building one substructure and develop another*" (Gernsbacher, 1997, p.271). "*This substructure is linked with the foundation but is not linked to the ongoing substructure*" (Walter, 2007, p. 17).

The researcher chose the Structure Building Framework (SBF) to explain how mapping incoming data into pre-established schemata is carried out.

1.4. Comprehension of Texts in L2

Walter (2007) asserted that "*Comprehension is a general cognitive skill*" (p.16). He forged his observation upon the Gernsbacher's Structure Building Framework (SBF), despite the breadth of comprehension models adopting the same core concept of "building mental representations of texts" as the latter. He specifically opted for the SBF as a result of the "large body of empirical work" supporting the hypothesis. The findings revealed that reading comprehension is "based on general cognitive processes and mechanisms". The term "general" is particularly used to equate reading comprehension with the comprehension of elements perceived in ways other than reading. The same set of cognitive processes are responsible for executing comprehension "regardless of the mode of perception". These cognitive mechanisms are general in the sense that they "*are not specific to listening or reading*" (MacDonald & MacWhinney, 1990, as cited in Walter, 2007), or even to language at all (Gernsbacher, Varner & Faust,1990, as cited in Walter, 2007). They are the same whether comprehension is based on reading, listening, looking at picture stories or watching silent filmed stories according to Gernsbacher (1990) (as cited in Walter, 2007). "*So skill in comprehending texts is not a linguistic skill; rather, it is a general cognitive skill developing at the same time as the L1, but independently from it*" (Walter, 2007, p. 20).

1.5. Factors Involved in Reading Comprehension

1.5.1. Vocabulary and Semantic Knowledge

The comprehension of texts perceived through reading is strictly related to the size of vocabulary of the reader. Hsueh-Chao and Nation (2000) "*estimated that readers must know about 98% of the words in a text to be able to understand the text without any other assistance*" (as cited in McKee, 2012). Readers would rely on their top-down processes such as inferencing to guess the significance of unfamiliar words based on the familiar cues in the text. Babayiğit (2011, as cited in McKee, 2012) explained that "*vocabulary knowledge can influence reading comprehension in two ways: directly through its effect on the semantic of the text as well as indirectly through its effect on word reading skills*" (p.48). A study of at-risk second graders revealed that verbal IQ was a statistically significant predictor of reading comprehension in both the beginning and end of school year assessments (Berninger, Abbott, Vermeulen, & Fulton, 2006, as cited in Moore, 2014). Poor reading comprehension skills were also attributed

to lack of semantic awareness characterized by an inability to attach meaning to words (Sencibaugh, 2007, as cited in Moore, 2014). Semantic awareness enables readers from linking written or printed words, to the meanings stored in the long term memory of readers. The latter process was explained in the reading section.

1.5.2. Background Knowledge

Referring back to the definition of Harris and Hodges (1995), who described reading comprehension as the process of reconstructing meanings obtained from texts "*through a reciprocal, holistic interchange of ideas between the interpreter and the message*" (p.39). The reciprocal interchange of ideas between readers and the material being examined, results in contrastive understandings of the same material due to the contrastive background knowledge of readers. Cromley and Azevedo (2007, as cited in Moore) discovered that the latter is a significant contributor to comprehension, as is vocabulary. Background knowledge is a compilation of prior learning, as well as prior mental images of text that are stored in long-term memory (Moore, 2014). This interchange of ideas between readers and texts, is referred to by Alyousef (2006, as cited in Khoiriyah & Sulistyani, n.d.) as an interactive process, whereby readers "*interact dynamically with the text [engaging] various kinds of knowledge: linguistic or systemic knowledge as well as schematic knowledge*" (Khoiriyah & Sulistyani, n.d, para.3). Background knowledge also encompasses reading conventions, text conventions and structures, and knowledge of the text content and topic. The significance of background knowledge was explored and theorized by the schema theory research.

1.6. Schema Theory

Schema theory is a cognitive theory that emphasizes the importance of background knowledge in shaping the perception of human beings. This theory has "*as one of its fundamental tenets that text, any text, either spoken or written, does not by itself carry meaning*" (Carrell & Eisterhold, 1983, p.556). Henceforth, Texts are the means through which schematic knowledge is activated and made ready to be accessed by the reader or listener. The main role of texts is to "[*provide] directions for listeners or readers as to how they should retrieve or construct meaning from their own, previously acquired knowledge*" (Carrell & Eisterhold, 1983, p.556). Thus, texts are not independently meaningful, they are transformed into comprehensible discourse by readers, who in turn, collide their pre-existing knowledge with the data they acquire through texts. Reading is described under the schema theory as "*the interactive process of comprehension and efficient schematic mapping that enables the reader to relate the textual*

material to their pre-existing knowledge" (Jafri, 2017, p.2). Efficient reading comprehension only occurs if readers successfully connect ideas in the textual material at hand to their stored knowledge. Schema theory explains reconstructing meanings as the process by which "*every input is mapped against some existing schema and that all aspects of that schema must be compatible with the input information*" (Carrell & Eisterhold, 1983, p.557). This could be carried out through a bottom-up or top-down processing manners.

As explained in the reading section, bottom-up or data-driven processing takes place when texts determine the course that readers' comprehension and interpretation takes. Whereas top-down or conceptually-driven processing "*attempts to map [incoming] data onto an existing knowledge structure*" (Jafri, 2017, p.2). These two types of processing operate concurrently (referred to as interactive processing); bottom-up processing is responsible for catering the requisite data to the top-down processing, which will "*[facilitate] their assimilation if they are anticipated by or consistent with the listener/reader's conceptual expectations*" (Carrell & Eisterhold, 1983, p.557), because Top-down processing only operates under the condition that the incoming data match the schema of readers. "*If the data contradicts the reader's schema, the schema is either amended by the new information or the information is rejected in favor of the existing schema*" (Jafri, 2017, p.2). Alternately, in this research, we suggest that pre-existing schema is also subject to modification by incoming data.

Bottom-up processing monitors the incoming data and makes alerts on the data that does not correspond to the schema of readers. On the other hand, top-down processing "*helps the listeners/readers to resolve ambiguities or to select between alternative possible interpretations of the incoming data*" (Carrell & Eisterhold, 1983, p.557). Readers, rely on both types of processing in order to be able to pick out the adequate set of data from a large textual knitting, and use the obtained data as an input to feed the process of formulating judgments and interpretations.

1.6.1. Definition of Schema

Schemata or schemas, are seen as cognitive constructs by which we organize information in our long-term memory (Widdowson, 1983, p.25). Schemata "*represent elaborate networks of information that people use to make sense of new stimuli, events, and situations*" (Al-Issa, 2006, p.41). These networks are conceived as a result of readers' contact with the world in which they occur. "*Bartlett conceptualized [retrieving schematic knowledge] as occurring at the dynamic intersection between a person and the world to aid environmental adaptation*" (Wagoner, 2017,

p.5). According to this view, the interaction of human beings with the outer world enables them to construct a mental schema which they can exploit in the future. This schema represents the measure against which future input is gauged. Future incoming stimuli are expected to match the established schema, or else they would be altered to fit into that schema. Therefore, the latter is an "*active and continuously revised form of memory that [operates] at the transaction between person and world*" (Wagoner, 2017, p.5). Schemata are constantly modified; every time a schema is activated, it becomes subject to development, expansion, and modification. This happens as a reaction to the regular incorporation of updated related data. Incorporating new data does not only require adapting the incoming data to the pre-existing one, but also entails some modifications on the part of the already established schema, as this process usually results in changing, either ever so slightly or drastically, the perceptions and tokens or readers. Thus, Schemata allow readers to "*construct a recognizable world filled with both permanence and change, where ambiguous objects are shaped into the whole and those that do not in any way fit are left out*" (Wagoner, 2017, p.5). Human beings are capable of sustaining their knowledge and prolonging its lifespan by consistently bringing about changes imposed by their present reality. In this context, readers play a role in constructing the meanings embedded in texts, and texts contribute to strengthening and/ or expanding the schematic knowledge of readers.

Additionally, schemata must be activated in order to be accessed. Failure to activate appropriate schema during reading can hinder comprehension or make it impossible altogether. This failure can occur "*either due to the writer's not having provided sufficient clues in the text for the reader to effectively utilize a bottom-up processing mode to activate schemata the reader may already possess*" (Carrell and Eisterhold, 1983, p.560). Readers may also fail to activate adequate schema when they do not possess a schema related to the topic addressed in the text. Simply put, readers must have a relevant schema that is activated during the process of reading in order to achieve comprehension. Pre-existing schemata of readers enable comprehension, and determine comprehension as well. Thus, comprehension is triggered by the reading material but develops and expands by virtue of the background knowledge of readers. This denotes that comprehension is the outcome of the schematic knowledge called into action during reading, but not necessarily the schemata that the writer intended to activate.

1.6.2. Types of Schema

As previously explained, readers can attain efficient reading comprehension, relatively easily, if their schematic knowledge corresponds to the information included in the reading

material. The schematic knowledge of readers is accumulated and developed by means of their experience with the world. This knowledge is diverse and encompasses readers' prior experience with the format and structure of the text, the linguistic aspect of the text, along with the content of the text. Consequently, schema is classified into: formal schema, linguistic schema, and content schema.

1.6.2.1. Linguistic Schema

Linguistic or language schema describes the overall language knowledge of readers. This type of schema "*refers to one's knowledge of lexicon, syntax and semantics*" (Jafri, 2017, p.4). As illustrated in a previous section, the size of vocabulary of readers is among the determinants of the success of reading comprehension. When readers are familiar with all or most of the vocabulary used in the text they are reading, they face little to no issues at the level of word recognition. The latter is the initial and a highly important step in reading comprehension. The researcher tackled this process in details in the reading section.

1.6.2.2. Formal Schema

Formal schemata represent the conventions that govern the elements a text should have as well as the structural patterns of these elements. Carrell and Eisterhold (1983) defined this type of schemata as the "*background knowledge of the formal, rhetorical organizational structures of different types of texts*" p.560. In other words, formal schemata refer to the accumulated knowledge of readers that assist them in processing the genre, structure, and type of a given text. A couple of recent studies revealed that the absence or lack of a formal schema "affect" the reading comprehension process (Carrell & Eisterhold, 1983, p.561), but to a lesser extent in comparison to the other two types.

1.6.2.3. Content Schema

Content schema stands for the prior knowledge of readers in relation to the topic being consulted. Readers must have previous information on the topic addressed in the text they are reading, otherwise they would not have any appropriate schematic knowledge to conjure up, and hence fail to comprehend the text at hand. The absence of content schema cannot be compensated by the presence of a formal or linguistic schematic knowledge, whereas content schema can be employed to bridge the syntactic gaps, for instance, in a given text. Carrel and Eisterhold (1983) endorsed this observation, "*reading comprehension depends crucially on the reader's being able to relate information from the text to already existing background*

knowledge" (p562). Cahyono and Widiati (2006), also explained in their research that "*one of the weaknesses that less competent readers have is the absence of relevant knowledge structures, or schemata, that can be utilized to facilitate top-down processing*" (p.41).

Reading comprehension cannot happen if readers are incapable of understanding the meanings communicated by the writer. In fact, it would be inadequate to refer to a message carried by a text as a "meaning" if it is not intelligible to readers. Carrell and Eisterhold (1983) argued that "*much of the meaning understood from a text is really not actually in the text, per se, but in the reader, in the background or schematic knowledge of the reader*" (p.559). Readers draw on the text to activate their existing schematic knowledge, and draw on this knowledge to make sense out of the text.

1.6.3. The Role of Content Schema in L2 Reading Comprehension

Readers' understanding of a print or written material is governed by the level of compatibility between their schematic content knowledge and the content of the text. Al-Issa (2006) accentuated that "*Most, if not all, research in this area seem to agree that when students are familiar with the topic of the text they are reading (i.e., possess content schema), …, they are in a better position to comprehend their assigned reading*" (p.41). Suggesting that readers' comprehension is strictly related to the rate of relevance between what they are reading and what they know about it, imposes that "*failure or confusion to make sense of a text is caused by [readers'] lack of appropriate schemata that can easily fit with the content of the text*" (Al-Issa, 2006, p.42).

Reading efficiently could be disturbed by readers' unfamiliarity with the area of specialization of the text, if readers have no prior knowledge in relation to the text, they would not have any pertinent schemata to access and consequently the text would be of no use on its own and could only be deciphered at a purely linguistic level. In this regard, Brown (2001, as cited in Al-Issa, 2006) stated that "the text does not by itself carry meaning", in fact "*More information is contributed by the reader than by the print on the page*" (Al-Issa, 2006, p.42). That is why some interpretations are more rich and accurate than others even though the reading material is the same.

Most research in L2 reading comprehension stand by the significance of content schema. The latter has been proven to affect the core of comprehension in reading comprehension tasks, even remarkably more deeply than the formal schema (Jafri, 2017, p.4). Having a content schema means that readers have a mental foundation upon which they can layer incoming data

(this process is exhaustively explained in a previous section). Readers make use of that foundation to filter out irrelevant data.

Schema can be exploited when it is activated by means of the textual cues inserted in the text being read, as it can be deliberately targeted using pre-reading activities. In this research we focus on the organic activation that occur as a result of capturing external cues contained in a given text. Activation stimulates the target schema and allow for an unproblematic access and exploitation of this schema. Nevertheless, this process fails if readers do not have the requisite stored knowledge (Carrell & Eisterhold, 1983).

1.7. Previous Studies on the influence of Content Schema on L2 Reading comprehension

Research in the area of schema theory, and more specifically the content schema focused research, share one aspect in common, that texts feed on the prior knowledge of readers. The previously explained perspective of Goodman (1967), entails that reading comprehension is a reader-centered process whereby readers use their background knowledge in an attempt to "reconstruct" the meanings carried by the text. Hence, the value of texts bears in the intake of readers, and not in the input itself, for the embedded meaning may not always correspond to the one deduced by readers. To verify this suggestion, a bundle of studies was conducted, attaining diversified results.

Alfaki and Siddiek (2013) conducted an experimental study on the role of background knowledge in enhancing reading comprehension. The experiment was built upon the use of a pre-reading strategy called THIEVES, which is a textbook previewing tactic that aims at setting a mental ground in readers prior to receiving new information via texts. He tested out the efficacy of the THIEVES method in boosting reading comprehension on secondary Saudi male students. Participants were convinced that they were taking a regular exam, which is a stress inducing factor that could have distorted the performance of students in the administered test.

The role of content schema in L2 reading comprehension was also investigated by Soltani and Malaee (2015). They measured the effects of familiar academic topics on proficient reading comprehension using the IELTS test. The study findings revealed that tackling familiar topics boost the performance of ESP learners in reading comprehension, but it cannot show a huge leap when it comes to students with a limited vocabulary supply. The topics used were either general reading materials, or strictly related to students' academic background. The latter study places more focus on the language proficiency level of readers. Whereas, the content knowledge was assumed to be the same in all readers as long as they pursue the same major. In this

perspective, a pretest is an important element in eliminating issues of that sort, by identifying which topics are familiar to the chosen sample.

Several other studies demonstrated the disparity in reading comprehension performance between readers who are familiar with the test's topic and those who are not. Topic familiarity is used interchangeably with schematic content knowledge. However, the effectiveness of a content schema depends on the extent of familiarity of readers with a given topic, and the number of times they have come into contact with that topic. Consistent exposure to a given topic is not equal to topic familiarity. Consistent or recurrent exposure enhance the pre-established schema and increase its chances in easy retrieval (Huston & Oitzl, 1989, p.172). Projecting this view on topic familiarity, it could be seen as an outline for the content schema, that should be reinforced through repeated exposure.

Most research that fallowed, captured the influence of content schema on L2 reading comprehension from a cultural angel. Steffensen, Jogdeo, and Anderson (1978) examined the attitude of readers towards texts pertaining to cultures different from that of readers. The experiment consisted of bringing together a sample of twenty American adults and nineteen Indian adults. The subsamples, Americans and Indians, were equal in terms of sex, level of education, academic major, and marital status. Participants were instructed to read a warm-up text, followed by a vocabulary test, and eventually a reading comprehension test that consisted of reading two texts, one tackled Indian weddings' traditions, while the other described American weddings' customs. Steffensen and his colleagues attained the conclusion that possessing a corresponding schematic content knowledge to the text being processed, facilitates comprehending, learning, and remembering the information contained in that text. Although this study took a cross-cultural approach, the findings were strictly related to background knowledge rather than the nature of the relationship between the discourse and the recipients.

Reading comprehension is carried out efficiently and more rapidly when the cultural foundation on which a text is based matches the cultural background of readers. Nevertheless, the content schemata of individuals coming from the same cultural background also vary from one individual to the other. In this research we view content schema as a cognitive structure that stems from one's prior and repetitive exposure to data that is strictly related to a certain topic. Therefore, we distinguished between schematic content knowledge, and schematic cultural knowledge. The researcher focused on the role of the background knowledge of readers with relation to the content of discourse, and not the peripheral aspects surrounding it, such as culture.

Conclusion

This chapter provided the theoretical underpinning of this research. We have initiated the chapter with a number of definitions of reading comprehension of relevance to our research. Subsequently, we tackled reading and explained reading processing levels to set the ground for the following sections. We proceeded to explain the cognitive process of comprehension using the Structure Building Framework (SBF), which demonstrated how incoming data is structured into schemata, incorporated into establish schemata, or used to modify existing schemata. Then, we addressed the concept of L2 reading comprehension and how our research view comprehension, in which we regard comprehension as a general mechanism that does not change by the change of the mode of perception. Subsequently, we talked about the factors involved in reading comprehension: vocabulary and semantic knowledge, together with background knowledge, where we explained how each of these factors interfere with reading comprehension. In addition to that, we expanded on the role of background knowledge in reading comprehension and how it transitioned into being a focal point by scholars due to the emergence of schema theory. In the schema section, we defined the schema, delved into its different times, and explained why our study emphasizes the importance of content schema in particular in L2 reading comprehension. Moreover, we discussed to the role of content schema in L2 reading comprehension, and how it can affect the performance of readers in reading comprehension tasks. Finally, we described a number of studies that centers around to the role of content schema in L2 reading comprehension, and commented on the accuracy of their results. In this respect, several studies focused on juxtaposing the schematic content knowledge of readers with different cultural backgrounds. Nevertheless, our study stresses the idiosyncratic properties of content schema; that is every individual possess unique schemata that reflect and feature their experience with the world.

CHAPTER TWO: RESEARCH METHODOLOGY

Introduction

This chapter will introduce the design of the research as well as the various research instruments used in collecting the necessary data. We will begin with reiterating the questions and sub-questions of this research, as well as the hypotheses advanced by the researcher prior to the testing phase. This chapter will tackle the sample of this research and explain our motive behind opting for third year English students at the university of Yahia Fares in particular as the population of this study. In this segment of the thesis, we will explain the particularities of the sampling process and how it was carried out by means of the preliminary test designed by the researcher. Additionally, we will dissect the preliminary test and elaborate on how it was used to increase the credibility of this investigation and evaluate the vocabulary knowledge of participants as well as their familiarity with the topic of the text. In this part of the thesis, we will recognize the qualitative and qualitative instruments hired to acquire the requisite data for this research. In this respect, we will delve into the structured questionnaire and reading comprehension tests administered as part of this study. In this section of the thesis, we will also discuss how the output of the employed data collection instruments is going to be independently analyzed using the Statistical Package for the Social Sciences (SPSS) software and thematic analysis (TA) respectively. Subsequently, we will demonstrate how each of the aforementioned data analysis tools were used to analyze the unstructured data as well as the qualitative data gathered by virtue of the structured questionnaire and reading comprehension tests. In this regard, we will elaborate on the thematic analysis and explain the themes created as part of this procedure.

2.1 Research Questions

The research design was forged to collect data so as to inform the main questions and remove the question marks surrounding the sub-questions.

Statement of the Problem

- Does the schematic content knowledge of readers affect L2 reading comprehension?

In order to be able to answer this question, the researcher inspected the impact of the lack of relevant content schemata on L2 reading comprehension. For that reason, two sub-questions were formulated.

Sub-questions

- Does the absence of an appropriate schematic content knowledge influence L2 reading comprehension?
- Does the activation of appropriate content schemata impact L2 reading comprehension?

2.2. Research Design

In order to answer the aforementioned questions, the researcher opted for an exploratory study. This study employed a mixed method approach to collect the requisite data. A combination of qualitative and quantitative data was used towards investigating the influence of content schema on reading comprehension, so as to gain deeper insights into the issue at hand and have a multidimensional grasp of the research topic. Furthermore, a pilot study was conducted to assess the feasibility of the research. The pilot study was executed through a preliminary test, which was also used to shortlist participants who exerted a performance that aligned with the criteria sought after by the researcher. Moreover, Instruments represented in a questionnaire and a reading comprehension test were administered to measure. In order to preclude external factors from interfering with the performance of participants, no time constraints were imposed, students were requested to complete their assigned tasks at their own pace. Participants were not allowed, at any time of testing, to use online nor offline dictionaries, and were not allowed to answer collaboratively to the questions they were handed.

2.3. Population

This study is concerned with investigating the role of schematic content knowledge in L2 reading comprehension. Henceforth, the chosen population consisted of advanced level EFL learners. The reason being, is that students who are able to handle a text comfortably at a linguistic level, allow their top-down processing to operate more efficiently in comparison to those who are consciously invested in understanding the syntactic aspect of texts, enabling their bottom-up processing to take over, and hence more abstract cognitive processes such as inferencing, are suppressed. We targeted third year LMD English students at Yahia Fares University, in the Wilaya of Medea. Our choice landed on this particular population because they have been studying English at university level for three years. Third year LMD English cohort at Yahia Fares University was split into three (3) groups, each group was divided into two (2) sub-groups due to health restrictions: to implement social distancing and limit the spread of COVID-19. Two groups took-part in this study.

English students at Yahia Fares University, are instructed on how to strategically read a text during their first year, and they are trained to write extensive essays and expand on complex and critical ideas during their first and mainly second year. In their third LMD year, students are upgraded to the level of ideas, where they are expected to discuss and breakdown highly abstract concepts and notions. One instance is literature module, during which students are expected to read books designated by their teacher, and produce holistic literary analyses of the books they have read. Third year LMD students are, therefore, capable of reading and comprehending textual materials in English language.

2.4. Sample and Sampling Procedures

To fulfill the aim of the research, which is exploring the influence of content schema on L2 reading comprehension. Forty-six (46) third year LMD English students were invited to partake in a preliminary test. These students have been studying English as their major at Yahia Fares university, and enjoyed eight (8) years of academic instruction in English throughout their middle school and secondary school years (one English course in every trimester of each year). The researcher used purposive sampling in selecting the subjects of the study, in which the results of the preliminary test were used to fulfill the sampling mission. Selected students, based on their performance in the preliminary test, were deemed to be more skilled in L2 reading comprehension and have a larger vocabulary size in comparison to the rest of participants. The results of the preliminary test were the sole determinant of that selection, no other factors like age or gender were taken into account

Based on the results of the preliminary test, twenty-one (21) students were shortlisted. These students, upon their consent, contributed in filling out a questionnaire and completing a group administered reading comprehension test. The results extracted from the answers of these shortlisted participants were the subject of analysis.

2.5. Data Collection Procedures

The researcher adopted a descriptive case study as a means of identifying the effects of content schema on the performance of EFL learners in L2 reading comprehension activities. More precisely, a preliminary test, a group administered questionnaire, and a reading comprehension test were employed as a tool of fulfilling the aims of this study. Nunan statesd that case study involves the investigation of a phenomenon within its real- life contemporary context or setting (1997, p.76). Whereas to Mackey and Gass argued that "*case studies tend to provide detailed descriptions of specific learners within their learning setting*" (p.171). To this

end, a mixed method (qualitative and quantitave) was opted for whereby a preliminary investigative test, a group administered questionnaire, and a reading comprehension test were employed as tools of fulfilling the aims of this study. Additionally, the triangulation method was used to collect the required data. Triangulation in social research refers to the use of multiple methods and different data sources. In this regard, Mackey and Gass (2005) maintained that "*triangulation involves using multiple research methods and multiple sources of data in order to explore the issues from all feasible perspectives*" (p. 168). The use of different instruments of data gathering and multiple informants helps gaining an understanding of the phenomenon from different angles. Patton (1990) endorsed this view in which he argued that the validity and reliability of data increases through the use of data from different sources.

2.5.1. Preliminary Test

In order to guarantee that participants had homogenous background knowledge, the selected topic for the text in the preliminary test revolved around the book "Pride and Prejudice", which they studied in literature module. The choice fell on literature module specifically because the same teacher taught all three groups of third year LMD English students. Hence, the components of the lesson were identical and students received similar input. The researcher chose to tackle a topic that students have already dealt with for more than once in order to make sure that students have been repetitively exposed to it.

The preliminary test was composed of a text, followed by thirteen (13) polar questions, in addition to a table, which participants were asked to fill in using the words they considered to be challenging while reading the text. Students were instructed to underline the words they faced some difficulties in comprehending when they were reading, then classify these words into unfamiliar words, familiar words with unfamiliar meaning, or familiar words that did not make sense in the context in which they occurred.

2.5.1.1.Text

The text was a critique of the movie "Pride and Prejudice and Zombies", which was inspired from the original book of Jane Austin, "Pride and Prejudice". The text included one familiar aspect (the plot of pride and prejudice), along with an unfamiliar element (the abovementioned movie). The purpose of this cocktail was to explore how students linked their prior knowledge to present textual materials in order to achieve comprehension; and to detect whether participants implemented inferencing by exploiting aspects of the text they were well acquainted with, in determining or guessing the significance of book information. For instance,

most participants confirmed that they had watched at least one movie revolving around zombies, zombies were, hence, a familiar ingredient to these students. Most participants also confirmed that they were familiar with Halloween celebration, which was the second familiar ingredient. To put the inferencing skills of these participants to the test, the researcher included an analogy that the critic drew between "how brains are scooped out" of humans' skull to describe the typical role of zombies in zombie movies, and how pumpkin seeds are scooped out of "the Halloween jack o' lantern". In this analogy, the key word "Halloween", and the verb used to establish this analogy "scooped out", along with "pumpkin seeds" were the cues used to trigger the information that participants have with regard to Halloween. These cues were used to guide the testees towards combining the relevant prior knowledge they had and make inferences to attain the correct description of the "jack o' lantern".

The text was followed by a description of the text to further eliminate any potential ambiguities, and provide an outline for participants to refer to. The overwhelming majority of participants reported to had found this description useful.

2.5.1.2. Questions

The abovementioned text description preceded thirteen (13) dichotomous questions, to which participants were expected to answer with either a "yes" or "no", except for the question: "Can you describe a jack o' lantern?", to which they were required to describe the mentioned object. The thirteen questions included six (6) questions employed to determine how acquainted participants were with the content of the text. Three (3) of which, were asked to identify every participant's familiarity degree with the book "Pride and Prejudice":

- Have you read the original book of Pride and Prejudice?
- Have you read a summary of the book Pride and Prejudice?
- Have you tackled the plot of the book Pride and Prejudice in literature class?

The three remaining questions were posed to gauge participants' level of familiarity with other key components of the text, such as zombies:

- Have you watched the movie of Pride and Prejudice and Zombies?
- Have you ever watched a movie about Zombies?

In addition to the question "Do you have some information about Halloween?", which was used to check if participants had prior knowledge about Halloween. This question, along with

the question “Could you recognize what a pumpkin is?”, were used to verify the reason behind participants’ ability or inability to answer correctly to the following:

- Could you recognize what “Halloween jack o’ lantern” is?

Participants who could successfully recognize the “jack o’ lantern” based on their prior knowledge were selected. Participants who were not familiar with the “jack o’ lantern” but used the information they had with regard to “Halloween” and “pumpkins” as resources for their inferencing mechanism to operate on in an attempt to guess what that object could be, were also selected.

Moreover, questions in the preliminary test were used as a means to delimit between students who had a general idea on the book and those who had repetitive contact with the plot and components of the book, through the questions:

- Have you dealt with the book “Pride and Prejudice”, or the plot of the book “Pride and Prejudice” more than once, either during literature class or independently?
- Have you dealt with the book “Pride and Prejudice”, or the plot of the book “Pride and Prejudice” more than two times, either during literature class or independently?

The above questions were asked to determine if participants’ knowledge of the book “Pride and Prejudice” stemmed from consistent exposure to the book and its plot, or from mere familiarity with the book and its characteristics (these participants are not aware of the book’s particularities).

2.5.1.3. Table

The very first instruction, which fell before the dichotomous questions, enjoined participants to underline the words they considered to be difficult as they were reading. Participants were also reminded by the researcher prior to engaging in completing the preliminary test, to underline words they could not comprehend. Participants were then asked to place those words into one of the following three columns in the table:

- The word is unfamiliar/ I have never seen it before,
- The word is unfamiliar but I could guess the meaning based on my knowledge of the topic, or;
- The word is familiar but I could not guess what the writer is trying to say because I do not know much about the topic.

This classification was a used to identify, respectively;

- Participants with larger vocabulary size,
- Participants who are capable of amending lexical deficiencies by drawing inferences, and;
- Participants who have a decent vocabulary size that is not semantically flexible: they memorize the denotative meaning of new words and are often times incapable of taking that meaning out of its denotative mold.

This table was also used to determine the words that were signaled as difficult by the majority of participants. Words that were reported as unfamiliar or unintelligible by multiple students including the shortlisted ones, were not used in the follow-up tests in order to ensure maximum comprehension of the textual materials used in testing. The following table elaborates more on how data extracted from this activity was used in the shortlisting procedure;

The word is unfamiliar/ I have never seen it before	**The word is unfamiliar but I could guess the meaning based on my knowledge of the topic**	**The word is familiar but I could not guess what the writer is trying to say because I do not know much about the topic**
Participants who pulled more than one word under this column were not shortlisted. Advantage was granted to participants with larger vocabulary size. Exception was made for those who placed under this column words that were commonly difficult among participants, such as the word "apocalypse". Participants who found beginner-level vocabulary	Participants who classified the words they found difficult under this column, were given privilege because they are familiar with the topic under concern. This gave them an edge over other participants, as questions in the upcoming questionnaire revolved around a key aspect of this topic, the book "Pride and Prejudice". These participants are also capable of drawing	Participants who copied words into this column were not selected. As they did not have the skill of harnessing familiar aspects in the text to attempt making inferences about unfamiliar elements.

like "pumpkin" difficult, were not shortlisted.	inferences based on their schematic content knowledge (the topics they are well acquainted with), and the text components in order to bridge linguistic gaps.	

Table 1: The procedure of shortlisting using the table of vocabulary

The researcher used the data obtained from the preliminary test in determining the participants who were to partake in the subsequent questionnaire and reading comprehension test. After conducting a review and evaluation of the answers collects, participants who met the criteria sought after by the researcher were requested to take on the follow up testing. The shortlisted participants, who comprised the sample, were requested to show up for the questionnaire upon expressing their approval to continue further into the testing procedure. Members of the sample were considered to have a large vocabulary size, reliable inferencing skills, and sufficient knowledge on the book "Pride and Prejudice" relative to the non-selected participants.

The basis upon which vocabulary size, inferencing, and relevant content knowledge were stressed is explained in the following diagram:

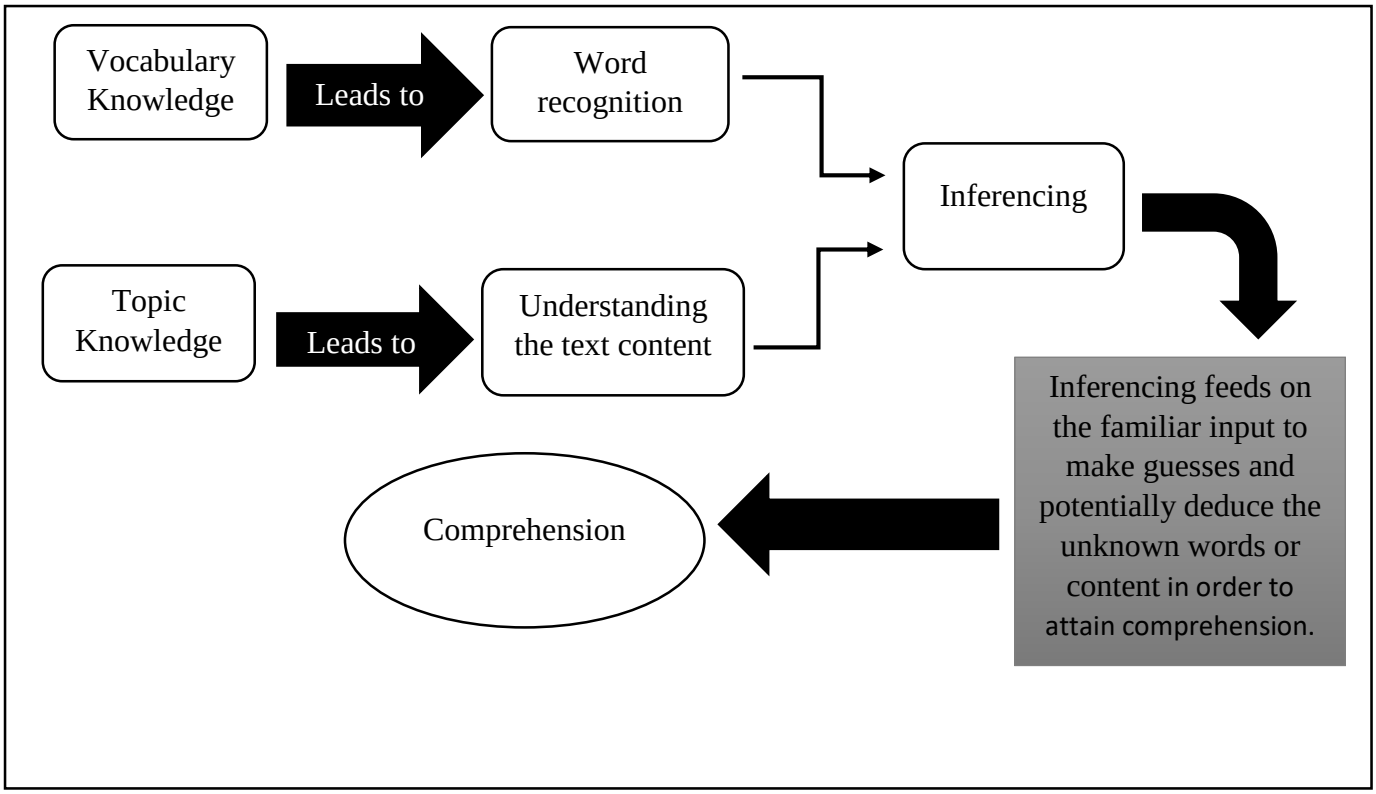


Figure 1: The correlation between vocabulary knowledge, topic knowledge and Inferencing

Therefore, the selected participants are expected to achieve comprehension in order to enable the researcher from navigating through their content schemata without major distractions.

2.5.2. Questionnaire

A Questionnaire is an efficient instrument for gathering data on a large scale in a timely manner. It comes in written form and consists of a number of either open-ended or close-ended questions. Brown (2001) held that "*A questionnaire is any written instrument that presents participants with a series of questions or statements to which they should react either by selecting from existing possibilities or writing out their answers*" (p.111).

The questionnaire used in the present investigation was made up of five (5) personal questions in addition to seven (7) core questions. Personal questions were placed at the initial part of the questionnaire, and were posed to identify participants' average time of exposure to

English language, in order to explore the underlying forte of these participants (either their knowledge of language or knowledge of topic, or both). Participants were asked to tick either the "yes" box or "no" box as an answer to these questions. On the other hand, core questions composed the second part of the questionnaire, and were asked to verify the knowledge of participants about the book "Pride and Prejudice". Questions ranged from general like "What literary movement does the book "Pride and Prejudice" belong to?", to fairly specific such as "How many siblings did the female protagonist, Elizabeth, have?", to extremely specific similar to "How was the father of Elizabeth, Mr. Bennet, described in the book?". These questions were also employed to showcase the difference between participants who had actually read the book and those who consulted the summary only. For instance, the question "What is the relationship between the statement "It is a truth universally acknowledged", and the book "Pride and Prejudice" by Jane Austin?" was a measure to distinguish between participants who read the book and enjoyed a multiple-times exposure to the book and its plot through literature class; and the subjects who merely read the summary of the plot, or spent less time dealing with the book and its components. Questions in the second part of the questionnaire were multiple choices questions. Students were consistently provided with one correct answer, two incorrect ones, besides the two options: "I do not know because I have not read the book" and "I do not know because I was not present or attentive during literature class when this book was tackled". This had been maintained throughout all core questions except for the last one. In the latter, students were asked "What literary movement does the book "Pride and Prejudice" belong to?", and given one correct answer, three incorrect ones, along with the option: "I do not know because I was not present or attentive during literature class when this book was tackled", because reading the book was not enough for readers to determine the answer to this question. Participants were required to tick the answer that best described their knowledge of the book "Pride and Prejudice". Their answers were taken as a tool to discern how topic familiarity differ from having a well-established content schematic knowledge, if they differ at all.

2.5.3. Reading Comprehension Test

Reading comprehension can be tested in a variety of ways. According to Heaton (1991), "there are numerous ways of testing reading comprehension, ranging from multiple-choice items to open-ended questions (i.e. questions which require students to write an answer in a sentence of their own)" (p.107). In this study we have pulled together a cloze activity, a matching activity, and open-ended questions activities. Participants were asked to complete the test at their own pace.

2.5.3.1. Activity One

This activity was destined to stimulate the schematic knowledge that participants had in relations to the sociocultural reality of English language in their own context. Participants have received, over an extensive period of time, the key notions used in the reading passage during sociolinguistic course. In this activity, the testees were required to read the short text and answer the questions below. The questions did not revolve around the short text, per se, but rather around the key notions tackled in that text.

The text used in this activity was cued to activate the concepts under concern without including any explicit explanation of these key concepts. The vocabulary and content of the short text were not demanding as they were mainly intended to conjure up the prior knowledge of participants. The short text was followed by four (4) questions, in which participants were demanded to explain the followings: “lingua franca”, “mother tongue”, “bilingualism”, and “multilingualism” using their own verbiage.

The text centered on learning ESL in particular in order to help targeting participants’ prior experiences with learning English in a non-English speaking country. The reason being, is to gradually activate the relevant schematic content knowledge of participants in order to make it, incrementally, ready for access in the upcoming activities.

2.5.3.2. Activity Two

2.5.3.2.1. Cloze Procedure

In cloze tests, testees were expected to fill in the missing words. Following the cloze procedure, tests are constructed mechanically by test writers and deleted words are omitted systematically (Heaton, 1991, p. 131). Meaning that the number of lexical items between every vacant spot is equal. This activity was designed by the researcher to fulfill the objectives of the testing process. Therefore, the text designed for this activity maintained the theme of learning English, to further stimulate the appropriate schematic content knowledge of participants and allow for an easy access of the relevant knowledge storage. Participants were asked to fill in four (4) gaps in the text to the best of their knowledge. Three (3) out of these omitted words had direct link with the domain of EFL/ ESL instruction and learning. However, guessing what these words were without having pertinent experience or possessing the relevant prior knowledge, was quite plausible. The researcher used these words to investigate how individuals with average to good inferencing skills would perform under the absence of a content schema,

and if linguistic intelligibility and inferencing are capable of compromising for the lack of an appropriate content schema. The fourth missing word, “mission”, was not compatible with the context in which it was inserted; the text was cued to stimulate schematic knowledge that had no explicit rapport with the movie “Mission Impossible”. This was a means to examine the attitude of participants towards familiar words that are irrelevant to the activated schema.

This text, was designed to contribute to the activation process. the aim of this process is to trigger the experiences that participants had with learning EFL.

2.5.3.2.2. Matching Exercise

In this exercise, participants were expected to match words with their corresponding definitions or explanations. Participants were provided with six (6) words lined up vertically on the left side of the test paper. Testees were asked to connect every word to its corresponding definition. There were six (6) definitions, randomly arranged into a line-up; each definition stood for one of the given words. The latter encompassed three key acronyms from the text in the cloze test: EFL, ESL, and L2, in addition to three key terms taken from a lesson they had dealt with as part of sociolinguistics module: layman, behaviorism, and sociolinguistics. This test was responsible for measuring participants’ familiarity with the key words in the text, so as to enable the researcher to detect the reasons behind participants’ success or failure to fill in the vacant spots: to check if participants’ inability to complete this activity was caused by the absence of an appropriate content schema or due to problems at the level of text comprehension. Furthermore, this activity aimed to enhance the activated schemata and stimulate more relevant schematic content knowledge to the field of ESL/ EFL in order to facilitate the accessing process in the subsequent activity.

2.5.3.3. Activity Three: Open-ended Questions

The test was concluded with this activity, which fed on the schematic knowledge targeted and activated by the precedent activities. The latter worked towards stimulating the required schematic content knowledge, if present, as well as guiding the activation process towards the intended direction in order to avoid tapping on irrelevant schemata from the targeted ones. This activity consisted of three statements, each statement represented a different perspective on the possibility of learning ESL/ EFL in a non-native milieu:

- Learning English in a non-English speaking country is difficult.
- Learning English in a non-English speaking country has become easier due to technology.

- Developing a native-like English language proficiency as a non-native speaker in a non-English speaking country has become easier with the emergence of networking apps.

Participants were instructed to declare whether they agree or disagree with the suggested perspectives, and then expand on the stance they had chosen. This activity was a tool to observe the way participants approached the question in this activity: to observe if participants relied on their background knowledge and previous experiences in justifying their positions from the suggested statements.

2.6. Data Analysis Procedures

The data garnered from the preliminary test, questionnaire, and reading comprehension test, were analyzed using a couple of research instruments. The researcher used Statistical Package for the Social Sciences (SPSS) software in analyzing the quantitative type of data, whereas thematic analysis (TA) was adopted to parse the qualitative data obtained through open ended questions.

2.6.1. Quantitative Analysis

2.6.1.1. Statistical Package for the Social Sciences (SPSS)

The researcher approached the analysis of quantitative data from a statistical angel in order to provide a numerical representation of the gathered data. To achieve this, a statistical analysis software baptized the Statistical Package for the Social Sciences (SPSS) (2012) was employed to analyze the outputs of the preliminary test, questionnaire, along with the cloze test and matching exercise from activity two in the reading comprehension test.

SPSS is a package developed for handling and performing statistical analysis on data in the area of social sciences. It was originally developed for the purpose of carrying out statistical analysis and has grown into "*a powerful, user-friendly software package for the manipulation and statistical analysis of data*" (Landau & Evritt, 2004, p.1). We selected the SPSS to analyze the collected quantitative data for it is an accurate and credible instrument for managing, analyzing, and presenting data. In the present study, the researcher made use of the SPSS to conduct a descriptive statistical analysis on the data extracted from the preliminary test, questionnaire, and activity two in the reading comprehension test. The gathered data was analyzed statistically in terms of frequencies and percentages;

In the preliminary test, the answers of participants to dichotomous questions were assigned a numerical value and then frequencies of each value were tracked to discern the level of

participants' familiarity with the book "Pride and Prejudice". On the other hand, the data pulled out from the table in the preliminary test, was analyzed in terms of the number of words placed into each column to justify the vocabulary-size-based selection process.

As to the questionnaire, the answers of participants to personal questions in the first section were categorized depending into a "yes", which was assigned the number 1; and a "No" category, which was assigned the number 2. The frequencies and percentages of each category were described using the SPSS, in order to navigate participants' level of familiarity with the language itself. Whereas in the second section, the researcher measured the number of times each of the provided options were selected by participants as an attempt to distinguish between content schemata that are developed as a result of repetitive contact with the concerned textual material, and topic familiarity (the way it is perceived in this research). Each of the provided options was attributed a number based on its order in the list of choices. The frequencies and percentages of each selected option were quantified using the SPSS and finally represented in pie charts.

The data obtained from the cloze test in the reading comprehension test was used to investigate the link between wrong selection of words to fill in the empty spots and the absence of appropriate content schemata. Participants' answers were labeled either as correct answer, wrong attempt for incorrect answers, or vacant for the gaps that were not filled in at all. The frequencies and percentages of each of the previously listed labels were processed using the SPSS. Furthermore, the matching exercise in the reading comprehension test was described in terms of the hit and misses; how many times acronyms and words were connected to their appropriate peers. The performance of participants in this exercise was assessed in terms of correctly matched words/acronyms for correct answers, ill-matched words/ acronyms for incorrect answers, and not-matched for the words/ acronyms that were not connected to any of the given choices. This exercise was interested in participants' ability to rely on their prior knowledge to correctly match words/ acronyms with their definitions despite the fact that those words/ acronyms were not explained at any point in testing. For that reason, the researcher counted the frequencies of every correct, incorrect, or not-matched word/ acronym using the SPSS.

2.6.2. Qualitative Analysis

2.6.2.1. Thematic Analysis (TA)

Thematic analysis (TA) is a method of analyzing qualitative data on a large scale. TA was defined by Braun and Clarke (2012) as "*a method for systematically identifying, organizing, and offering insight into, patterns of meaning (themes) across a dataset*" (p.1). Therefore, TA is concerned with the common and recurrent meaning units and patterns rather single data items. Additionally, "*thematic analysis is used to analyze classifications and present themes (patterns) that relate to the data*" (Alhojailan, 2012, p. 40). While using TA, researchers are supposed to identify themes based on the collective scheme of data, and proceed with an interpretation of the grouped data. Thematic analysis is a highly efficient method for interpreting data, for it "*allows the researcher to associate an analysis of the frequency of a theme with one of the whole content*" (Alhojailan, 2012, p. 40). This will add to the accuracy and validity of the analysis operation. Moreover, TA is an overarching method that identifies several dimension of the data under analysis. In this perspective, Namey et al. (2008) emphasized that "*Thematic Moves beyond counting explicit words or phrases and focuses on identifying and describing both implicit and explicit ideas"* (p.138). In this research, we used thematic analysis in analyzing the unstructured data collected from activity one and three in the reading comprehension test.

2.6.2.1.1. Activity one

In activity one, the researcher was interested in the influence of the related schematic content knowledge of participants on their answers to the posed questions. Answers were not evaluated based on how accurate they are in the eyes of sociolinguistics, but based on the most recurrent answer. The meaning of the latter was extracted in isolation from the wording in which it was conveyed by different participants, and then used as a measure against which participants' performance was assessed. The repetitive answering patterns were considered as a representation of the input participants received in class, while the output variations (differences at the level of participants' verbiage in this context), were seen as a manifestation of their own comprehension, which contributed significantly in the formation of the corresponding schemata.

The collected data was subjected to a thematic analysis (TA) during which themes were created in correspondence with participants' answers. This was an unbiased process in which themes were not pre-determined by the researcher but were created to reflect the meanings carried in every answer. Themes were not tailored to common answers only; novel themes were created when answers conveyed a meaning that did not fit under any of the existing themes. Subsequently, meaning units were encoded into their corresponding themes. The later were,

then, assigned codes in order to facilitate the process of categorizing and quantifying the frequencies and percentages of the recognized themes using the SPSS. Themes were categorized into one of the followings;

- **Present schema:** When the answer under analysis conveyed an identical meaning to that transmitted by the majority of participants.
- **Absent schema:** When there is no answer, or the answer under analysis took the form of an assumption or was irrelevant. For example, participant answering the question "What it a lingua franca?" with: "A term that refers to the French language?"
- **Incomplete or flawed schema:** When the answer under analysis does not convey a fully intelligible meaning or when it partially complies with the common answering scheme. For example, participant answering the question "What it a lingua franca?" with: "It is a non-native language", or participant answering the question "What does bilingual/ bilingualism means" with "The ability to speak two languages besides the mother tongue".
- **Activation failure of appropriate schema:** When the answer under analysis corresponded to a distinct concept in sociolinguistics (The concepts which participants were asked to define were all tackled in sociolinguistics module). For example, participant answering the question "What it a lingua franca?" with: A mixture of languages used in small communities that don't speak the same language"

The table below contains some examples on how the overall process was conducted;

Categories	**Themes**	**Code**
Present schema	Answers along the line of: A medium of communication between with different mother tongues.	Answers which fitted into category were labeled as "1".
Absent schema	No answer at all.	Answers which fitted into this category were labeled as "2".
Incomplete/ flawed schema	The meaning conveyed was either unintelligible or incomplete.	Answers which fitted into this category were labeled as "3".

Activation Failure	Definition of a different concept in sociolinguistics.	Answers which fitted into this category were labeled as “4”.

Table 2: The thematic analysis of activity one

2.6.2.1.2. Activity Three

The previous activities worked towards stimulating the appropriate schematic content knowledge, in order to set the ground for a smooth access of the activated schemata at this point in testing. As part of this activity, participants were supplied with three (3) opinions on learning EFL. Participants were required to express whether they agreed or disagreed with each of the given perspectives and then justify their stance. The answering fashion of participants was examined to track the level of interference of participants’ prior knowledge and previous experiences with their interaction with textual materials. We started by counting the number of participants who opposed and the number of those who endorsed each of the displayed tokens. This did not have any influence on the results of the study but was used to identify the approach that participants followed in justifying their standpoint.

The researcher analyzed participants’ answers to each question at a time. This process was completely unbiased and did not intend to assess how valid the answers of every participant were. Instead, we were concerned with the manner in which answers were conveyed. We also overlooked any minor or major mistakes of any sort. As a first step, the researcher scrutinized through the responses of every participant to each question individually, then created themes that described every response. Themes were inclusive and catered to the participants’ answers. Themes were subsequently coded using letters from the alphabet to render the quantifying process feasible. The frequencies and percentages of themes were described using the SPSS.

Based on the submitted responses of participants, the following themes were created;

Theme	Code
General answers: When participants provided generic arguments. These participants used expressions like: “there are”. <u>For example:</u>	A

Due to technology, there are highly valuable methods to acquire a language. There are even some non-native speakers who are better than native speakers in terms of grammar and rules.	
Described personal experience: When participants fully relied on a previous experience to justify their position. These participants used personal pronouns and expressions like: "me personally". For example: True, me personally I used to practice English language on a daily basis, but some people started to bully me thinking I was being pretentious or trying to flaunt. So I started using it less, and it caused my level to decrease a little bit.	B
Used personal experience to support one's argument: When participants provided an argument and backed it up with a personal experience. For example: I disagree. Learning English is not difficult in our time, given the fact that English is the international language, hence, it is familiar to everybody. I could personally learn English mostly via internet and video games before I reached middle school.	C
Observation derived from the relevant content schema: When participants based their arguments on their schematic knowledge, but the source of information is unclear. For example: English has become easier to learn with the emergence of technology, you can use online courses, watch content in English in order to enhance your listening for example. The teste had information on the modern strategies used in learning English, but it is not clear whether this knowledge was conceived as a reaction to a personal experience or else, as most people in the contemporary times are familiar with the internet and other different technologies.	D
Relied on background knowledge: When participants fully relied on their background knowledge to justify their stand point. For example: True, globalization is the major factor that contributed to spreading the use of English, and because of that, learning English has become the easiest in comparison to other languages, although its syntactic system is not that easy, especially if we compare it to other languages.	E

Combined background knowledge with personal experience: Participants who drew on both, their background knowledge and personal experience in constructing their arguments. For example: Actually, learning English in a non-English speaking country isn't really difficult, I believe that it depends on the motive, learning pace, and learning style of learners. I could learn English through online chatting in a short time. It's all about learner's capacity and ability to process a new language, not the place.	F

Table 3: The thematic analysis of activity three

Conclusion

On the whole, this chapter addressed the objectives of this research and provided the roadmap drawn by the researcher towards their fulfillment. We commenced this chapter by displaying the statement of the problem together with the sub-questions that this study intends to inform. In the section that followed, we explained the design of this research and provided a bird's view on its components. Subsequently, we touched upon the target population of this research and expounded the underlying reasons to our choice. We, then, introduced the chosen sample for this investigation and tackled the strategies that we adopted in picking out this sample. In this respect, we expounded the implementation of the preliminary test and how it was used to shortlist the subjects of this study. Additionally, we dissected the procedures used by the researcher to collect the necessary data for satiating the aims of this research, in which we displayed the objectives behind using the preliminary test, questionnaire, and reading comprehension test. Moreover, we discussed the research instruments that we have employed to obtain both, qualitative and qualitative data, starting from the questionnaire and moving to the reading comprehension test. Eventually, we plunged into the data analysis procedures that we opted for in analyzing the collected data. In this regard, we explained the procedure of analyzing qualitative data using Statistical Package for the Social Sciences (SPSS), in addition to the thematic analysis which was used in analyzing the unstructured data gathered by means of open-ended questions.

CHAPTER THREE: DATA ANALYSIS

Introduction

In order to satiate the aims of this study, the researcher used a number of instruments to have access to the requisite data. In the previous chapter, we minutely described how the data collection process was executed. However, the gathered data would have remained as mere digits unless it was voiced and given a value. Along this view, this chapter is an articulation of the data reflected through the questionnaire and the reading comprehension test. The results obtained through dichotomous questions and the table in the preliminary test were exempted from being introduced in this chapter for they were solely used as a tool to filter out participants with limited vocabulary and weak inferencing skills in comparison to the remainder of the testees. Instead, these results were attached to this thesis under the appendices heading. On the other hand, the personal and core questions in the questionnaire, in addition to the cloze test and matching exercise in the reading comprehension test, were analyzed using the Statistical Package for the Social Sciences (SPSS) and represented using pie charts; whereas, the open-ended questions in the reading comprehension test were broken down using thematic analysis. The latter was the process by which themes were created to represent the state of the content schema of every reader, in which the answering fashion of participants were taken as an indicator of a present content schema, absent content schema, incomplete or flawed content schema, or a sign of pitfalls at the level of activation. The created themes were coded using letters from the alphabet then quantified, whereby the frequencies and percentages of each theme were processed using the SPSS. This process was exhaustively tackled in the precedent chapter of "*Research Methodology*" and touched up on in this chapter.

3.1. Results of the Questionnaire

The questionnaire ramped into a couple of sections. The initial section was composed of five personal questions whereas the subsequent section consisted of seven core question. Personal questions were responsible for examining participants' level of exposure to the language (English) itself. Whereas, the core questions assessed the role of schematic content knowledge on the reading comprehension skills of participants.

3.1.1. Section One: Personal Questions

Question 1: Have you ever taken any extra courses taught in English?

This question helps identifying the extent of participants' exposure to English language. In other words, the answers of the testees to this question shows if they enjoy exposure to the target language outside of the classroom.

Have you ever taken any extra courses taught in English?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	25,0	25,0	25,0
	No	15	75,0	75,0	100,0
	Total	20	100,0	100,0	

Table 4: Participants' exposure to English outside of the classroom – Q1

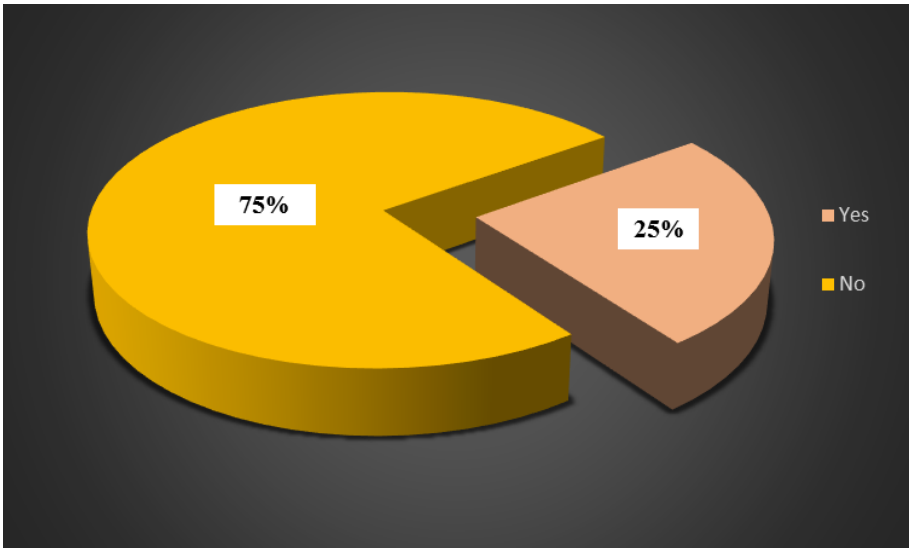


Figure 2: Participants' exposure to English outside of the classroom – Q1

The table shows that the majority of participants, more accurately seventy-five percent (75%) of participants reported that they have never taken any extra courses in English. It is worth noting that this question was not referring to EFL courses exclusively but courses in any area of study where English was the main language of instruction. Participants had been made cognate of the intention of each question before they were given the signal to being completing the questionnaire.

Question 2: Are you taking any extra courses taught in English?

This question reveals whether the linguistic competence of participants received deliberate adjustments prior to majoring in English at university. This question helps identifying the amount of time during which participants had direct exposure to English language.

Are you taking any extra courses taught in English					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	10,0	10,0	10,0
	No	18	90,0	90,0	100,0
	Total	20	100,0	100,0	

Table 5: Participants' exposure to English outside of the classroom – Q2

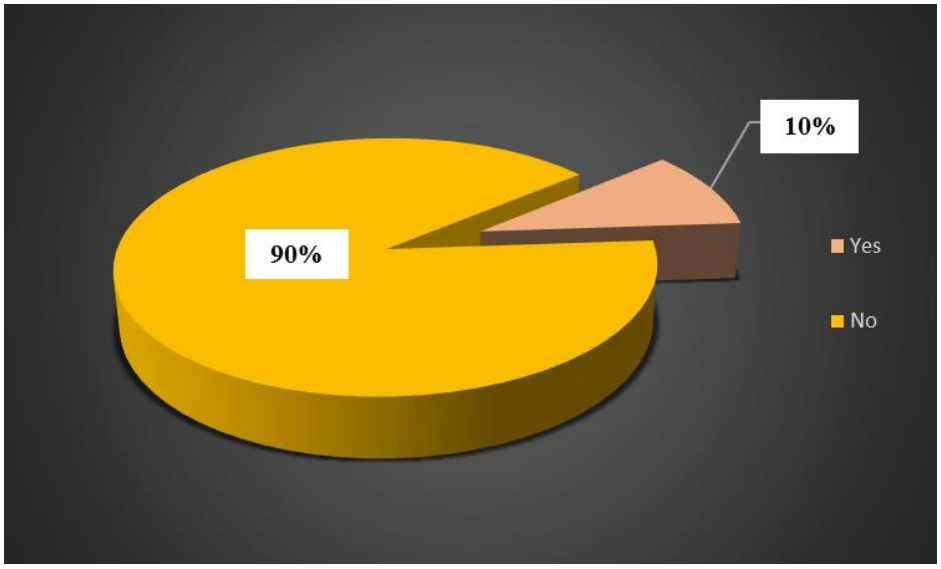


Figure 3: Participants' exposure to English outside of the classroom – Q2

The subjects of this study are English language students in their final undergraduate year. The vast majority of respondents denied being enrolled in courses taught in English beyond the walls of university: this included courses delivered in English but did not necessarily target teaching English. While a wee percentage of ten percent (10%) represented participants who responded of "Yes" to this question.

Question 3: Do you often read (article, blogs, newspapers, …etc.) in English?

This question helps figuring out if participants engage in reading comprehension tasks apart from their academic assignments and activities.

Do you often read (article, blogs, newspapers, …etc.) in English					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	85,0	85,0	85,0
	No	3	15,0	15,0	100,0
	Total	20	100,0	100,0	

Table 6: Participants' exposure to English through reading

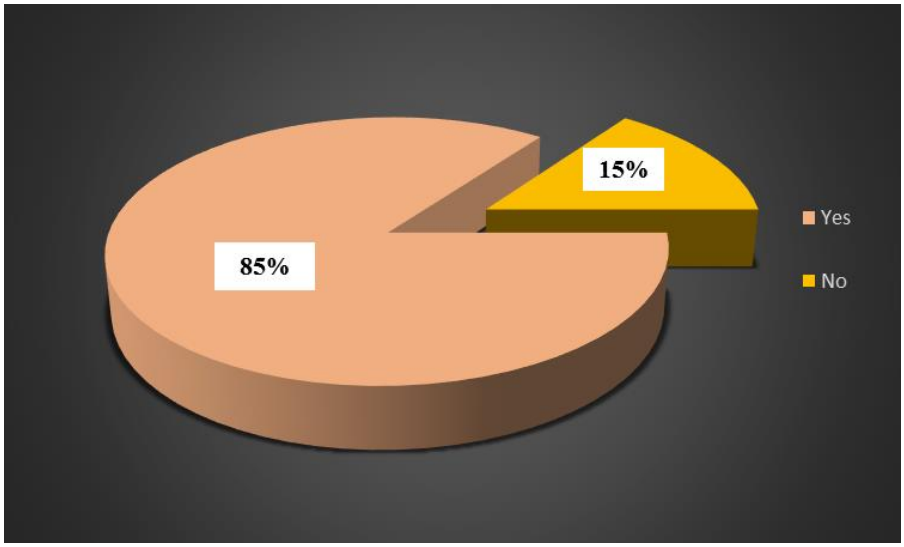


Figure 4: Participants' exposure to English through reading

Most participants answered with "yes" to this question, indicating that most respondents are frequently exposed to different kinds of written textual materials produced in the English language. Although eighty-five percent (85%) of participants reported that they do read textual materials written in English, fifteen percent (15%) of them reported that they do not, as is reflected through the table and Figure above.

Question 4: Do you often listen to content (podcasts, music, audio books …etc.) produced in English?

This question aids in identifying if participants are used to receiving an input in English. Since these research view comprehension as a general mechanism, frequent exposure to English through listening is believed to contribute towards fostering comprehension of L2 incoming cues.

Do you often listen to content (podcasts, music, audio books …etc.) produced in English					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	95,0	95,0	95,0
	No	1	5,0	5,0	100,0
	Total	20	100,0	100,0	

Table 7: Participants' exposure to English through listening

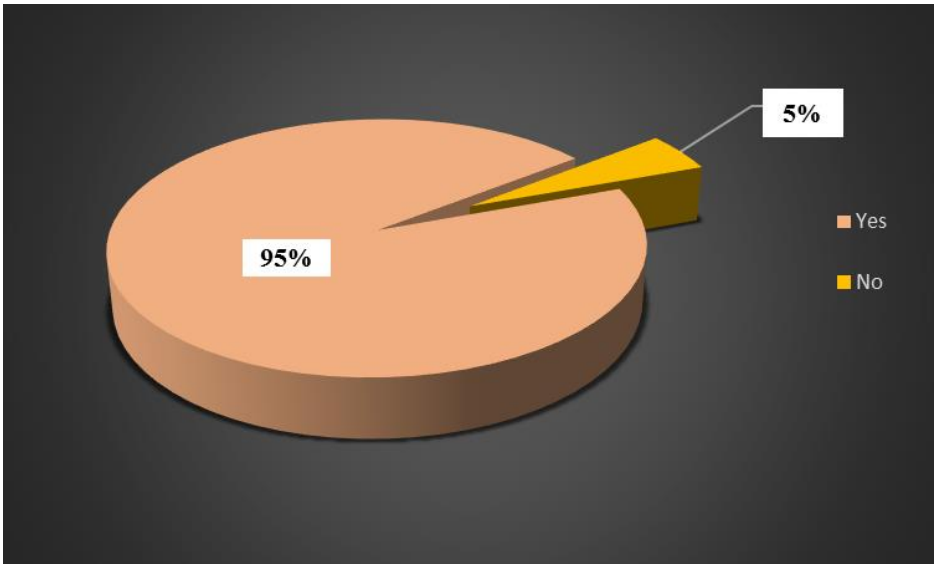


Figure 5: Participants' exposure to English through listening

The table along with the chart above, demonstrate that ninety-five (95%) percent of participants are frequently exposed to audio materials in the English language. On the other hand, a small portion of participants which is represented in the remaining five percent (5%), declined listening to podcasts, music, or audio books produced in English.

Question 5: Do you often watch content (videos, movies, series, … etc.) produced in English?

This question assists in identifying if participants if participants are used to receiving an input in the English language.

Do you often watch content (videos, movies, series, … etc.) produced in English					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	95,0	95,0	95,0
	No	1	5,0	5,0	100,0
	Total	20	100,0	100,0	

Table 8: Participants' exposure to English language through watching content produced in English

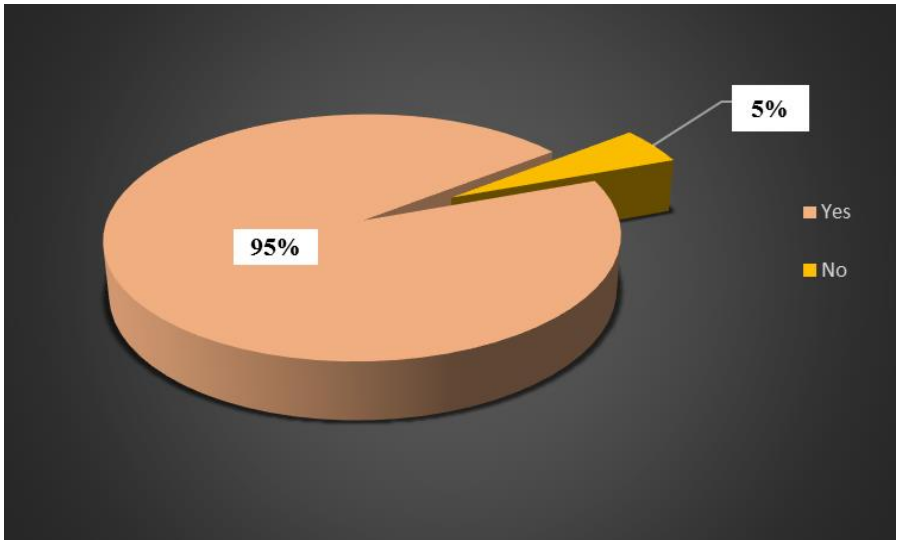


Figure 6: Participants' exposure to English through watching content produced in English

This question reveals the number of participants who do often watch movies, series, or any other content produced in English language; in proportion to the amount of participants who declared that they do not. A solid ninety-five percent (95%) of respondents confirmed that they do often watch content catered to English speakers, while five percent (5%) of them chose "No" as an answer.

3.1.2. Section Two: Core Questions

Question 1: What is the relationship between the statement "It is a truth universally acknowledged", and the book "Pride and Prejudice" by Jane Austin?

This question is highly specific, thus, it is geared towards recognizing the influence of the absence of specific schematic content knowledge on the performance of participants in this question.

What is the relationship between the statement "It is a truth universally acknowledged", and the book "Pride and Prejudice" by Jane Austin?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	There is no relationship between the mentioned statement and the book.	4	20,0	20,0	20,0
	Jane Austin started her book "Pride and Prejudice" with the mentioned statement	5	25,0	25,0	45,0
	This statement is often used by the female protagonist of the book, Elizabeth Bennet	1	5,0	5,0	50,0
	I do not know because I have not read the book.	10	50,0	50,0	100,0
	Total	20	100,0	100,0	

Table 9: The influence of the absence of specific content schema on participants' performance

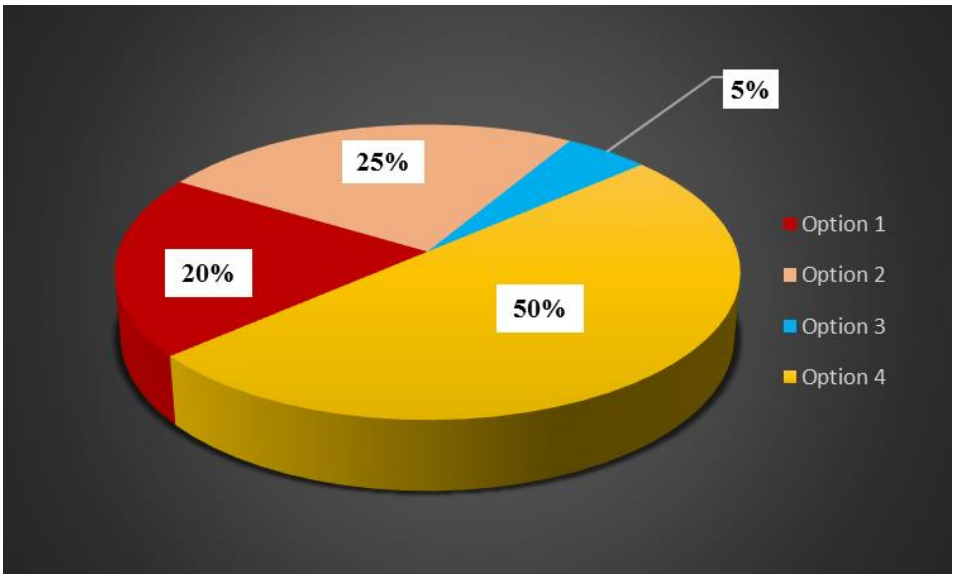


Figure 7: The influence of the absence of specific content schema on participants' performance

The results reveal that twenty-five percent (25%) out of the total number of participants answered correctly by selecting the second option (Jane Austin started her book "Pride and Prejudice" with the mentioned statement). Whereas twenty-percent (20%) of participants answered incorrectly by choosing the first option, and a minority of five percent (5%) opted for the first option, which is also an incorrect answer. A percentage of fifty percent (50%) chose the fourth option declaring that they were unable to pick out the correct answer in the lineup of

options because they did not read the book. While none of the testees selected the last option: I do not know because I was not present or attentive during literature class when this book was tackled.

Question 2: What was the perspective of the female protagonist, Elizabeth Bennet, on marriage?

This question is moderately specific; it could be answered correctly by participants who read the book as well as those who read the summary only. This question is responsible for pointing out the influence of the absence of the appropriate content schema on participants' performance in this question.

What was the perspective of the female protagonist, Elizabeth Bennet, on marriage?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	She had a strong desire to get married.	7	35,0	35,0	35,0
	She did not have a strong desire to get married.	11	55,0	55,0	90,0
	I do not know because I have not read the book.	2	10,0	10,0	100,0
	Total	20	100,0	100,0	

Table 10: The influence of the absence of particular content schema on participants' performance

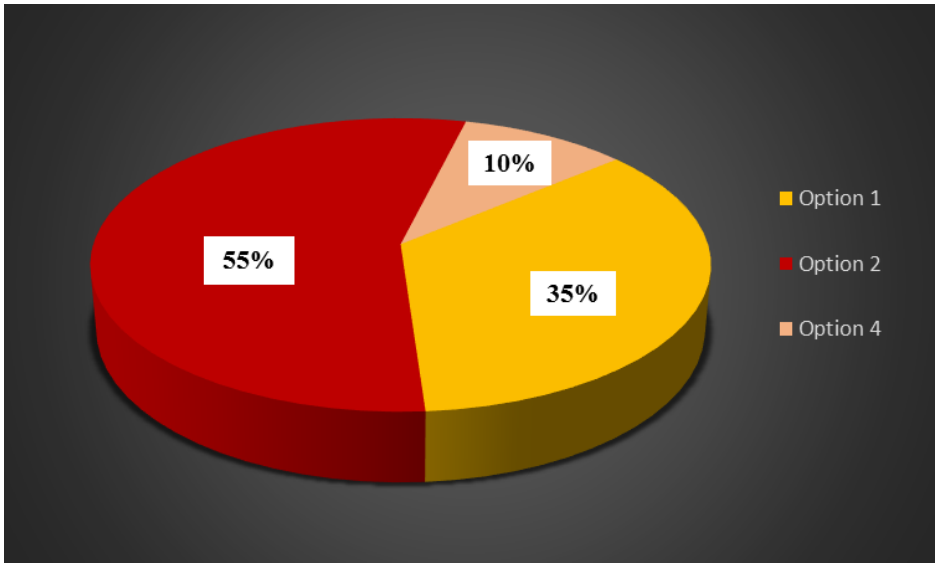


Figure 8: The influence of the absence of particular content schema on participants' performance

The table shows that a little over half of the total number of participants, more precisely fifty-five percent (55%) of participants, chose the second option, which represents the correct answer to this question. Whereas thirsty-five percent (35%) of participants selected the first option, which is a wrong answer. On the other hand, ten percent (10%) of participants declared that they were unable to detect the correct answer to this question for they did not read the book. The third and fifth options were not selected by any participant.

Question 3: How many siblings did the female protagonist, Elizabeth, have?

This question is fairly specific; it sets apart participants who possess the requisite content schema as a result of reading the book or thoroughly tackling the summary, and those who do not.

How many siblings did the female protagonist, Elizabeth, have?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Four sisters.	11	55,0	55,0	55,0
	I do not know because I have not read the book.	8	40,0	40,0	95,0
	I do not know because I was not present or attentive during literature class when this book was tackled.	1	5,0	5,0	100,0
	Total	20	100,0	100,0	

Table 11: The effect of the absence and presence of content schema on participants' performance

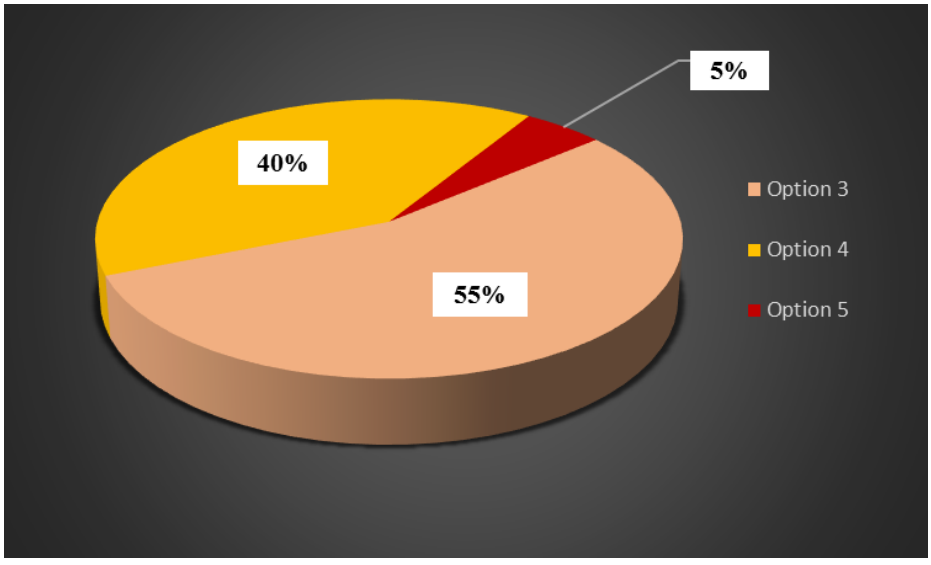


Figure 9: The effect of the absence and presence of content schema on participants' performance

In this question, participants steered towards three out of the five listed. Fifty-five percent (55%) of participants landed on the correct answer (the third option), while the remainder of participants were unable to decide upon the correct answer to this question. In this respect, forty percent (40%) of participants picked the fourth option, which stands for: I do not know because I have not read the book. Whereas five percent (5%) of participants chose the fifth option admitting that their inability to showcase the correct answer stems from being inattentive during literature class when the book of "Pride and Prejudice" was discussed. The first and second option were not selected by any of the participants.

Question 4: How did Elizabeth feel about the male protagonist, Mr. Darcy?

This question revolves around a substantial element in the story of the book under concern. This question aided in revealing the influence of lacking the relevant schematic content knowledge on the performance of participants in this question.

How did Elizabeth feel about the male protagonist, Mr. Darcy?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	She fell in love with him once she saw him.	9	45,0	45,0	45,0
	She hated him at first but fell in love with him after getting to know him.	7	35,0	35,0	80,0
	She never loved him because he was arrogant.	1	5,0	5,0	85,0
	I do not know because I have not read the book.	3	15,0	15,0	100,0
	Total	20	100,0	100,0	

Table 12: The effect of lacking the relevant schematic content knowledge on participants' performance

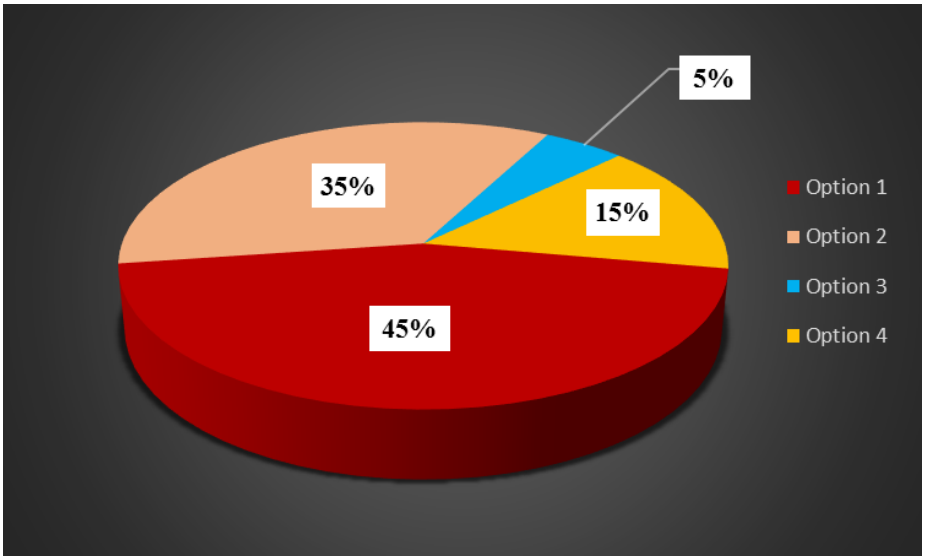


Figure 10: The effect of lacking the relevant schematic content knowledge on participants' performance

The table and the pie chart illustrates that forty-five percent (45%) of participants indicated that Elizabeth fell in love with him once she saw Mr. Darcy, choosing by that the first option, which is not the correct answer. Thirty-five percent (35%) of participants picked out the correct answer listed as the second the option. Alternately, a low percentage of five percent (5%) ticked option three, which is also an incorrect answer. Whilst, fifty percent (15%) of participants admitted that they failed at identifying the correct answer because they did not read the book.

Question 5: How was the mother of Elizabeth, Mrs. Bennet, described in the book?

This question targets a moderately specific detail in the book under concern. The answer to this question was within the reach of both, participants who read the book and those who merely read a summary of the plot. This question helped identifying the impact of the presence of the appropriate content schema on participants' performance in this question.

How was the mother of Elizabeth, Mrs. Bennet, described in the book?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mrs. Bennet was described as an extremely intelligent lady.	5	25,0	25,0	25,0
	Mrs. Bennet was described as a lady who loved gossiping.	9	45,0	45,0	70,0
	Mrs. Bennet was described as a lady who did not talk a lot.	3	15,0	15,0	85,0
	I do not know because I have not read the book.	3	15,0	15,0	100,0
	Total	20	100,0	100,0	

Table 13: The impact of the presence of the appropriate content schema on participants' performance

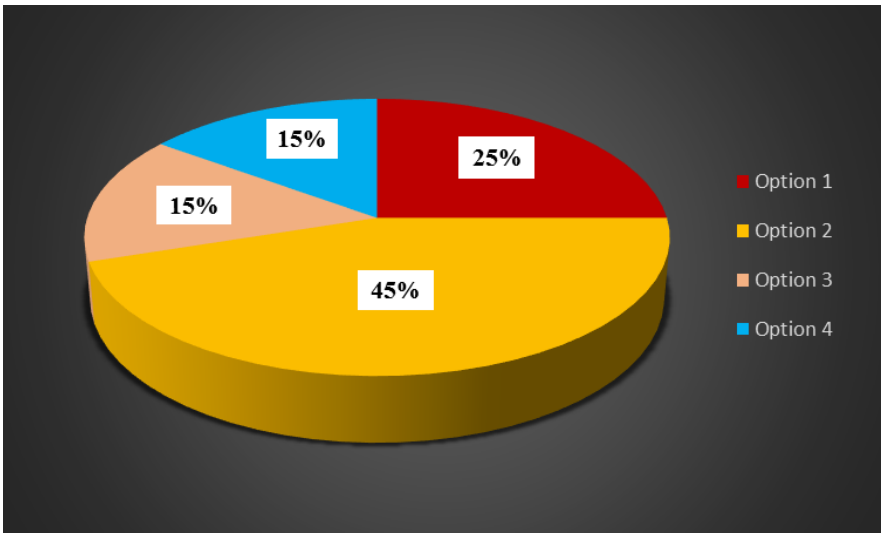


Figure 11: The impact of the presence of the appropriate content schema on participants' performance

The data presented in the table and Figure above, demonstrates that forty percent (40%) of participants opted for the correct option: Option 2. Whereas fifteen percent (15%) of participants admitted that they were unable to identify the correct answer because they did not read the book. On the other hand, a total of forty percent (40%) of participants selected the wrong options.

Question 6: How was the father of Elizabeth, Mr. Bennet, described in the book?

This question targets a moderately specific detail that has its own weight in the plot of the book under concern. This question falls within the reach of participants who read the book as well as those who read the summary of the book only. This question helped identifying the impact of the presence of the appropriate content schema on the performance of participants in this question.

How was the father of Elizabeth, Mr. Bennet, described in the book?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mr. Bennet was described as a man who made sure his daughters marry wealthy men.	3	15,0	15,0	15,0
	Mr. Bennet was described as an intelligent and sarcastic man.	8	40,0	40,0	55,0
	Mr. Bennet was described as a very sociable man who had many friends.	1	5,0	5,0	60,0
	I do not know because I have not read the book.	8	40,0	40,0	100,0
	Total	20	100,0	100,0	

Table 14: The influence of the presence of the appropriate content schema on participants' performance

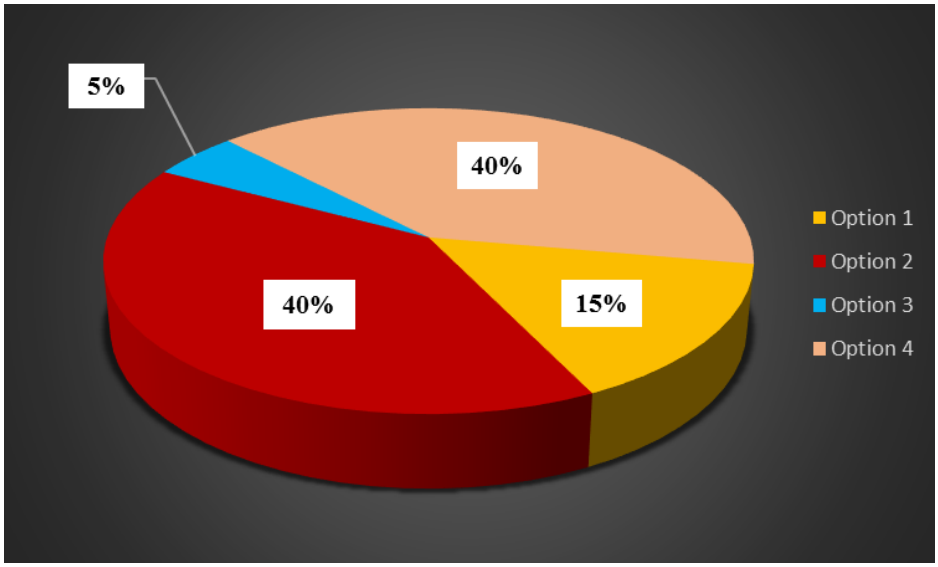


Figure 12: The influence of the presence of the appropriate content schema on participants' performance

The data presented in the table shows that forty percent (40%) of participants selected the correct answer, which is labeled as option 2 in the Figure. Equally, another forty percent (40%) of participants justified their failure to spot the correct answer by selecting the fourth option (option 4), which stands for: I do not know because I have not read the book. Fifteen percent (15%) of the overall number of participants chose option 1, while a percentage as a little as five percent (5%) of participants opted for the third option. The latter and former options are both incorrect.

Question 7: What literary movement does the book "Pride and Prejudice" belong to?

It was very plausible for both, participants who read the book along with those who read the summary of the plot, to answer this question correctly unless they were aware of the precise answer. Hence, the correct answer could only be attained by the participants who possessed the appropriate schema. This question assisted in identifying the effect of the presence of appropriate content schema on the performance of participants in this question.

What literary movement does the book "Pride and Prejudice" belong to					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Romanticism	18	90,0	90,0	90,0
	I do not know because I was not present or attentive during literature class when this book was tackled.	2	10,0	10,0	100,0
	Total	20	100,0	100,0	

Table 15: The effect of the presence of appropriate content schema on participants' performance

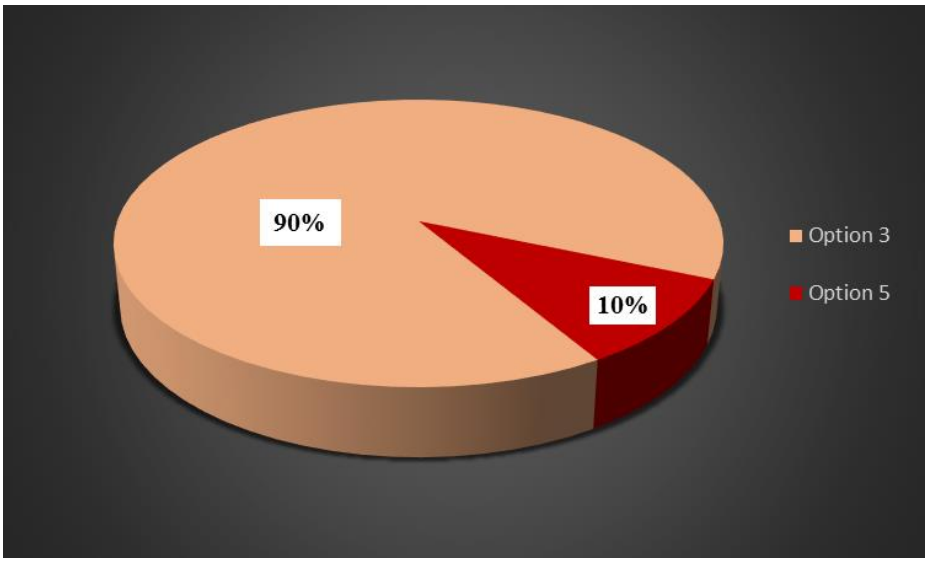


Figure 13: The effect of the presence of appropriate content schema on participants' performance

The data obtained through this questions revealed that participants gravitated towards two options amongst the five listed options. The absolute majority of participants, in other words, ninety percent (30%) of participants selected the third option, which is the correct answer to this question. The remaining ten percent (10%) of participants specified that they were unable to identify the correct answer because they were, either absent or inattentive, during literature

class when the book of "Pride and Prejudice" was tackled. The rest of the given options were overlooked by all participants.

3.2. Results of the Reading Comprehension Test

3.2.1. Activity one: Open-ended Questions

Open-ended questions in activity one were analyzed qualitatively using thematic analysis. The researcher examined answers submitted by the testees and highlighted the repeated meaning patterns. The latter were coded into one of the four themes: Present, absent, incomplete or flawed, and activation failure. These themes describe the state of the schematic content knowledge of respondents based on their fashion of answering each question. Subsequently, the frequencies and percentages of each theme were described using the SPSS. The outcomes of the thematic analysis of activity one are exhibited in this section.

Question 1: Explain what is a lingua franca using your own words?

Explain what is a lingua franca using your own words					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Present	14	70,0	70,0	70,0
	Absent	2	10,0	10,0	80,0
	Incomplete/ flawed	3	15,0	15,0	95,0
	Activation failure	1	5,0	5,0	100,0
	Total	20	100,0	100,0	

Table 16: The influence of content schema on the performance of participants – Q1

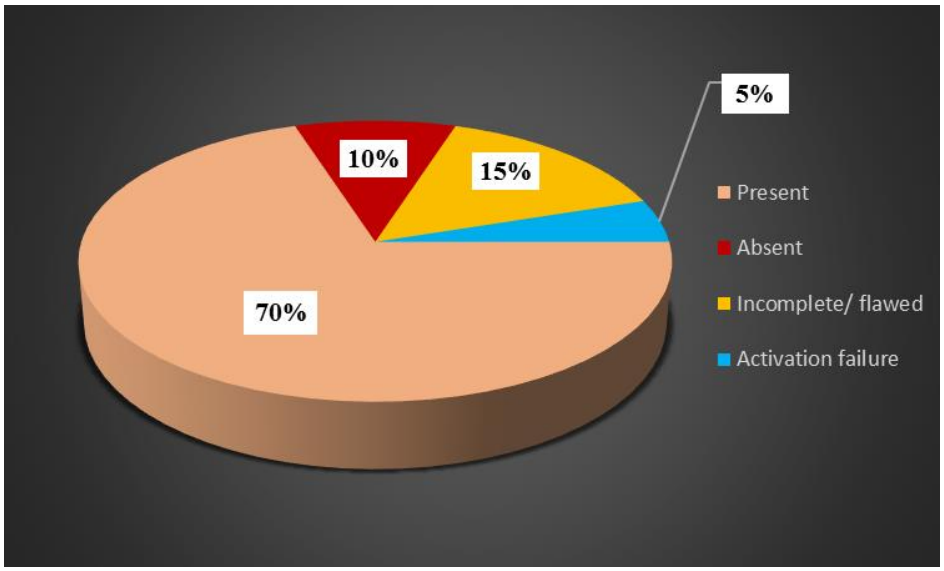


Figure 14: The influence of content schema on the performance of participants – Q1

The unstructured data collected by means of this question was analyzed qualitatively using thematic analysis. Participants' answers to this question fell under one of the four themes displayed in the above table. The vast majority of participants, in other words seventy percent (70%), possess a relevant content schema to the issue under consideration. Whereas the appropriate schematic content knowledge is absent in ten percent (10%) of participants. fifteen percent (15%) of participants had an incomplete schematic content knowledge resulting in an inaccurate answer; whereas the answers of a tiny percentage of five percent (5%) showed that a different schema than the targeted one was activated.

Question 2: What does a mother tongue mean?

What does a mother tongue mean?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Present	17	85,0	85,0	85,0
	Absent	1	5,0	5,0	90,0
	Incomplete/ flawed	2	10,0	10,0	100,0
	Total	20	100,0	100,0	

Table 17: The influence of content schema on the performance of participants – Q2

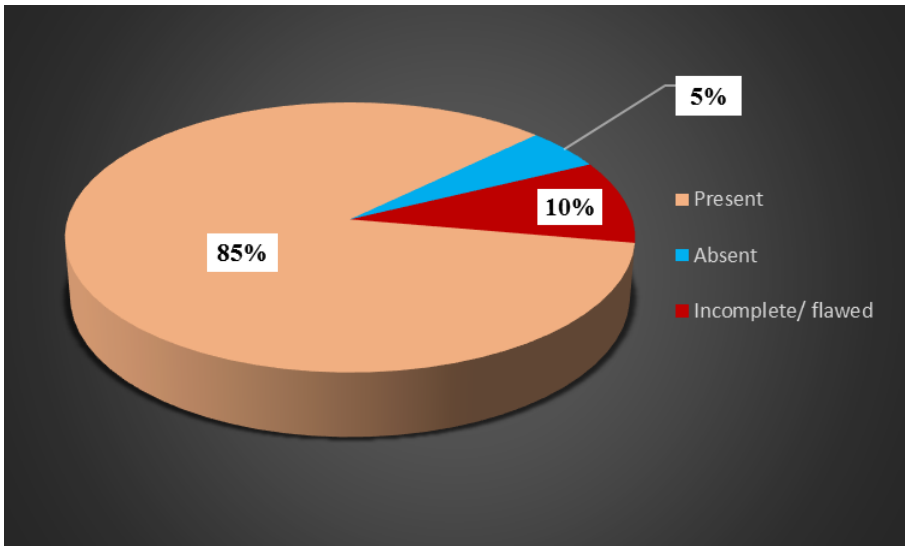


Figure 15: The influence of content schema on the performance of participants – Q2

According to the results displayed in the table above, the answers of participants signaled either, the presence of an appropriate content schemata, the absence of an appropriate content schemata, or the detection of an incomplete or flawed content schemata. In this context, eighty

percent (80%) of participants answered in line with the mainstream answering pattern. The answers of ten percent (10%) of participants revealed that their schematic content knowledge is flawed. On the other hand, five percent (5%) of participants did not possess an adequate content schema.

Question 3: What does bilingual bilingualism mean?

What does bilingualism/ bilingual mean?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Present	17	85,0	85,0	85,0
	Incomplete/ flawed	3	15,0	15,0	100,0
	Total	20	100,0	100,0	

Table 18: The influence of content schema on the performance of participants – Q3

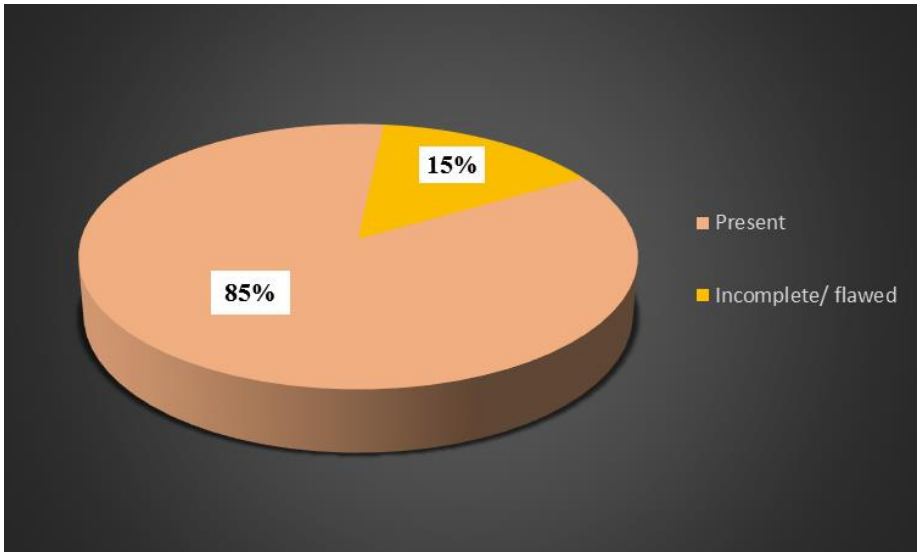


Figure 16: The influence of content schema on the performance of participants – Q3

The meaning derived from participants' answers to this question were an indicator of either, a present or an incomplete schematic content knowledge. The vast majority of participants, more accurately eighty-five percent (85%) of participants possess an appropriate content schema. On the other hand, the answers fifty percent (15%) of participants reflected that the schematic content knowledge they have in relation to bilingualism is incomplete or flawed.

Question 4: What does multilingual/ multilingualism mean?

What does multilingualism/ multilingual mean?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Present	16	80,0	80,0	80,0
	Incomplete/ flawed	4	20,0	20,0	100,0
	Total	20	100,0	100,0	

Table 19: The influence of content schema on the performance of participants – Q4

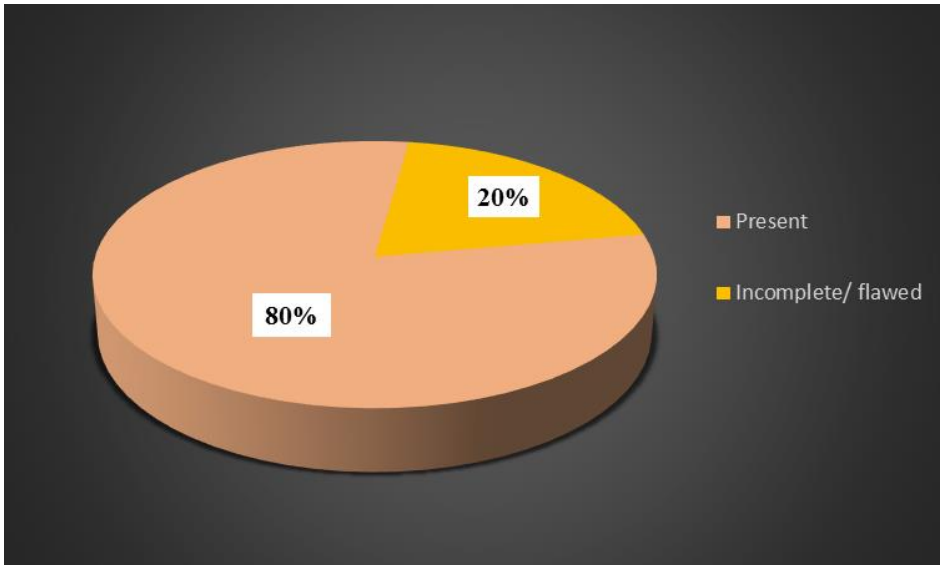


Figure 17: The influence of content schema on the performance of participants – Q4

The meanings transmitted through the answers of participants to this question were categorized into meanings that projects the presence of an appropriate schema, and meanings that were the output of a flawed or incomplete content schema. In this regard, eighty percent (80%) of participants possessed a relevant content schema to multilingualism; whereas twenty percent (20%) of participants had a flawed schematic content knowledge on the issue at hand.

3.2.2. Activity two: Cloze Test

The data displayed bellow represent the number of times each gap was filled in correctly, left vacant, or filled in using an incorrect word.

The first gap:

Gap 1					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correct answer	8	40,0	40,0	40,0
	wrong attempt	4	20,0	20,0	60,0
	Vacant	8	40,0	40,0	100,0
	Total	20	100,0	100,0	

Table 20: First gap

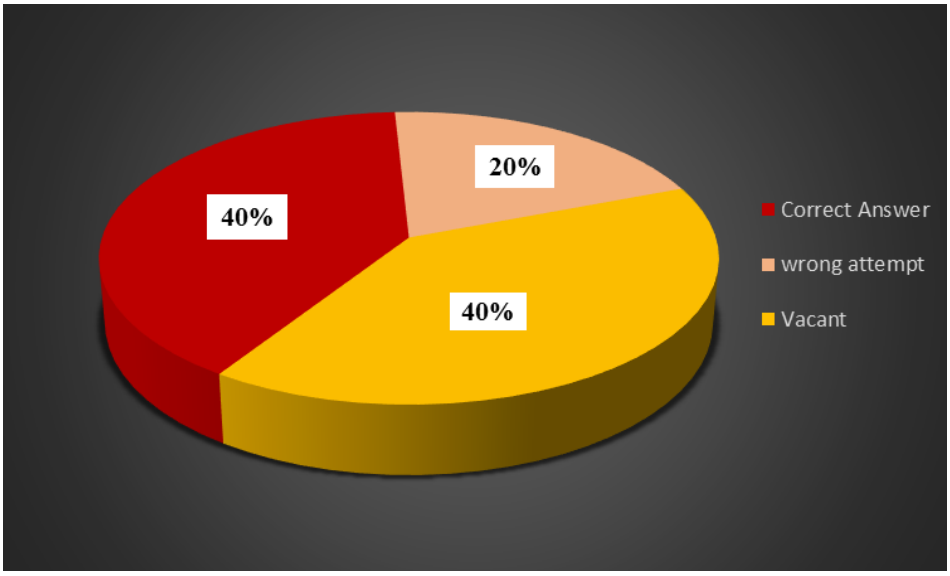


Figure 18: First gap

The results show that forty percent (40%) of participants were able to guess the pertinent word to the first gap. Equally, forty percent (40%) of participants failed to insert any word in the empty spot. Alternately, twenty percent (20%) of participants made an attempt to bridge the first gap but their attempt did not pan out.

The second gap

Gap 2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correct answer	5	25,0	25,0	25,0
	wrong attempt	11	55,0	55,0	80,0
	Vacant	4	20,0	20,0	100,0
	Total	20	100,0	100,0	

Table 21: Second gap

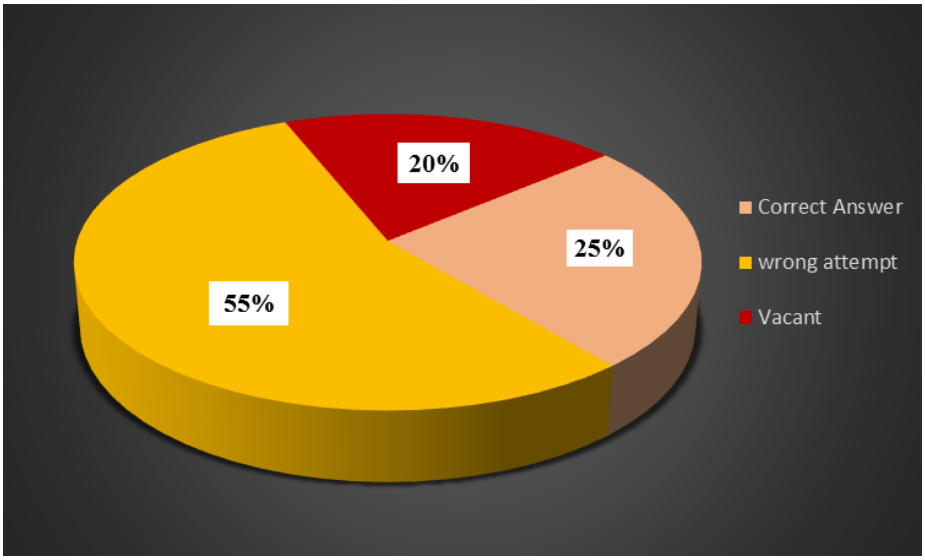


Figure 19: Second gap

This gap was left vacant without any trial whatsoever by twenty percent (20%) of participants. Moreover, fifty-five percent (55%) of participants successfully filled in the gap with the adequate missing word. Whereas, twenty-five percent (25%) of participants inserted words other than the correct one.

The Third Gap

Gap 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correct answer	5	25,0	25,0	25,0
	Wrong attempt	11	55,0	55,0	80,0
	Vacant	4	20,0	20,0	100,0
	Total	20	100,0	100,0	

Table 22: Third gap

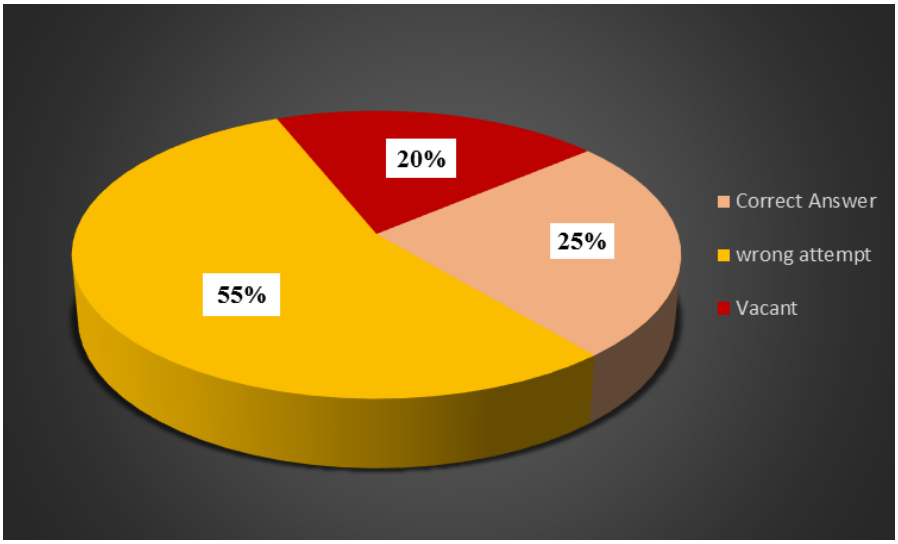


Figure 20: Third gap

Based on the results demonstrated by the table and pie chart above, fifty-five percent (55%) of participants tried to guess the missing word but missed the target. Nevertheless, twenty-five percent (25%) of participants filled in the gap using the correct word. The remaining twenty percent (20%) of participants decided to leave the empty spot as it is.

The Fourth Gap

Gap 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correct answer	2	10,0	10,0	10,0
	Wrong attempt	11	55,0	55,0	65,0
	Vacant	7	35,0	35,0	100,0
	Total	20	100,0	100,0	

Table 23: Fourth gap

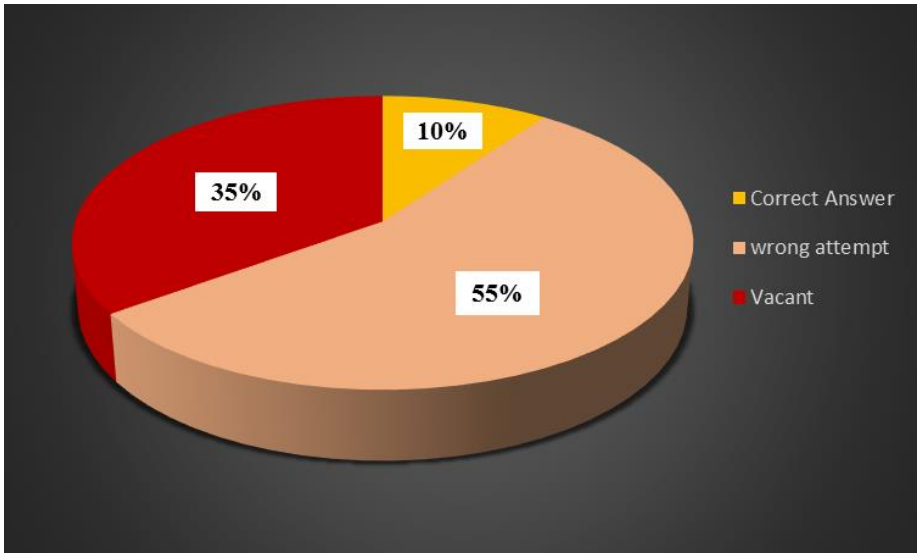


Figure 21 Fourth gap

The data collected with regard to this gap revealed that fifty-five percent (55%) of participants attempted filling in the vacant spot but were unable to insert the correct word. On the other hand, thirty-five percent (35%) of participants left the allotted spot for the missing word empty. Only ten percent (10%) were able to write in the appropriate word.

The Fifth Gap

Gap 5					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correct answer	2	10,0	10,0	10,0
	Wrong attempt	11	55,0	55,0	65,0
	Vacant	7	35,0	35,0	100,0
	Total	20	100,0	100,0	

Table 24: Fifth gap

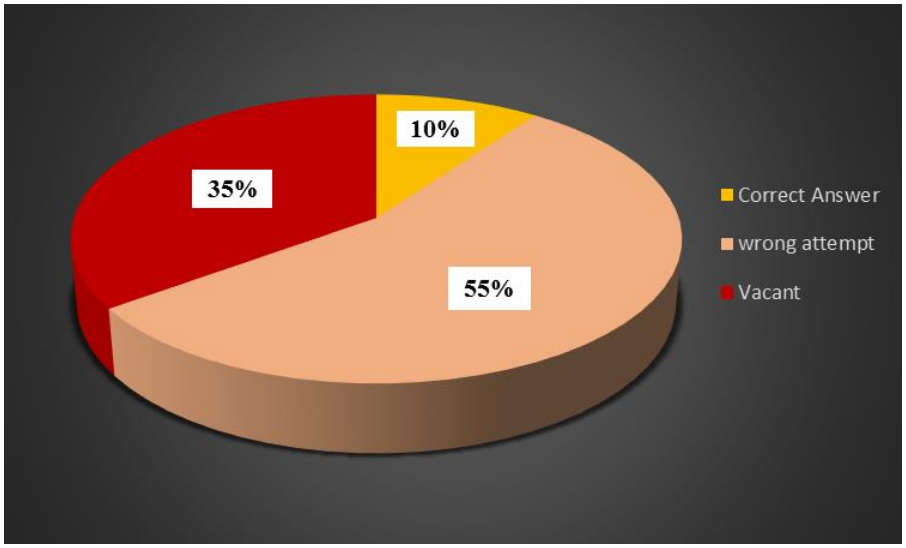


Figure 22: Fifth gap

The fifth and last gap appear to be challenging to fifty-five percent (55%) of participants, as they decided to leave this spot blank. This was not the case for the thirty-five (35%) of participants who did not manage to guess the missing word accurately, but tried to complete the meaning of the statement in which this gap was placed using different words. Only ten percent (10%) of participants were able to fill in this gap using the correct word.

3.2.3. Activity Two: Matching Exercise

The analysis of this activity consists of describing the frequencies and percentages of how items are connected to each other. In this regard, there are three classifications: items that are correctly matched, items that are ill-matched, and items that were not matched at all.

First match: EFL- English as a Foreign Language

EFL					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correctly matched	18	90,0	90,0	90,0
	ill-matched	2	10,0	10,0	100,0
	Total	20	100,0	100,0	

Table 25: EFL- English as a Foreign Language

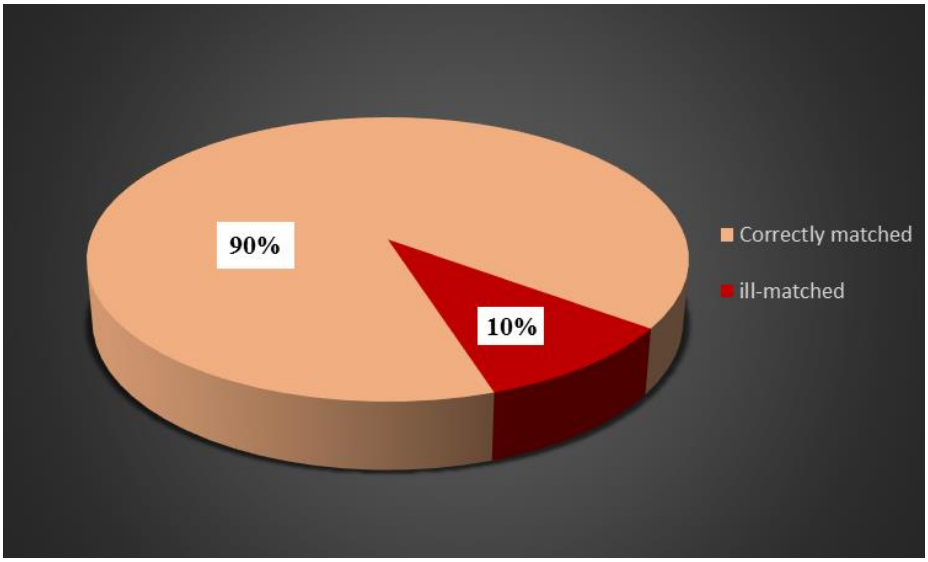


Figure 23: EFL- English as a Foreign Language

The collected data showed that the overwhelming majority, in other words ninety percent (90%) of participants, managed to connect correctly the item “EFL” to its corresponding definition. On the other hand, ten percent (10%) out of the overall number of participants linked the item “EFL” to the wrong match.

Second match: ESL- English as a Second Language

ESL					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correctly matched	18	90,0	90,0	90,0
	ill-matched	2	10,0	10,0	100,0
	Total	20	100,0	100,0	

Table 26: ESL- English as a Second Language

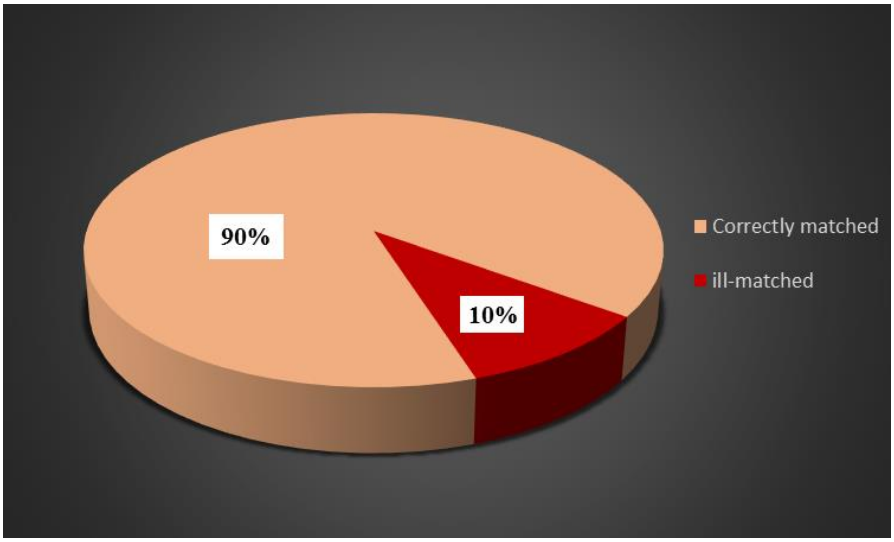


Figure 24: ESL- English as a Second Language

The above table and chart reveal that ninety percent (90%) of participants successfully connected the item "ESL" to its corresponding definition. Whereas, the remainder of participants, and more precisely ten percent (10%) of participants, connected the item "ESL" to the wrong definition.

Third match: Layman - a non-specialist

Layman					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correctly matched	19	95,0	95,0	95,0
	not matched	1	5,0	5,0	100,0
	Total	20	100,0	100,0	

Table 27: Layman - a non-specialist

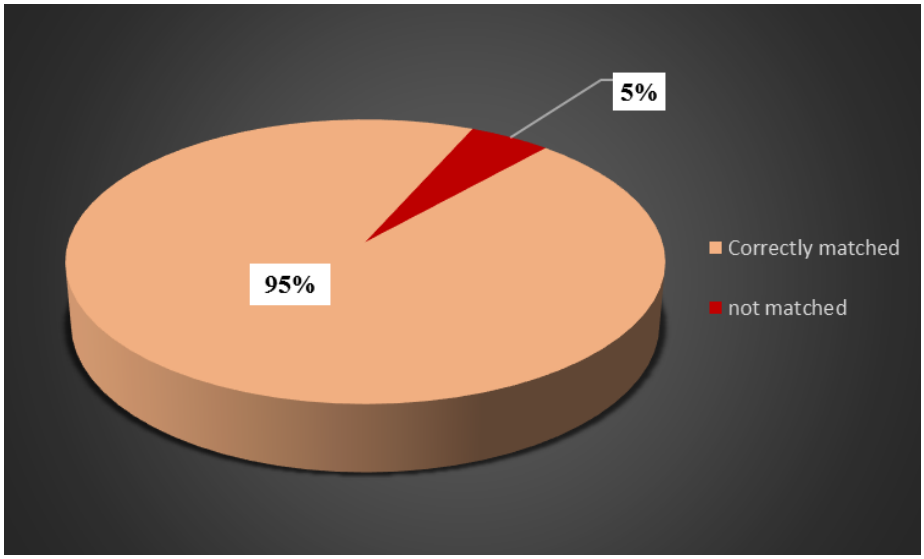


Figure 25: Layman - a non-specialist

The item “Layman” was successfully matched to its corresponding explanation by ninety-five percent (95%) out of the total number of participants. However, the table shows that there was still a slender percentage of five percent (5%) of participants who did not match the item “Layman” to its appropriate peer.

Fourth match: L2 - Second Language

L2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correctly matched	20	100,0	100,0	100,0

Table 28: L2 - Second Language

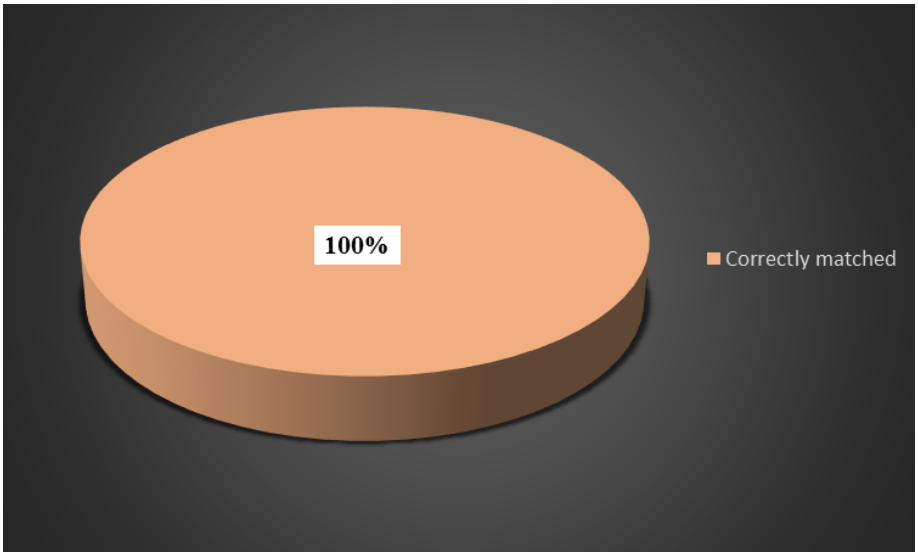


Figure 26: L2 - Second Language

According to the table and the pie chart above, the "L2" item was successfully match to its corresponding peer by all participants. There is a one hundred percent (100%) successful matching rate between "L2" and its adequate definition.

Fifth match: Behaviorism - a theory of learning: behaviors are learned through interaction with the environment

Behaviorism					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correctly matched	20	100,0	100,0	100,0

Table 29: Behaviorism - a theory of learning: behaviors are learned through interaction with the environment

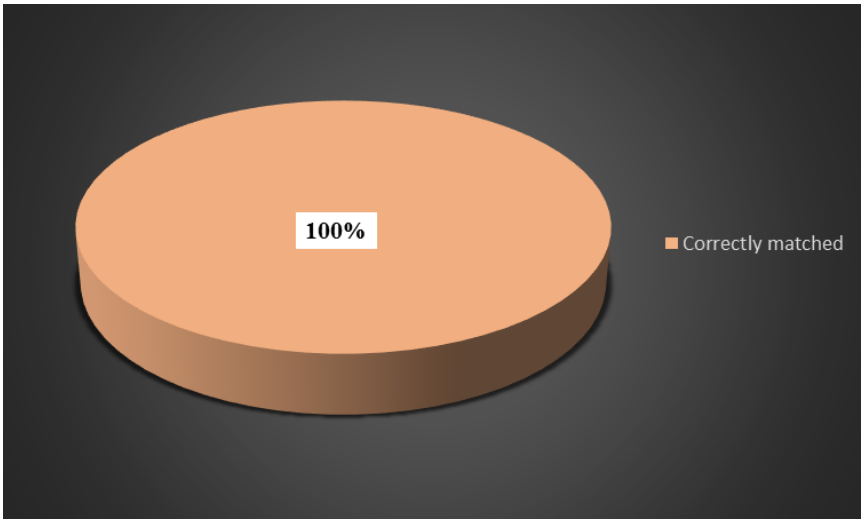


Figure 27: Behaviorism - a theory of learning: behaviors are learned through interaction with the environment

The table above illustrates that participants in their entirety were able to match the item "Behaviorism" to its corresponding definition. In this context, there is a one hundred percent (100%) successful matching rate between "Behaviorism" and its adequate definition.

Sixth match: Sociolinguistics - the study of language in its social context

Sociolinguistics					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correctly matched	20	100,0	100,0	100,0

Table 30: Sociolinguistics - the study of language in its social context

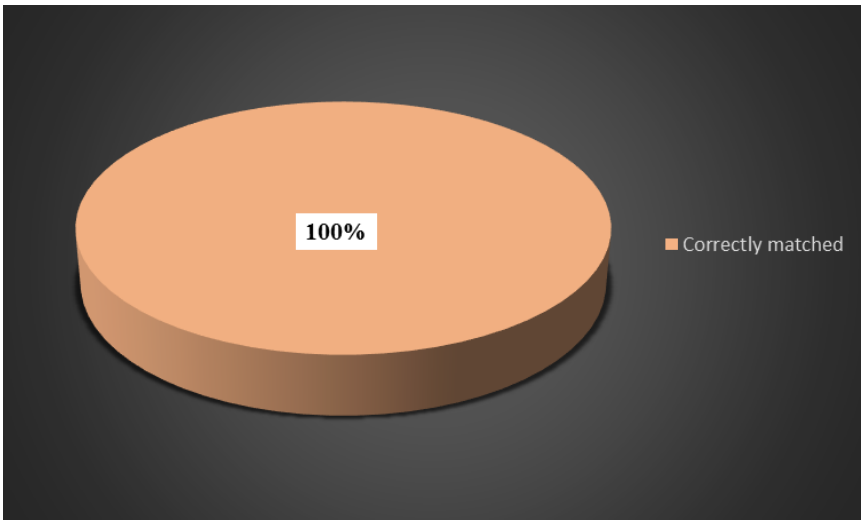


Figure 28: Sociolinguistics - the study of language in its social context

The table and Figure above indicate that all participants, or one hundred percent (100%) of participants, were able to correctly match the item “Sociolinguistics” to its corresponding definition.

3.2.4. Activity three: Open-ended question

In this activity students were asked to state whether they agree or disagree with the following statements and proceed to explain their standpoints. The researcher opted for a thematic analysis in analyzing participants’ answers. The latter was coded into one of the following themes (Each theme was coded using a letter from the English alphabet in order to facilitate the quantifying process of the results);

Theme	Code
General answers	A
Described personal experience	B
Used personal experience to support one’s argument	C
Observation derived from the relevant content schema	D
Relied on background knowledge	E
Combined background knowledge with personal experience	F

Table 31: Table of Themes

Statement 1: Learning English in a non-English speaking country is difficult.

Learning English in a non-English speaking country is difficult					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	3	15,0	15,0	15,0
	B	3	15,0	15,0	30,0
	C	6	30,0	30,0	60,0
	D	2	10,0	10,0	70,0
	E	4	20,0	20,0	90,0
	F	2	10,0	10,0	100,0
	Total	20	100,0	100,0	

Table 32: First statement

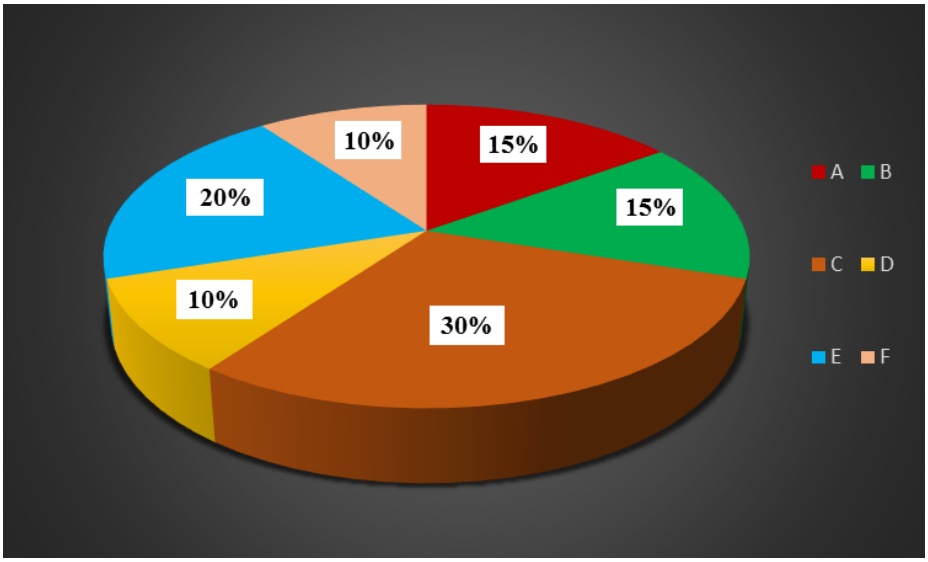


Figure 29: First statement

The analysis of the unstructured data obtained through this statement revealed that, thirty percent (30%) of participants used their personal experience to illustrate on their standpoint. Whereas, twenty percent (20%) of participants drew on their background knowledge in explaining why they sidelined with of rejected the suggested view. Moreover, fifteen percent (15%) of participants fully relied on their personal experience in justifying their stance, and an equal percentage of fifteen percent (15%) represented participants who provided generic arguments. Ten percent (10%) of participants combined their background knowledge with their personal experiences in supporting their position; while another ten percent (10%) represented the participants who relied on their general knowledge of the issue at hand in elaborating on their perspective.

Statement 2: Learning English in a non-English speaking country has become easier due to technology.

Learning English in a non-English speaking country has become easier due to technology					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	4	20,0	20,0	20,0
	B	4	20,0	20,0	40,0
	C	3	15,0	15,0	55,0
	D	1	5,0	5,0	60,0
	E	5	25,0	25,0	85,0
	F	3	15,0	15,0	100,0
	Total	20	100,0	100,0	

Table 33: Second statement

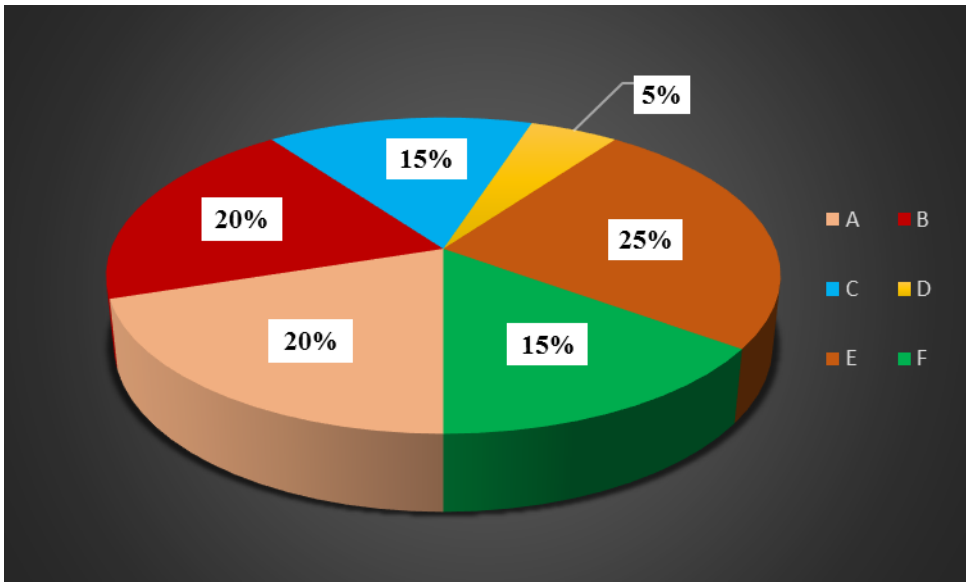


Figure 30: Second statement

Based on the table and Figure above, twenty-five percent (25%) of participants relied on their background knowledge in justifying their stance. Whereas, twenty percent (20%) of participants engaged in describing their personal experience with the issue at hand in supporting their standpoint. Equally, twenty percent (20%) of participants provided generic arguments. On the other hand, fifteen percent (15%) of participants made use of the relevant background knowledge along with the personal experience they have in their memory storage in relation to the statement under consideration. Eventually, a slim percentage of five percent (5%) represented participants who did not draw on one explicit source of information in formulating their arguments.

Statement 3: Developing a native-like English language proficiency as a non-native speaker in a non-English speaking country has become easier with the emergence of networking apps.

Developing a native-like English language proficiency as a non-native speaker in a non-English speaking country has become easier with the emergence of networking apps.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	6	30,0	30,0	30,0
	B	5	25,0	25,0	55,0
	C	4	20,0	20,0	75,0
	D	1	5,0	5,0	80,0
	E	4	20,0	20,0	100,0
	Total	20	100,0	100,0	

Table 34: Third statement

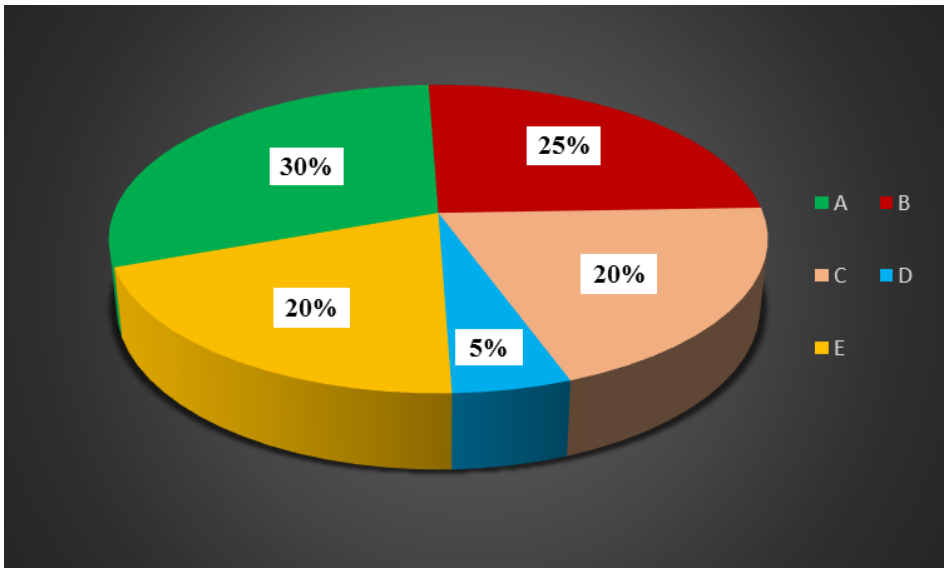


Figure 31: Third statement

Starting from the data carried by the table and represented in the pie chart, thirty percent (30%) of participants provided generic arguments to endorse their stance. On other hand, twenty-five percent (25%) of participants described a personal experience to validate their position. Whereas twenty percent (20%) of participants used their personal experiences to vouch for their own perspective. Equally, twenty percent (20%) of participants harnessed their background knowledge to strengthen their token. A slender percentage of Five percent (5%) of participants derived their argument from their schematic content knowledge.

Conclusion

This chapter displayed and explained the data collected through the research instruments used in this study. We starting by exhibiting the results of the questionnaire. The latter is composed of two section: the personal questions section, and the core questions section. Initially, we presented the results of the statistical analysis of personal question, then transitioned into core questions, for which we provided the description of frequencies and percentages that was achieve using the SPSS, and followed with the graphic representation of the results. Furthermore, we tackled the results of the reading comprehension test. We commenced with activity one, which was analyzed qualitatively using thematic analysis. We briefly explained the themes and how they were coded in order to facilitate the process of interpreting the data carried in the tables and the pie charts. We proceeded to expound how the schematic content of participants was used to distinguish between participants who possess an appropriate schema, participants who lack the relevant schemata, participants with flawed or incomplete schematic knowledge, as well as participants who faced troubles at the level of activation of the schematic content knowledge. Subsequently, we displayed the results with relation to every theme based on the answers of each participant. We followed with the results garnered by means of the cloze test. the results of the latter were dealt with in terms of the amount of times each vacant spot was filled in using the correct word, filled in using a wrong word, or left empty. Each gap was subjected to a statistical analysis independently from the remaining empty spots. Moreover, we analyzed the matching exercise in terms of the hits and misses. In other words, the researcher described statistically the number of times items were correctly matched, ill-matched, or unmatched. Finally, we treated the unstructured data gathered by virtue of the activity three, which consisted of three controversial statements. Participants were supposed to either agree or disagree with each of the given statements then explain their own perspective. Participants answers were analyzed using thematic analysis and quantified using the SPSS. As part of the qualitative analysis themes were created based on the meanings conveyed by participants' answers. themes were then coded, described statistically, then represented using pie charts. The number of agreements or disagreements of each participant with each of the suggested statement was excluded from this chapter and included under the appendices heading, for it carries no influence on the research outcomes.

CHAPTER FOUR: DISCUSSION OF THE FINDINGS

Introduction

This study places under investigation L2 reading comprehensions in order to examine a major influencing factor on the performance of readers. In this context, schematic content knowledge was monitored in order to discern its potential effects on L2 reading comprehension. It is necessary to reiterate that this research treats comprehension as a general cognitive mechanism, in which the brain computes all incoming data identically regardless of the sensory receptor through which they were communicated. Therefore, the results attained are susceptible to being inclusive of the comprehension of textual materials produced in any language that is comfortably intelligible to readers. Additionally, we regard reading as a process through which readers comprehend texts by virtue of an interaction between the content of the text and their background knowledge. As a point of fact, the interpretation of readers to reading materials is determined by the stored information stimulated by means of the textual cues. Hence, the meanings reflected by texts, are to a large extent, decided upon by readers. The background knowledge of readers contributes to the conception or fortification of mental structures that are referred to as content schemata. Therefore, reading comprehension is assumed to be subject to influence by the schematic knowledge of readers. The latter is an extensive network that encompasses a wide variety of data starting from pre-conceived ideas all the way to factual knowledge. For that matter, readers conjure up the data that appears to me most convenient based on the textual cues installed in texts. Thus, texts are compelled to be equipped with relevant stimuli in order to fulfill the aims of reading. Activation is, then, suggested to be a valid strategy to ensure that readers conjures up information that are compatible with the meanings that the writer intended to convey. In this chapter, we discuss the finding of the research in an attempt to verify the aforementioned claim, and explore the influence of schematic content knowledge on L2 reading comprehension.

4.1. Discussion of the Results of the Questionnaire

The questionnaire was initiated with a number of personal questions, which targeted minimizing the interference of external variables with the results of the study. The five personal questions were used to discern whether the processing system of participants has been used to an incoming influx of data in L2 (English language in our context). Given that comprehension is a purely cognitive and highly abstract process, questionnaires were the most credible route

towards discovering the amount of contact between participants and English language. Along this view, personal questions were included to ensure that participants' failure to answer accurately stemmed from their knowledge scarcity with regard to the topic of the questionnaire, rather than a lack of interaction with the language.

4.1.1. Discussion of the Findings of Personal Questions

Question 1: This question aimed to recognize if participants had a consistent exposure to the target language (English) prior to pursuing English language as their major at university. This question along with the other personal questions were used to justify the underperformance of participants. This was not abided by religiously, but these questions were designed with the possibility that participants may fail due to their linguistic incompetence in mind. These questions are not a solid indicator of the actual linguistic level of participants, but a way to discern if participants are capable of comprehending an input in English as a result of an extensive contact with the language. This research is mostly concerned with the underlying processes to reading (comprehension); thus, we emphasized that the processing system of readers is accustomed to L2.

Question 2: This question aimed to identify how often participants are exposed to English. As explained above, participants whose language processing system is used to receiving incoming cues in English, are more likely to achieve comprehension relatively effortlessly. Although most participants affirmed that they did not and were no at the moment of filling out the questionnaire, taking any extra courses taught in English; the vast majority reported that they frequently listen, watch, or read content produced in English language. Participants major in English; thus, even if they did not take any extra courses, they are enjoying a sufficient exposure to the language during their class hours. This minimizes the chances of failing to answer due to defects at the linguistic level.

Question 3: This question directly targeted the reading comprehension skill. This question identified participants whose processing system has been trained to receive input in English and attempt achieving comprehension. In this regard, participants who failed to answer a given answer despite affirming that they often read in English, are most likely to have failed due to the absence of an appropriate content schema.

Question 4: It is important to emphasize that this research looks at comprehension as a general cognitive process, in which we disregard the sensory organ through which data is communicated to the brain as long as it triggers comprehension. Therefore, the fact that most

participants have been frequently exposed to input in English, even if the route of transmission is listening, minimizes the possibility that students were unable to pick out the correct answer as a result of shortcomings at the level of their linguistic knowledge.

Question 5: Most participants declared that they do often watch content produce in English. Therefore, the language processing system of most participants is used to practicing receiving and comprehending input in the target language, English. This fact further reduces the likelihood that participants were incapable of answering correctly as a result of a linguistic failure.

Participants who partook in the questionnaire and subsequent reading comprehension test were handpicked by the researcher based on their performance in the preliminary test. Those participants proved to have a large vocabulary size and advanced inferencing skills relative to the remainder of testees. Vocabulary knowledge was stressed in order to minimize, and potentially eliminate, the likelihood of committing mistakes as a result of linguistic pitfalls. Additionally, the selected participants were deemed to be capable of relying on their inferencing skills in drawing the meanings of unfamiliar elements in the text starting from the familiar ones. On the other hand, the participating individuals have either read the book of "Pride and Prejudice", or the summary of the plot of the same book. These participants also confirmed that they have enjoyed an extensive exposure, either individually or during literature class, to the book under consideration. In this case, participants' inability to choose the correct answer will be exclusively ascribed to the absence of schematic content knowledge, as long as the linguistic odds are kept extremely low, and participants are well acquainted with the contextual characteristics of the book.

4.1.2. Discussion of the Findings of Core Questions

The core questions in the questionnaire had contrastive degrees of specification. Questions varied from somewhat general to highly specific in order to have an idea about the performance of participants who had read the book and those who consulted the summary only. Therefore, participants' failure to answer correctly did not take place due to the lack of familiarity with the content addressed by the questionnaire, but rather, by virtue of the absence of a mental structure that carries the appropriate content knowledge.

Question 1: The answer to this question was not within the reach of participants who did not read the book. Consequently, only a slender a percentage of participants were able to land on the correct answer; whereas half of participants declared that they failed to identify the

correct answer because they did not read the book. This supports the suggestion that the absence of schematic content knowledge cannot be bridged through depending on one's linguistic, inferencing skills (top-down processing abilities), or even general related knowledge.

Question 2: In this question, participants who did not read the book explicitly stated that by selecting the fourth option. Thus, the absence of the appropriate content schema result in a failure in performing well in reading comprehension tasks. Moreover, participants were unable to compromise for this absence despite their linguistic familiarity with the language. On the other hand, over half of the respondents were able to successfully spot the correct answer. The presence or absence of the appropriate content schema are robust predictors of the performance of students in reading comprehension tasks.

Question 3: This question revolved around a central element in the plot of the book of "Pride and Prejudice: the number of sisters that the female protagonist had. Around half of participants chose the correct answer; whereas the remainder of participants admitted that they were unable to spot the right answer, either because they did not read the book, were not present during the lesson, or were inattentive when this very book was discussed. Thus, participants who failed to answer correctly did not have any prior knowledge that had a direct rapport with the information questioned in this question.

Question 4: The data collected by means of this question yet again endorsed the observation that the absence of the adequate content schema cannot be bridged by drawing on the familiar aspects of the text. Participants with no related prior knowledge either selected random inaccurate answers or declared that they were unable to identify the correct answer as they did not read the book. Participants steered towards mainly two options, either the correct option, or another option that possibly reflect the personal interpretation of participants.

Question 5: This question revolved around a moderately specific detail in the plot of "Pride and Prejudice": The character of the mother of the female protagonist. Answering this question was, however, more accessible to the ones who read the book. Participants who did not read the book were unable to answer correctly. This is a proof that even the knowledge of the general context of the target information does not compromise for the absence of the appropriate content schema. The particularity of certain information necessitates the presence of a specific schematic content knowledge in order for comprehension to occur.

Question 6: In this question, most participants admitted to the fact that they did not read the book. Participants who did not read the book were unable to spot the correct answer even though

they were familiar with the plot of the book under concern. This stands as a witness that the absence of the relevant content schema cannot be amended by drawing on the familiar aspects of the text.

Question 7: This question was very plausible to answer unless participants possessed the requisite content schema. In this regard, participants who did not have the appropriate content schema did not try to speculate and directly confessed that they were absent or inattentive when the required information was delivered by the teacher. On the other hand, participants who possessed the relevant mental structure were able to land on the correct answer. Hence, once comprehension is secured at the linguistic level, failure to perform well in reading comprehension tasks could be attributed to the absence of the appropriate content schema.

The absence of schematic content knowledge appears to be critical and cannot be amended using top-down processing capabilities. The selected participants had proven to be able to draw inferences whenever they needed to, but they were still unable to answer certain questions that necessitated information from the schematic content knowledge they lacked. If readers do not possess the appropriate schematic content knowledge, they can grasp the denotative meaning of utterances if they have the required linguistic skills but fail to associate them with a relevant mental structure. In the context of this research, participants confirmed that they were subject to repetitive exposure either to the book in its entirety or the plot only. Hence, participants were cognate of the intent of every question and either succeeded at or failed to conjure up the relevant schematic content knowledge. Nevertheless, in some cases content schemata were inexistent resulting in a random choice of answers. In the sixth question, most participants either steered towards the correct answer or announced their inability to detect the correct answer as a result of their lack of the pertinent background knowledge. Respondents were not absolutely clueless on the prevailing theme of the questionnaire but they were not necessarily in the loop on certain particularities, such as the psyche of secondary characters. The general understanding of questions was not affected by the absence of specific schemata, but it could not lead to the creation of the appropriate schematic content knowledge using purely abstract top-down processes. Hence, the conception of appropriate content schemata requires direct and deliberate exposure to the target information. To back this up, the answer to the seven question could not be speculated by means of inferencing or making guesses. It was very plausible for participants to acquire the correct answer to this question even if they did read the book, unless they were explicitly instructed on the needed information. Consequently, participants split into two parties, those who answered correctly, and participants who confessed to not having any

relevant prior knowledge. In this perspective, Schematic content knowledge originates in straightforward exposure to the target knowledge, and cannot be conceived by drawing on the existing peripheral cognitive structures (Carrell & Eisterhold, 1983).

4.2. Discussion of the Findings of the Reading Comprehension Test

In this test, students enjoyed continuous activation of the appropriate schematic knowledge if present. The researcher investigated the effects of activation on the performance of participants in L2 reading comprehension by equipping every textual material with the corresponding cues. Therefore, participants were subject to activation all throughout the test.

4.2.1. Discussion of the Findings of Activity One

In this activity, answers of participants were taken as a representation of the schematic content knowledge they had in relation to the topic under consideration. The researcher used thematic analysis in order to parse the answers of each respondent and gain insights into the condition of their content schemata. The most recurrent answering pattern was considered to be the input which participants received in class. In other words, the meanings that were conveyed by the overwhelming majority were deemed to be measure against which the schematic content knowledge of participants was evaluated. On the other hand, variations at the level of verbiage was taken as an indication of the influence of prior knowledge on the comprehension of each participant.

Participants who possessed an appropriate schematic knowledge were able to provide answers that conformed with the mainstream answering scheme; however, the wording varied from one participant to the other. In this case, participants were able to harness the pertinent knowledge they had with regard to the topic being questioned. The textual cues contributed towards the stimulation of the most relevant content schema. Nevertheless, the test revealed that content schemata can also be found in a malformed condition. Participants with incomplete or flawed schematic content knowledge submitted answers that did not fully comply with the common answering scheme. This also does not mean that their answers completely diverged from what was considered to be the correct answer. Respondents with flawed content schemata exhibited an incomplete and inconsistent answering fashion where meaning units were only partially correct. Given the fact that this study deems participants' answers to be an indication of their comprehension of the input they received in class, incomplete content schemata can be attributed to shortcomings at the level of comprehension. In this respect, the text included in

this activity managed to tap on the most relevant cognitive structure, which was not mature enough to convey a comprehensive meaning.

On the other hand, activation cannot occur if there is no trace of an appropriate content schema. Participants who lacked the adequate schematic content knowledge were unable to provide correct nor incomplete answers despite the presence of relevant textual cues. This type of participants was classified as respondents with absent content schemata for they had no clue on the topic being questioned. In this event, there is no mental structure to be targeted using lexical stimuli. Therefore, activation is pointless unless readers have a relevant pre-existing cognitive scheme that can be stimulated. Activation in this sense, feeds on the schematic content knowledge of readers, which is determined by the comprehension skills of each receptor. This is why we detected discrepancies at the level of the output despite the homogeneity of the input received in class. Nevertheless, under the absence of appropriate content schemata, textual cues will not perform their assigned mission, and it will even be inadequate to refer to them as cues.

The success of activation is contingent on a couple of predominant factors: textual cues, and the content schemata of readers. The efficiency of textual cues is determined by how responsive readers are to these cues. Which is in turn, controlled by the schematic content knowledge of readers. Therefore, what is assumed to be an effective textual cue by the writer may not perform its role when readers do not have the appropriate content schema. In this regard, readers are the determinant of how outstanding a cue is based on their schematic content knowledge.

The absence of appropriate content schemata can result in the stimulation of the closest cognitive structure in terms of relevance. For instance, a participant conjured up a notion that fell under the same larger cognitive pattern (sociolinguistics), and had some shared criteria with the sought after schema. Along this line, participants can resort to the most seemingly similar schema in order cover up for the absence of the needed information. This can take place deliberately or without any intention by the reader to function accordingly. Henceforth, activation as an external stimulus, heavily depends on the cognitive processing of readers. In other words, the cognitive system of readers is the determining factor of the outcomes of activation.

The absence of appropriate content schema did not only appear to affect the course of the activation process, but also preclude participants from answering correctly. Participants who lacked the requisite schematic content knowledge provided responses that had no rapport with the information sought after by the questions. Some of these participants abstained from

submitting any response whatsoever. Thus, the absence of appropriate content schemata entails the absence of the necessary mental resources for achieving comprehension. Based on the collected data, this absence appears to be impossible to overcome by drawing on the tools available (the text) for supporting the bottom-up processing of readers.

4.2.2. Discussion of the Findings of Activity Two

Activity two consisted of a cloze test and a matching exercise. In the former task, participants were requested to fill in the gaps in the given text. The text used in this test maintained the theme that was used in the previous activity, in order to stretch out the effects of the activation process and emphasize the stimulated content schema. The missing words were utterly specific and impossible to guess without having the pertinent prior knowledge. As anticipated, participants who did not have directly related information to the missing words were unable to complete the empty spots. Only participants with the relevant schematic content knowledge were able to insert the correct words in the pertinent spot. Whereas, other participants tried to plug in words that had the most relevance with the text at hand as an attempt to bridge the gaps and achieve comprehension. However, the first gap was supposed to be filled in using a basic work that did not pertain to the theme that has been maintained starting from the first activity. Hence, activation procedures that target a specific content schema may result in an oversight of familiar information that are irrelevant to this particular schema.

In the matching exercise, participants were asked to match acronyms, that were not explained at any point in testing, with their corresponding definitions. Instead, participants tackled all of the listed acronyms in sociolinguistics class. Participants were able to connect items to their corresponding definitions even though no further explanation was provided. Hence, we can say that the presence of schematic content knowledge can compensate for the absence of elaborate explanations, provided that readers are able to call into action the appropriate information from their memory storage. Additionally, activation appears to be more efficient in the presence of the appropriate content schema.

4.2.3. Discussion of the Findings of Activity Three

This activity was used to explore the role of content schemata in L2 reading comprehension. Participants were asked to express their perspectives on certain topics and follow on with providing arguments to justify their stance. The submitted responses were considered as a gateway towards the schematic content knowledge of participants. In most cases, participants relied on their background knowledge, personal experiences, or both, in elaborating on their

personal opinion. Whereas, the absence of a clear argument was always associated with a generic explanation that did not showcase the standpoint of the respondent. On the other hand, participants with relevant content schemata discussed their prior information and previous experiences openly. It is worth noting that the inception of a content schemata can take place as a result of receiving information by means of formal instruction, as well as a result of a casual experience.

Additionally, we were able to detect the presence of an appropriate schematic content knowledge even when explicit links were not made by respondents between the meanings they attempted to transmit and the corresponding mental structures. In some cases, participants wrote down observations without referring to the triggering circumstances of these observations. Nevertheless, they still appeared to originate in an experience with the outside world in the contemporary times. For example, a participant maintained that learning English nowadays is more of an obligation than choice, and endorsed their claim by stating that video games similar to the Call of Duty are designed to operate in English. This information cannot be the outcome of robust top-down processing, but it rather stems from a real life experience or an internet search, which in turn led to the construction of a corresponding content schema. Along this line, readers draw on their established content schemata in order to comprehend and comment on the content of a given text.

Moreover, the statements provided in this activity pertain to the same theme as the previous two tasks. Therefore, participants had their activated schematic content knowledge ready for access by now. In fact, most participants did rely on their content schemata in explaining their own ideas. Some participants described their personal experiences as a real life proof on the perspective they were trying to communicate. Hence, content schemata are considered by readers as a credible mine of information, which they can dig into whenever needed. However, there was still a minority that reformulated the given statements or talked in an utterly general manner that they were conveying no specific point. In this case, we can say that activation strategies cannot stimulate a knowledge that does not exist to begin with. The main purpose of activation is to enable a smooth access to the existing schematic content knowledge, which means that we are assuming that there is a content schema to be targeted. Although content schemata are the product of an exposure to certain set of data, it is not guaranteed that this data is going to be structured and grounded in the brain of the receptor. In our scenario, although participants were subject to an identical input in the classroom, they exhibited contrastive performances. In some cases, participants were even reported to lack the

basic knowledge of the topic under consideration. Consequently, content schemata can but not always will, be conceived as a result of direct contact between individuals and a certain set of knowledge.

4.3. The Influence of Content Schema on L2 Reading Comprehension

This study observed that readers tend to link the content of the text under consideration to the most relevant cognitive structure in their schemata network. Along this line, content schema represents the resource of data that readers refer to in order to achieve comprehension (Carrell & Eisterhold, 1983, Al-Issa, 2006, Soltani & Malaee, 2015, & Jafri, 2017). Readers were noticed to attempt to associate between their prior knowledge and the textual material in order to identify the overlapping aspects between the two. Therefore, content schema contributes to comprehension in which it provides the familiar input that readers can draw on in order to comprehend new information. The tests used in this investigation revealed that readers attempt to project the meanings stored in their content schemata onto the text being read, when the latter does not contain familiar information, or try to link the meanings in the text to their schematic content knowledge, but their attempts did not succeed unless they did have the requisite information stored in their memory. Additionally, when readers happen to have the appropriate schematic content knowledge, they exhibit better performance at reading comprehension tasks in comparison to readers who have a less relevant or an absent content schema. This outcome endorsed the first hypotheses which suggested that The presence of the requisite schematic content knowledge affects the performance of readers in L2 reading comprehension tasks positively (Soltani & Malaee, 2015). Moreover, when readers are equipped with the appropriate content schema they are able to achieve comprehension using the minimal amount of textual cues. Therefore, content schema enables readers from performing complex cognitive processes by drawing on a limited number of stimuli.

4.4. The Influence of the Absence of an Appropriate Content Schema on L2 Reading Comprehension

In this research, we explored the influence of the absence of an appropriate schematic knowledge on reading comprehension. The results showed that readers who lack the appropriate content schema are unable to achieve comprehension of the textual material. This observation falls in line with the hypothesis that the absence of the requisite schematic content knowledge affects the performance of readers in L2 reading comprehension tasks negatively (Xiao-hui, Jun, & Wei-hua, 2007). The absence of appropriate schematic knowledge causes the reader to

conjure up different stored information as an attempt to, what appeared to be, covering up for the absence of the requisite schematic knowledge. Therefore, the presence of a relevant content schema is quite important that readers try to feed on the most pertinent schematic content knowledge in order to attain comprehension. Furthermore, the absence of the adequate schemata impedes the comprehension process. Participants with no appropriate content schemata were unable to have a grasp on the texts provided. Therefore, in reading comprehension tasks, comprehension is more likely to occur when the schematic content knowledge of readers corresponds to the content of the text. Participants were also observed to exhibit various answering patterns despite the fact that they were exposed to an identical input, this led the researcher to conclude that there is a significant between the input that readers receive and their intake. The latter varies according to the schematic content knowledge of readers.

4.5. The Influence of Activation on L2 Reading Comprehension

This study exposed participants to strategically cued texts in order to monitor the influence of activation on L2 reading comprehension. The collected data revealed that activation help guiding the attention of readers towards one subject area. Consequently, only the most relevant schematic content knowledge will be stimulated and called into action. However, it was noticed that when readers are immensely focused in one topic, it renders the process of stimulating data from distinct content schemata more difficult to achieve. The excessive activation one particular topic appears to reduce the likelihood of recalling information from distantly different content schemata. additionally, activation is a procedure that works on “activating” content schemata. In other words, activation will only be fruitful if readers possess the target schematic content knowledge to begin with. In this respects, the third hypothesis formulated in the beginning of this research is not completely accurate, for activation is only effective when readers possess the required schematic content knowledge (Carrell & Eisterhold, 1983, Saito, 2002, & Young & Jee, 2020). Activation does not always activate the schematic knowledge that the writer anticipates. The outcomes of activation are determined by the nature of the schematic content knowledge of readers, and how elaborate their schemata are. Activation can only aid readers to link the content of the text to their schematic content knowledge (Zarei & Mahmudi, 2012).

Conclusion

In this chapter we provided a rundown on the results obtained by virtue of the data collection instruments used in this study. We started by emphasizing that this research perceives of

comprehension as a general mechanism that operates on all oncoming data identically regardless of the sensory organ through which it was transmitted to the brain. Additionally, we discussed the results of the questionnaire, in which we commenced with clarifying the objectives of personal questions and how they were used to minimize the interference of irrelevant variables to this study. Subsequently, we explained the procedures followed by the researcher in interpreting the results of core questions in the reading comprehension text. We proceeded to explain the significance of schematic content knowledge in reading comprehension based on the data collected through the questionnaire. In this regard, participants who proved to possess the appropriate schema had an edge over participants who had superficial to no knowledge on the book of "Pride and Prejudice". We followed this section with a discussion of the results of the reading comprehension test. We started by interpreting the findings of activity one, where we elaborated on the observation that the absence of the requisite schematic content knowledge impedes or cancels comprehension. Moreover, the tests showed that readers would attempt to rely on their most relevant knowledge to amend the issues they had at the level of their content schema. Furthermore, the researcher expounded the difference between flawed schemata, present schemata, and absent schemata and how each of them seemed to have served or held back the performance of participants in the assigned activity. Additionally, the researcher elaborated on the effects of organic activation using textual cues on the stimulation of the appropriate schematic content knowledge of readers. In this context, we noted that textual cues helped steering participants towards the desired schemata, in which they failed to retrieve a basic word that most possibly belonged under a distinct cognitive structure. Nevertheless, activation had no fruitful effects when participants lacked the appropriate schema as there was no relevant knowledge to be stimulated by the used cues. In the following section, we discussed activity one, which consisted of a cloze test and a matching exercise. This section encompassed a discussion of the results we collected a propos the impact of the lack of schematic content knowledge on L2 reading comprehension. We reported that the absence of the appropriate schematic content knowledge had contrastive degrees of negative impacts on participants. Furthermore, we exhibited how content schemata was noticed to hold a positive influence on the performance of participants in the assigned L2 reading comprehension tasks. Moreover, we exhibited the findings of the third activity and elaborated on the required conditions for activation to function properly. In the end, we reflected on the influence of content schemata on L2 reading comprehension, the influence of the absence of the appropriate schematic content and the influence of activation on L2 reading comprehension

GENERAL CONCLUSION

The efficiency of reading comprehension is measured in terms of the accuracy of the comprehension of each reader. However, comprehension is relative and depend on the background knowledge of readers, and its level of compatibility with the written or print text at hand. The heterogeneous nature of reader's prior knowledge, pre-conceived ideas, and previous experiences with their surrounding impose that understandings vary by means of readers rather than texts. In this respect, readers formulate contrastive understandings of the similar text, and subsequently produce interpretations that are not necessarily similar. This reality, led Goodman (1967) to suggest that reading is a guessing game, whereby the process of reading a text entails that readers engage in a guessing journey, for they constantly attempt to make predictions and assumptions on what is yet to come and what an expression or word could possibly mean. Therefore, reading is suggested to be a process of reconstructing meanings, in which readers draw on their stored data in order to comprehend texts. The significance of background knowledge was further showcases by the schema theory, which maintains that the information acquired by readers through interacting with the outside world, triggers the inception of mental structures that organizes and contains the received data. The established cognitive schemes are the resources that readers harness in order to reconstruct meanings and make sense out of texts. Nevertheless, texts are expected to encompass the appropriate textual cues in order to stimulate the relevant information for more efficient outcomes. Moreover, different types of schema were recognized: linguistic schema, formal schema, along with content schema. This research centers on the exploring the role of content schema on reading comprehension. It is worth noting that the literature included in this research all pertain to L2 reading comprehension; it was mentioned if it happened to be otherwise. Along this line, we verified the validity of the suggestion that content schema is a principal element in the process of L2 reading comprehension. The researcher opted for examining the impact of the absence of an appropriate schema, in order to examine how crucial it is to possess relevant schematic content knowledge to the text being read. Additionally, in order to investigate the genuine significance of content schema, we tested the effects of equipping texts with the adequate textual cues on the performance of readers in reading comprehension tasks. In this respect, we also explored the effects of activating the appropriate schematic content knowledge on L2 reading comprehension, in order to ensure that the factors inhibiting the processing system of readers from tapping on the target schema, are kept to minimum.

The initial chapter of this research worked on introducing the relevant literature to our own area of concern. In this chapter, we presented the different definitions of reading comprehension and its main constituents: reading and comprehension. Additionally, we explained Gernsbacher's Structure Building Framework (SBF), which provides a framework on comprehension and how it functions. In order to provide a clear idea of the belief system of this research, we also introduced the view that reading comprehension is a general mechanism that is carried identically regardless of the mode of perception. Moreover, we discussed the factors influencing reading comprehension, and followed with an extensive explanation of the schema theory, schema, and the different types of schema. In this regard, the SPF was included in this research in order to expound how schema are conceived on a cognitive level. Finally, we commented on a number of studies conducted in the area of reading comprehension with relation to the schema theory with an emphasis on content schema.

In this research we delved into the application of the testing tools developed by the researcher. Firstly, we introduced the research population and explained the reason behind opting for third year English students at Yahia Fares University specifically. Subsequently, we expounded the preliminary study and how it was used in shortlisting the subjects of the study and increasing the credibility and validity of the results. Additionally, we displayed the research instruments used in this study: the preliminary test, questionnaire, and reading comprehension tests, and dissected how each of them serve the aims of this investigation. Moreover, we discussed how the qualitative data acquired through the questionnaire, preliminary test, and activity two from the reading comprehension test were analyzed using the which the Statistical Package for the Social Sciences. On the other hand, we explained thematic analysis and its suitability for analyzing the unstructured data collected by means of qualitative instruments. In order to ensure the transparency of this research, we tackled in great details how the process of creating themes and codes was conducted.

This chapter displayed the outputs of the statistical analysis of the collected qualitative and quantitative data. We commenced with the qualitative analysis of the questionnaire. In this section, we presented the results of the analysis of each question independently. The analysis was conducted using the Statistical Package for the Social Sciences (SPSS), whereby the frequencies and percentages of every question were described and subsequently represented using pie charts. Secondly, we tackled the analysis of the reading comprehension test, in which we covered the analysis of the second activity which was analyzed quantitatively using the SPSS. Moreover, we displayed the results of the thematic analysis (TA) of activity one and

activity two. The frequencies and percentages of the themes created by means of TA were described using the SPSS and represented in pie charts as well. The results of the preliminary test were excluded from this chapter for it was used as a tool to shortlist participants and boost the validity of the study, and did not hold any impact on the overall results of this research.

The last chapter was responsible for articulating the numerical data obtained by means of the statistical and thematic analysis. In this chapter we discussed the findings of the questionnaire and the three activities of the reading comprehension test. We started by exhibiting how the absence of content schema influence L2 reading comprehension based on the collected data. Then, we addressed the influence of activation and textual cues on the performance of participants in L2 reading comprehension tasks. Subsequently, we introduced the findings we were able to attain with regard to the influence of the schematic content knowledge of readers on L2 reading comprehension. Finally, we revealed how our findings compared to the hypotheses that we advanced at an earlier stage in this research.

On the whole, reading comprehension is a skill that requires from readers to draw on their stored knowledge in order to break down the meanings contained in a given text. This requirement entails that readers will always have contrastive understandings of the same text, due to their heterogeneous backgrounds. The prior knowledge of readers is organized into cognitive structures that are identified as schemata. The latter has three types, but content schemata was proven to have a robust impact on the comprehension of the meanings of texts. Therefore, this research verified how crucial it is to possess an appropriate schema for performing reading comprehension tasks. This research regards comprehension as a general mechanism that does not change by the change of the mode of perception. Thus, the findings of this study are flexible and are not necessarily specific to reading comprehension in the second or foreign language. This investigation revealed that the absence of the appropriate schematic knowledge does affect the performance of readers negatively, whereas possessing the requisite topic knowledge facilitates comprehension and enable readers to operate on the minimal textual cues available. Additionally, the presence of adequate textual cues and the use of activation procedures does not guarantee comprehension, for effective activation depend on the schematic content knowledge of readers. Hence, activation tools can only stimulate the pre-existing knowledge of readers.

1. Limitations of The Study

- Reading comprehension is a highly abstract and purely cognitive procedure that requires more attention on the part of neurolinguistics. This skill is still measured the traditional way, in which the testees are requested to take reading comprehension tests to assess their performance. This restrained the researcher, in which there was an absence of accurate testing tactics for gauging the influence of abstract factors on reading comprehension.

- This study was conducted a year post-COVID breakout. Institutions of higher education in Algeria were compelled to comply with the health restrictions imposed by the ministry of education to preclude the spread of the virus. Amongst these institutions, was the University of Yahia Fares, which followed a hybrid style of instruction. Students at this university would receive in person courses alternately. That is, students would go to university for an entire week and take a two weeks' break to enable other cohorts from having their own share of the in-class schooling. Consequently, students were not available all the time as they had other classes and assignments, and teachers had a small time span to work with so it was beyond their capacity to allow taking up some of their classes time to conduct the required tests. Additionally, most students were reluctant to taking part in the tests of this research due to the burnout they experienced under such times.

2. Suggestions for Further Research

- Reading comprehension and schema theory are intricate and highly abstract processes that require more attention on the part of sociolinguists. More modern tools are ought to be employed in order to help detect how they overlap and effect one another. Additionally, it is high time researcher dropped the traditional way of assessing the efficiency of reading comprehension and discover more advanced and accurate strategies to explore the various underlying processes that enable reading comprehension.

- Linguists and researchers in the area of English teaching and learning, do recognize the significance of content schemata in handling reading comprehension tasks efficiently, as well as its major influence on other language skills. However, the produced literature in this area of study centers on investigating the influence of cultural content schema on L2 reading comprehension. This cannot be denied, but even individuals with homogenous sociocultural backgrounds can have different understandings of the same text due to the contrastive nature

of their content schemata. In this respect, more research is required to recognize the uniqueness of the content schemata of every individual by juxtaposing the schematic content knowledge of people who have a more or less identical sociocultural background.

- Content schema is a mental structure that is conceived as a result of individuals' interaction with the outside world. In this research we adopted the Gernsbacher's Structure Building Framework (SBF), which provided a framework on how schemata are forged and modified. We urge researchers to consider a third option, which is the compression or oppression of existing schemata. The data collected by means of this study showed that some schemata have some minor flaws; however, there can be flaws that are reluctant to being corrected through mild or major alteration. Therefore, there should be a suppression of the severely defected schema in order to allow for the establishment of an intact replacement.

3. Recommendations for Teachers

- The heterogeneous nature of the background knowledge of learners result in distinct interpretations of the same text. In this regard, the comprehension of learners is heavily influenced by their pre-established content schemata and cognitive structures in general. Consequently, students will exert various interpretations despite operating on an identical text. Teachers are invited to welcome the idiosyncrasy of learners by acknowledging the interpretations that do not necessarily contend with the logic of the lesson but with the tokens of the teacher.

- Reading comprehension is a skill that feeds on the schemata of readers in order to attain comprehension. Undoubtedly, texts play a significant role in stimulating the prior knowledge of readers yet they do not determine the course of comprehension. Readers draw on their content schemata in order to make use of textual materials. In this respect, teachers should focus on forging the requisite content schemata prior to putting the reading comprehension skill of learners to the test. Even after constructing the requisite mental structures, it is crucial to verify that the schemata developed by readers align with the objectives of the lesson.

- Possessing the appropriate content schema is vital for comprehending texts. However, readers are prone to conjuring up different schematic knowledge to the target one if the cues installed in a text are not thought through. Texts should be strategically cued to tap on the adequate mental structures. In addition to that, reading comprehension questions should stick to topics that are strictly related to the activated schemata. Including questions that target a distinct schema are most likely going to confuse learners and minimize their chances of answering correctly even if the subject of the question is deemed as “easy”.

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APPENDICES

Appendix A: The Preliminary Test

Dear ……., you are kindly requested to read the text then follow the instructions below

Review: 'Pride and Prejudice and Zombies'; More Tea, Dear?

It is a truth universally acknowledged that, in order for zombies and zombie films to survive, they need brains, brains, brains.

In "Pride and Prejudice and Zombies," a character claiming to be Elizabeth Bennet (Lily James), uses swords and other deadly blades, fires guns and occasionally flashes a leg in order to crush a zombie's head. Battling the undead keeps her, friends and family safe from the flesh-eating creatures, but the character has been so radically transformed from the original one in Austen's book, "Pride and Prejudice".

The movie is adapted from the 2009 book by Seth Grahame-Smith, who hit commercial pay dirt with a catchy title and the fusion of two ridiculously opposed characters: Austen and zombies. Mr. Grahame-Smith added a zombie apocalypse to the Bennet family concerns, by topping the long talks about balls, romantic prospects and the uncertain future of its five unmarried daughters with dialogues about human brains scooped out like "pumpkin seeds from the Halloween jack o' lantern."

The zombification of Austen's material is frequently funny and sometimes clever, but the film stumbles hard when it loses sight of just how ridiculous it is...

Description of the text: This text is a critique of the Pride and Prejudice and Zombies movie. The movie is based on Jane Austin's book "Pride and Prejudice" but with a little bit of a, twist, zombies. **1.**The text starts with an introduction, **2.** then describes some scenes that took place in the movie. **3.** The following paragraph talks about the idea of the movie and how it differs from the original plot. **4**. The text then ends in the critic's, who is the writer of this text, honest opinion of the movie.

Underline the words you find difficult in the text.

Answer the following questions with "yes" or "no";

Have you read the original book of Pride and Prejudice? …

Have you read a summary of the book Pride and Prejudice? …

Have you tackled the plot of the book Pride and Prejudice in literature class? …

Did the information you received during literature course helped you understand the text in a better way?...

Have you watched the movie of Pride and Prejudice and Zombies? …

Have you ever watched a movie about Zombies? …

Do you have information about Halloween? …

Could you recognize what a pumpkin is? …

Could you recognize what "Halloween jack o' lantern" is?

10 If so, can you describe a "Halloween jack o' lantern"?

Did the description of the text help you understand the text better? …

Have you dealt with the book "Pride and Prejudice", or the plot of the book "Pride and Prejudice" more than once, either during literature class or independently? …

Copy the words you have underlined in the text (the words you found difficult), copy them into the table below, then tick the relevant column.

Words	**The word is unfamiliar/ I have never seen it before**	**The word is unfamiliar but I could guess the meaning based on my knowledge of the topic**	**The word is familiar but I could not guess what the writer is trying to say because I do not know much about the topic**

Appendix B: Questionnaire

Dear student,

You are kindly invited to participate in this questionnaire as part of a research study about the influence of prior knowledge on EFL learners reading comprehension skill.

This questionnaire is completely anonymous. Do not write your name on the questionnaire. Your answers will be used for pure research purposes and information provided by you will be destroyed by the end of the study.

Answering incorrectly to any of the questions will not affect your grades at any module. However, inaccurate answers can and will affect the results of the study. Therefore, you are kindly requested to be as diligent and accurate as possible while completing the questionnaire regardless of whether your answers are correct or incorrect.

You are kindly requested to follow the instructions below.

Tick the answer that best describes you

Have you ever taken any extra courses taught in English?

☐ Yes ☐ No

Are you taking any extra courses taught in English?

☐ Yes ☐ No

Do you often read (article, blogs, newspapers, …etc.) in English?

☐ Yes ☐ No

Do you often listen to content (podcasts, music, audio books …etc.) produced in English?

☐ Yes ☐ No

Do you often watch content (videos, movies, series, … etc.) produced in English?

☐ Yes ☐ No

Tick the correct answer based on the information you have about the book "Pride and Prejudice".

What is the relationship between the statement "It is a truth universally acknowledged", and the book "Pride and Prejudice" by Jane Austin?

- There is no relationship between the mentioned statement and the book.

- Jane Austin started her book “Pride and Prejudice” with the mentioned statement.
- This statement is often used by the female protagonist of the book, Elizabeth Bennet.
- I do not know because I have not read the book.
- I do not know because I was not present or attentive during literature class when this book was tackled.

What was the perspective of the female protagonist, Elizabeth Bennet, on marriage?

- She had a strong desire to get married.
- She did not have any desire to get married.
- She made the decision of only getting married to someone she loves.
- I do not know because I have not read the book.
- I do not know because I was not present or attentive during literature class when this book was tackled.

How many siblings did the female protagonist, Elizabeth, have?

- Six sisters and one brother.
- Five sisters in addition to one half-sister.
- Four sisters.
- I do not know because I have not read the book.
- I do not know because I was not present or attentive during literature class when this book was tackled.

How did Elizabeth feel about the male protagonist, Mr. Darcy?

- She fell in love with him once she saw him.
- She hated him at first but fell in love with him after getting to know him.
- She never loved him because he was arrogant.
- I do not know because I have not read the book.
- I do not know because I was not present or attentive during literature class when this book was tackled.

How was the mother of Elizabeth, Mrs. Bennet, described in the book?

- Mrs. Bennet was described as an extremely intelligent lady.

- Mrs. Bennet was described as a lady who loved gossiping.
- Mrs. Bennet was described as a lady who did not talk a lot.
- I do not know because I have not read the book.
- I do not know because I was not present or attentive during literature class when this book was tackled.

How was the father of Elizabeth, Mr. Bennet, described in the book?

- Mr. Bennet was described as a man who made sure his daughters marry wealthy men.
- Mr. Bennet was described as an intelligent and sarcastic man.
- Mr. Bennet was described as a very sociable man who had many friends.
- I do not know because I have not read the book.
- I do not know because I was not present or attentive during literature class when this book was tackled.

What literary movement does the book "Pride and Prejudice" belong to?

- Realism.
- Naturalism.
- Romanticism.
- "Pride and Prejudice" does not belong to any literary movement.
- I do not know because I was not present or attentive during literature class when this book was tackled.

Appendix C: Reading Comprehension Test

Dear student, you are kindly requested to follow the instructions below

Activity one: Read the short text below then answer the questions that follow;

As the lingua franca of the twentieth century, English is one of the most important means for acquiring access of Anglo-American technology. As a result, there is a huge need to learn English in non-English-speaking countries. Learning other languages besides your mother tongue makes you either bilingual or multilingual.

Explain what is a lingua franca using your own words?

……..……
…….

What does a mother tongue mean?

……..……
……

What does bilingual bilingualism mean?

……..……
……

What does multilingual/ multilingualism mean?

……..……
……

Activity Two:

A. Fill in the gaps so that the text can make more sense;

There is no one best strategy for learning EFL/ ESL. Every learner has a unique learning style and hence requires a unique learning strategy. Learning an L2 could be difficult, but never a …… impossible. Some learners prefer to learn English in English speaking countries, so they can be able to practice the language regularly. Non-native speakers of English are, in most cases, required to submit a…... or ….. test scores as a proof of their proficiency if they want to study oversees. Even some non-English speaking countries compel students to have a

certain mastery level in English. Whereas ESL teachers need …… or …….. certificates to prove their ability to teach EFL or ESL in most countries.

B. Match words in row (A) with their corresponding definitions from row (B);

A	**B**
EFL	the study of language in its social context
ESL	a theory of learning: behaviors are learned through interaction with the environment
Layman	English as a Foreign Language
L2	English as a Second Language
Behaviorism	a non-specialist
Sociolinguistics	Second Language

<u>Activity Five:</u> Based on the text you have filled in in activity two. Do you agree or disagree with the following statements? Explain.

Learning English in a non-English speaking country is difficult.

……
……
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……

Learning English in a non-English speaking country has become easier due to technology.

……
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Developing a native-like English language proficiency as a non-native speaker in a non-English speaking country has become easier with the emergence of networking apps.

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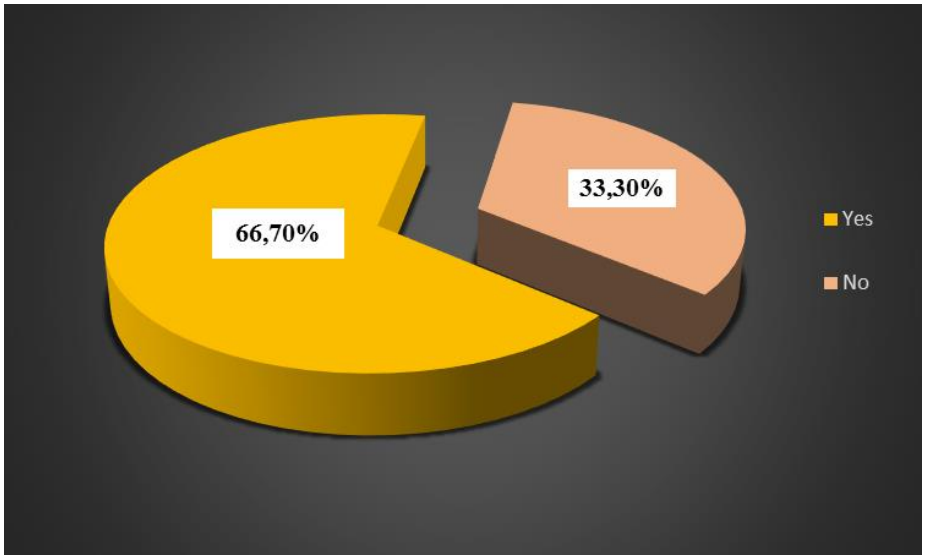
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Appendix D: Results of the Preliminary Test

Results of the Text Questions

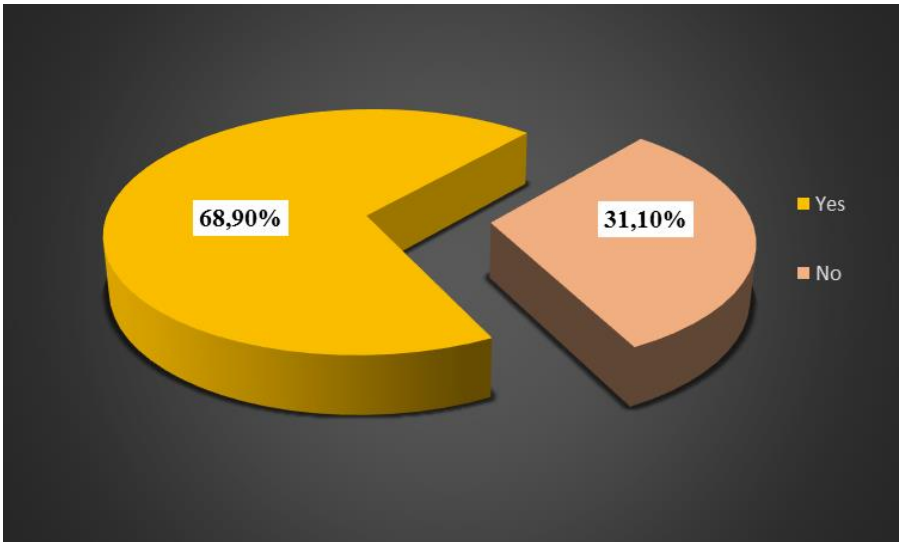
Question 1: Have you read the book of "Pride and Prejudice"?

have you read pride and prejudice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	15	33,3	33,3	33,3
	no	30	66,7	66,7	100,0
	Total	45	100,0	100,0	



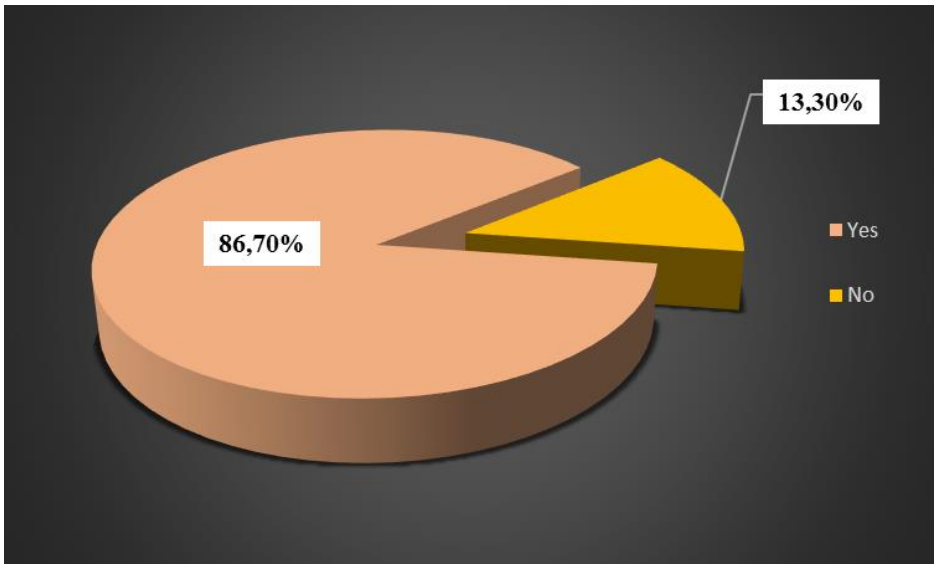
Question 2: Have you read a summary of the book of "Pride and Prejudice"?

have you read a summary of the book Pride and Prejudice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	31	68,9	68,9	68,9
	no	14	31,1	31,1	100,0
	Total	45	100,0	100,0	



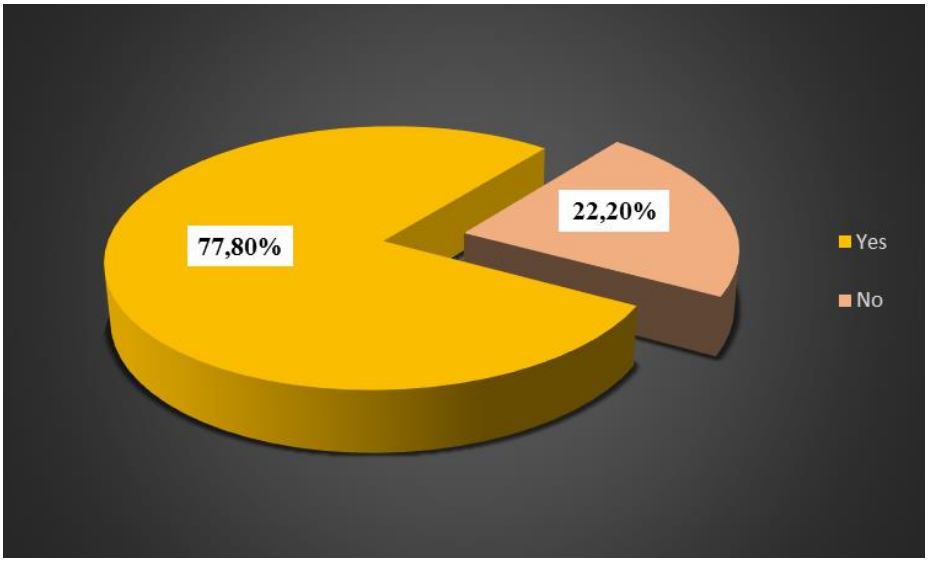
Question 3: Have you tackled the plot of the book "Pride and Prejudice" in literature module?

have you tackled the plot of the book pride and prejudice in literature model					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	39	86,7	86,7	86,7
	no	6	13,3	13,3	100,0
	Total	45	100,0	100,0	



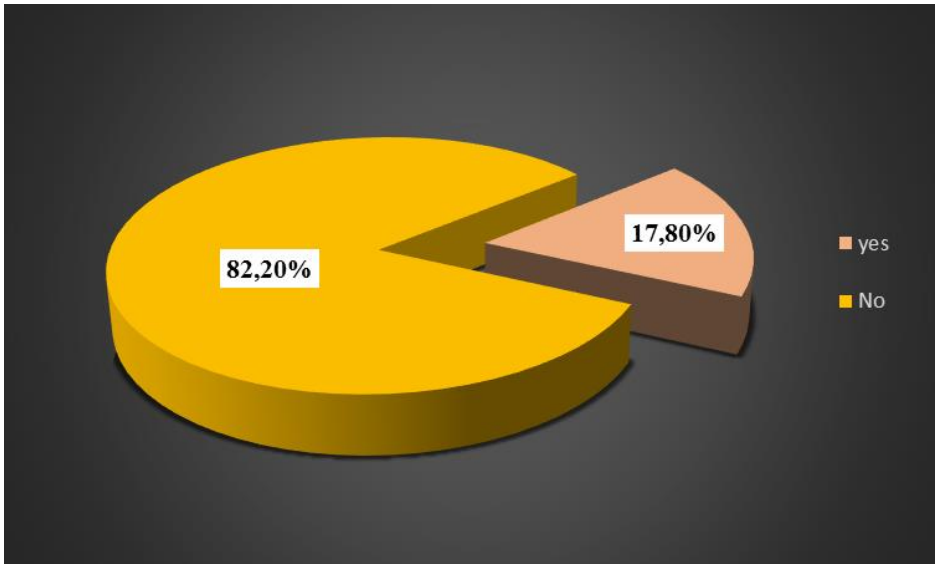
Question 4: Did the information you received on "Pride and Prejudice" during literature course help you understand the test in a better way?

did the information you received on Pride and Prejudice during literature course help you understand the text in a better way					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	35	77,8	77,8	77,8
	no	10	22,2	22,2	100,0
	Total	45	100,0	100,0	



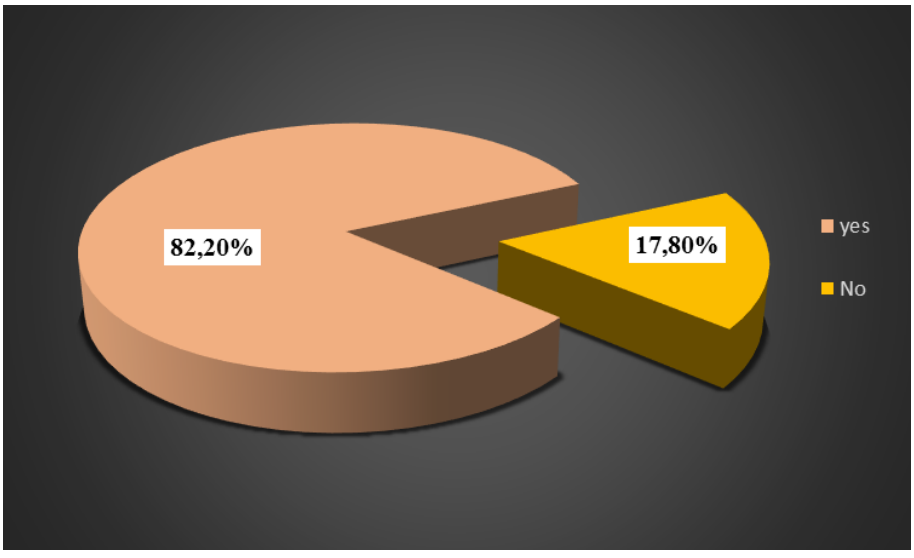
Question 5: Have you watched the movie of "Pride and Prejudice and Zombies"?

Have you watched the movie of Pride and Prejudice and Zombies					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	8	17,8	17,8	17,8
	no	37	82,2	82,2	100,0
	Total	45	100,0	100,0	



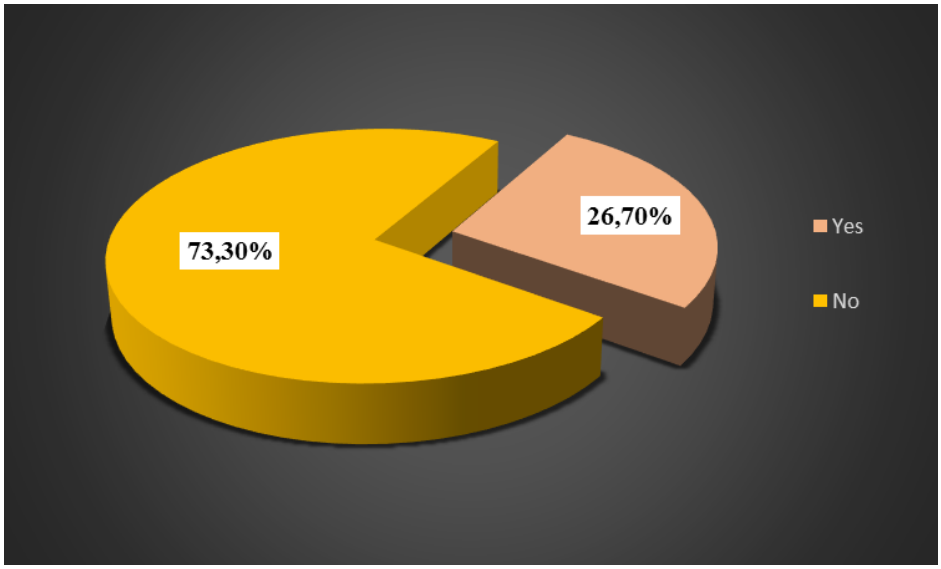
Question 5: Have you ever watched a movie about zombies?

Have you ever watched a movie about Zombies					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	37	82,2	82,2	82,2
	no	8	17,8	17,8	100,0
	Total	45	100,0	100,0	



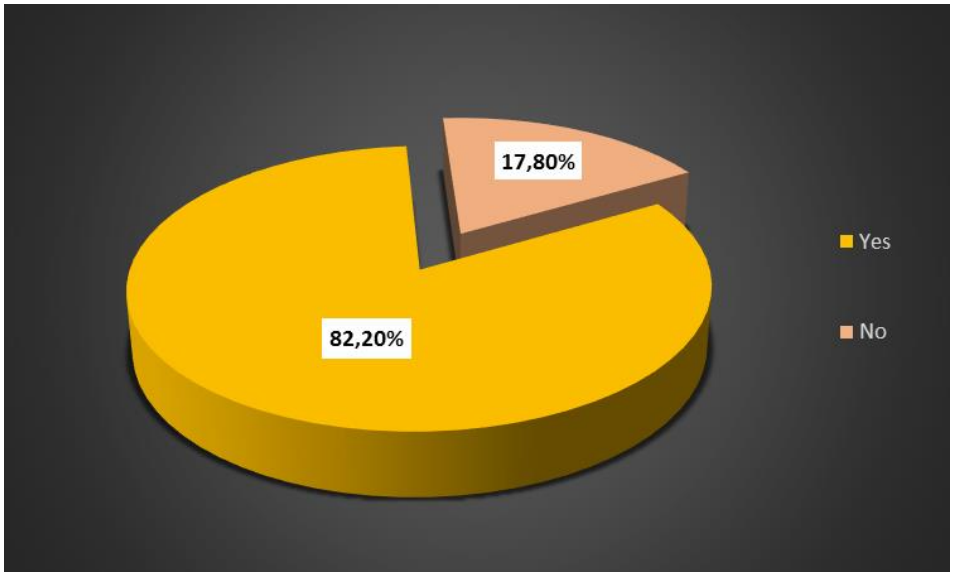
Question 7: Do you have some information about Halloween?

Do you have some information about Halloween					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	33	73,3	73,3	73,3
	no	12	26,7	26,7	100,0
	Total	45	100,0	100,0	



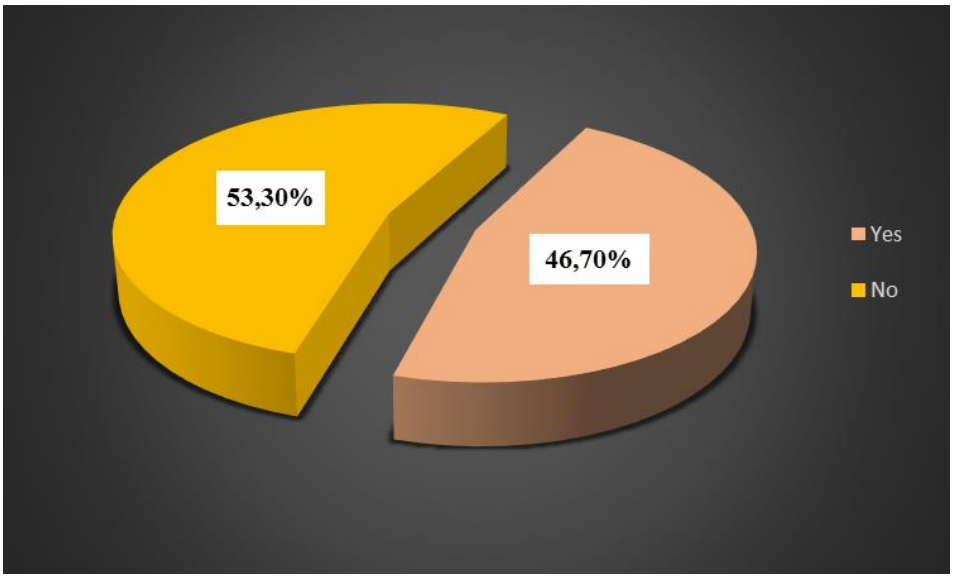
Question 8: Could you recognize what a pumpkin is?

Could you recognize what a pumpkin is					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	37	82,2	82,2	82,2
	no	8	17,8	17,8	100,0
	Total	45	100,0	100,0	



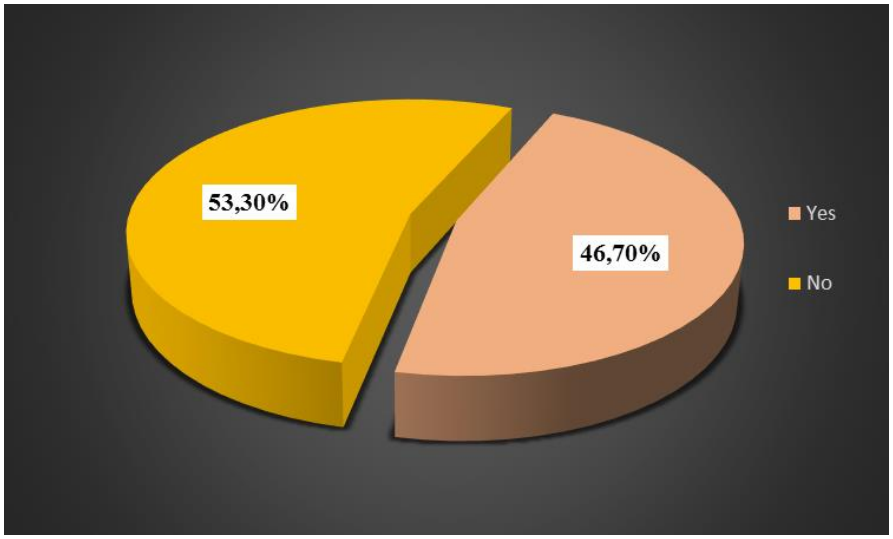
Question 9: Could you recognize what "Halloween jack o' lantern" is?

Could you recognize what "Halloween jack o' lantern" is					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	21	46,7	46,7	46,7
	no	24	53,3	53,3	100,0
	Total	45	100,0	100,0	

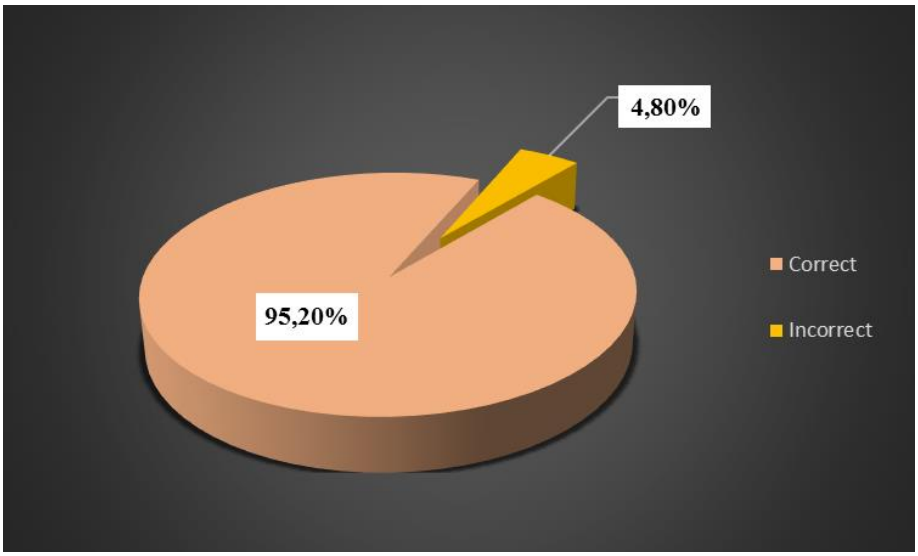


Question 10: If so, can you describe a "Halloween jack o' lantern"?

IIf so, can you describe a "Halloween Jack o' lantern"					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	21	46,7	46,7	46,7
	no	24	53,3	53,3	100,0
	Total	45	100,0	100,0	

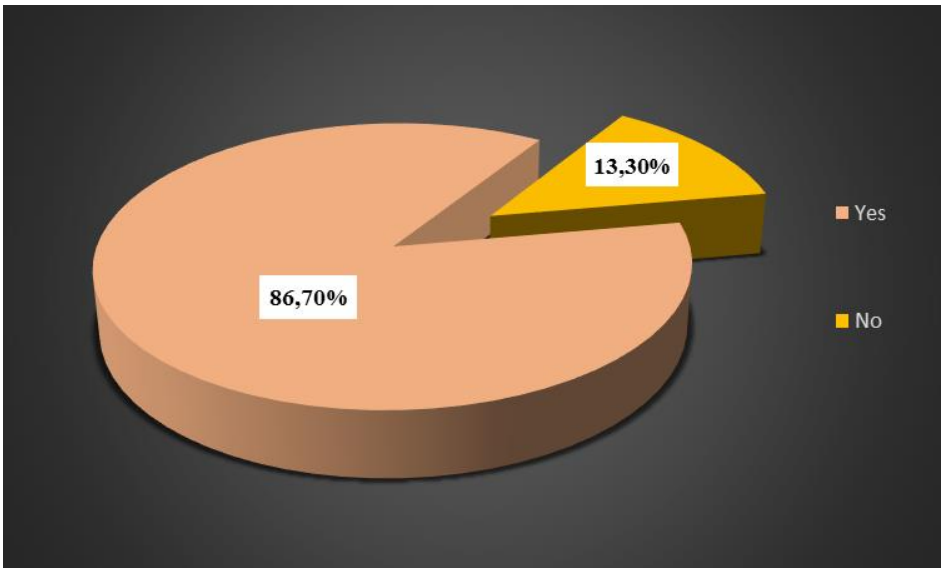


If so, can you describe a "Halloween Jack o' lantern"					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Correct	20	95,2	95,2	95,2
	Incorrect	1	4,8	4,8	100,0
	Total	21	100,0	100,0	



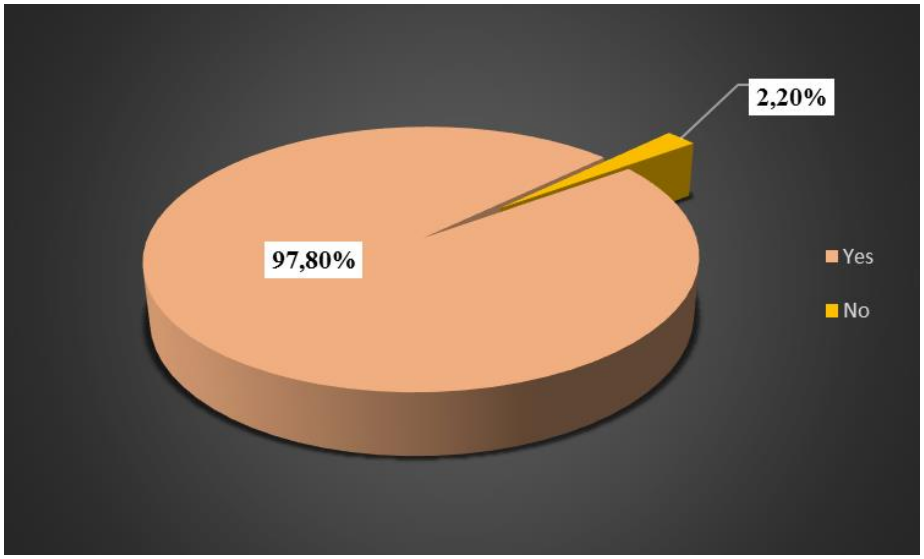
Question 11: Did the description of the text help you understand the text better?

Did the description of the text help you understand the text better					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	39	86,7	86,7	86,7
	no	6	13,3	13,3	100,0
	Total	45	100,0	100,0	



Question 12: Have you dealt with the book "Pride and Prejudice", or the plot of the book "Pride and Prejudice" more than once during literature class of independently?

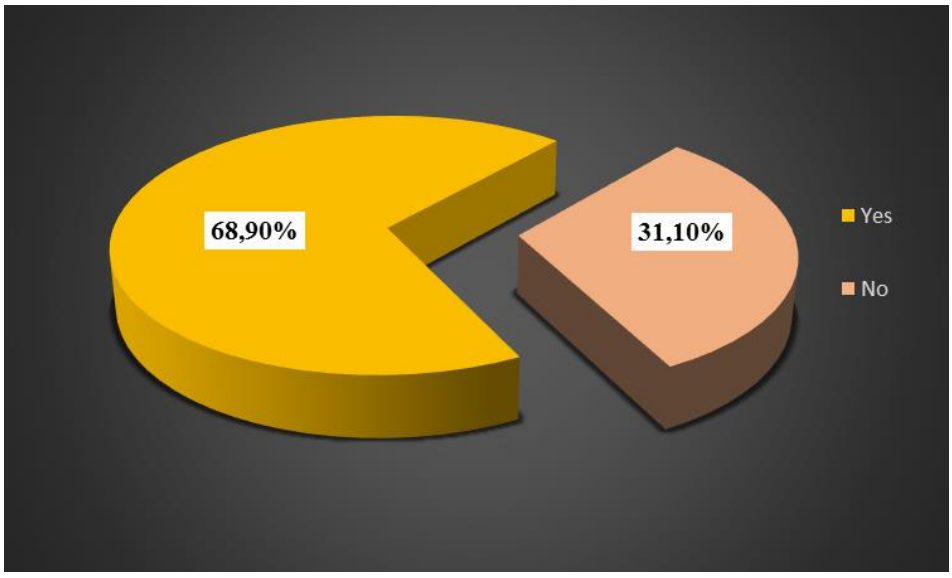
Have you dealt with the book "Pride and Prejudice", or the plot of the book "Pride and Prejudice" more than once during literature class or independently					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	44	97,8	97,8	97,8
	no	1	2,2	2,2	100,0
	Total	45	100,0	100,0	



Question 13: Have you dealt with the book "Pride and Prejudice", or the plot of the book "Pride and Prejudice" more than two times during literature class or individually?

Have you dealt with the book "Pride and Prejudice", or the plot of the book "Pride and Prejudice" more than two times during literature class or independently

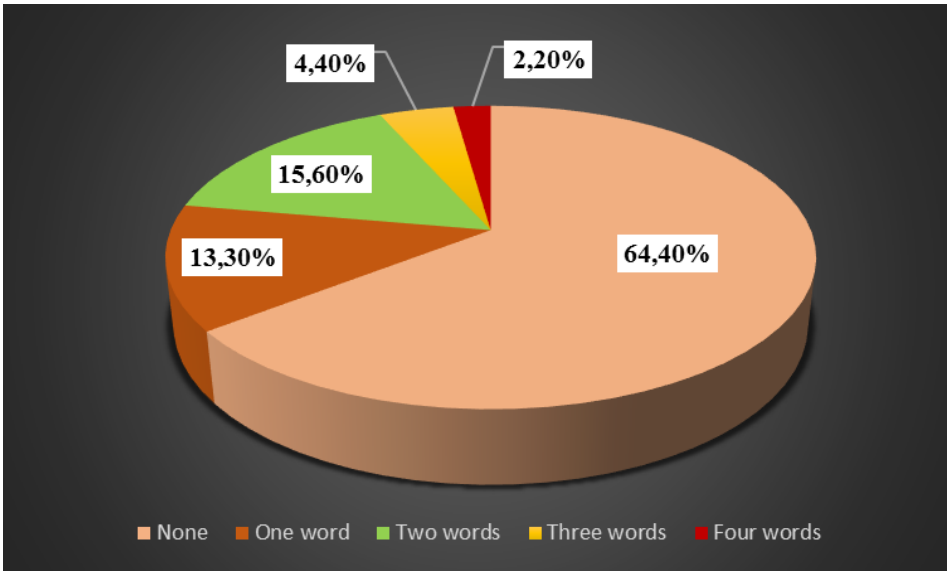
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	31	68,9	68,9	68,9
	no	14	31,1	31,1	100,0
	Total	45	100,0	100,0	



Section Two: The Table

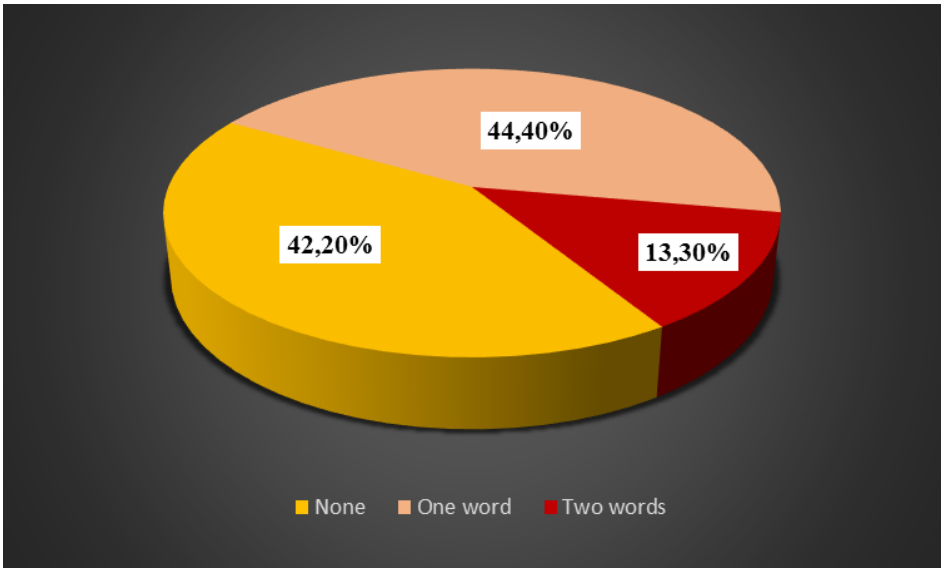
Column 1: The word is unfamiliar/ I have never seen it before?

The word is unfamiliar/ I have never seen it before					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	29	64,4	64,4	64,4
	One word	6	13,3	13,3	77,8
	Two words	7	15,6	15,6	93,3
	Three words	2	4,4	4,4	97,8
	Four words	1	2,2	2,2	100,0
	Total	45	100,0	100,0	



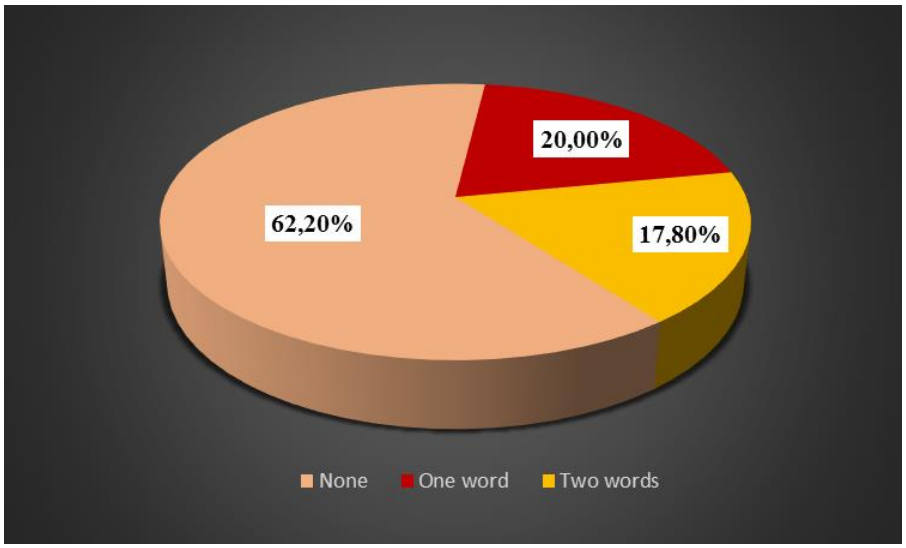
Column 2: The word is unfamiliar but I could guess the meanings based on my knowledge of the topic.

The word is unfamiliar but I could guess the meaning based on my knowledge of the topic					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	19	42,2	42,2	42,2
	One words	20	44,4	44,4	86,7
	Two words	6	13,3	13,3	100,0
	Total	45	100,0	100,0	



Column 3: The word is familiar but I could not identify the intended meaning of the writer because I do not know much about the topic.

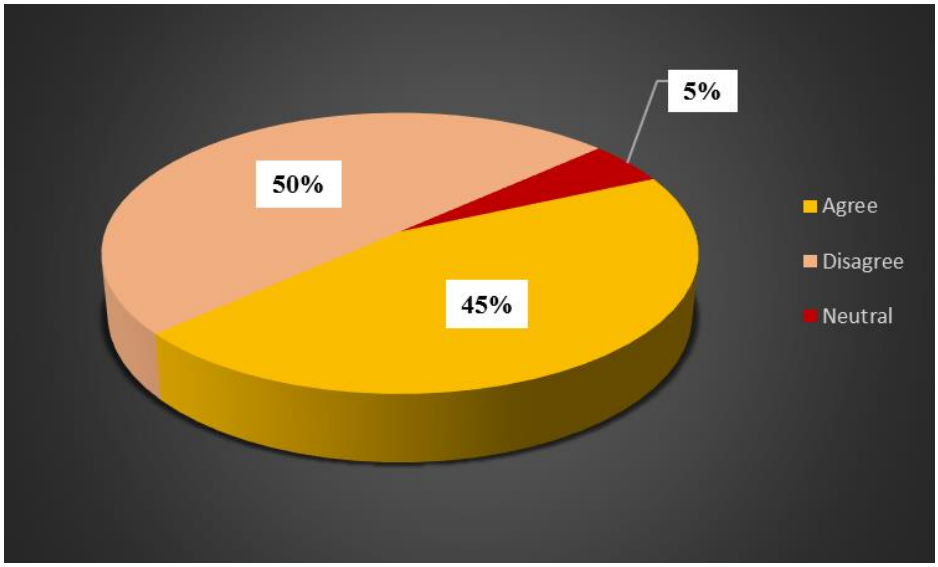
The word is familiar but I could not identify the intended meaning of the writer because I do not know much about the topic					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	28	62,2	62,2	62,2
	One word	9	20,0	20,0	82,2
	Two words	8	17,8	17,8	100,0
	Total	45	100,0	100,0	



Appendix E: Results of Activity Three in the Reading Comprehension Test

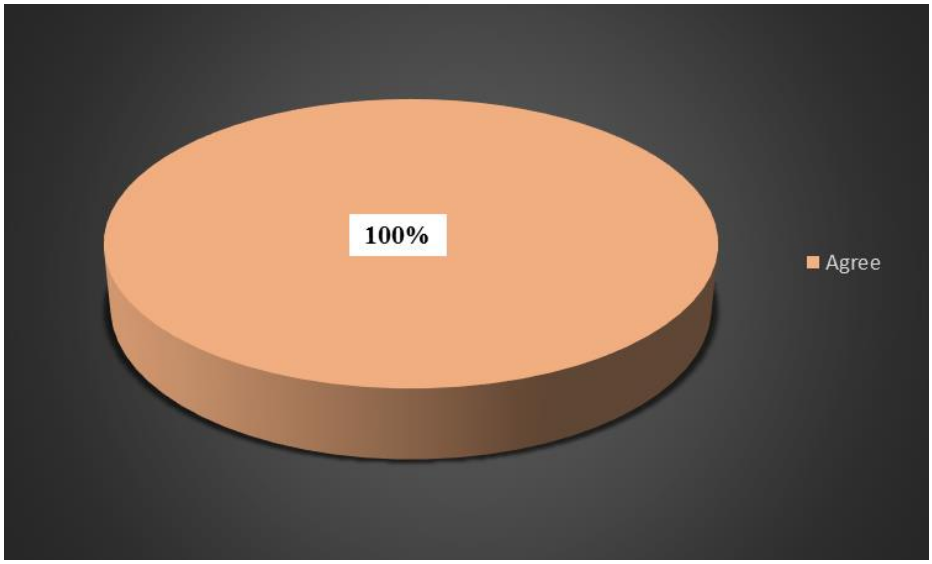
Statement 1:

Learning English in a non-English speaking country is difficult					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	9	45,0	45,0	45,0
	Disagree	10	50,0	50,0	95,0
	Neutral	1	5,0	5,0	100,0
	Total	20	100,0	100,0	



Statement 2:

Learning English in a non-English speaking country has become easier due to technology					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	20	100,0	100,0	100,0



Statement 3:

Developing a near native profeciency in a non-English speaking country has become easier with the emergence of networking apps					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	19	95,0	95,0	95,0
	Neutral	1	5,0	5,0	100,0
	Total	20	100,0	100,0	

