UNIVERSIDAD CATÓLICA DE LA SANTÍSIMA CONCEPCIÓN

FACULTAD DE EDUCACIÓN

PEDAGOGÍA EN EDUCACIÓN MEDIA EN INGLÉS

"Effects of valence on vocabulary knowledge in second language learners"

Seminario de Investigación para optar al Grado Académico de

Licenciado en Educación

PROFESOR GUÍA: Dr. Roberto Ferreira Campos.

ESTUDIANTES: Natalia Cuevas Pérez

Nicolás Ortíz Matamala

Felipe Mejía Pérez

Farah Sufán Martínez

CONCEPCIÓN, SEPTIEMBRE 2018

Resumen

El estudio de las emociones y sus dimensiones es particularmente relevante en el campo educacional, ya que estas tienen una íntima relación con los procesos cognitivos que se llevan a cabo durante el aprendizaje de un segundo idioma (Swain, 2011). Las ideas obtenidas a partir de este conocimiento podrían ayudar a mejorar la comprensión y teorización acerca de mejores metodologías y estrategias del aprendizaje de vocabulario en futuras investigaciones. Para este estudio, nuestro enfoque comprendió una revisión de estudios previos relacionados a la neurociencia y a la psicología con el fin de evidenciar si valencia (dimensión emocional) ejerce algún efecto en el grado del conocimiento de vocabulario de aprendices de un segundo idioma. Por este motivo, se aplicó una encuesta a estudiantes del idioma inglés, para medir valores de valencia en contraste con la profundidad del conocimiento de vocabulario. Los resultados indicaron que, en contraste con la evidencia científica de estudios previos (Kousta, 2009), las palabras cargadas negativamente son mejor o más conocidas que las palabras cargadas positivamente o que las palabras neutras. Sin embargo, a su vez, los resultados indican que en general las palabras cargadas emocionalmente son mejor conocidas en comparación con palabras concretas y abstractas. Por lo tanto, de los hallazgos podemos concluir que existen ventajas para los profesores del idioma inglés al seleccionar palabras emocionalmente balanceadas por sobre palabras neutras para fomentar la retención de palabras en sus estudiantes, además de servir como apoyo al desarrollar estrategias para el aprendizaje de vocabulario.

Abstract

The study of emotions is particularly relevant in the educational field as emotions show to have an intimate relationship with cognition in second language learning (Swain, 2011). Under the scope of current findings from fields such as neuroscience, psychology, and cognitive theories in general, it was decided to conduct a research study to find out whether valence (a particular dimension of emotion) affected to some extend the degree to which second language learners know vocabulary. Our approach involved analysis of values from the ANEW norms for English words (Bradley & Lang, 1999) and the Lexicon Project (Balota et al., 2007). An online survey which contained a selection of 100 words was applied to measure valence values in contrast with participants' word knowledge. 105 English language learners from the English teaching major of Universidad Católica de la Santísima Concepción voluntarily filled in the survey self-assessing their word knowledge. Results indicated that in general, emotion words were better known than concrete and abstract words; however, in contrast with previous scientific research (Kousta, 2009), negatively charged words were better known than positively charged words. This particularity indicates some limitations of the study, as well as a non-representative profile of the participants to account for second language learners. However, insights drawn can help improve understanding and theorization about better methodology and strategies of vocabulary learning and teaching in future research, with major focus on the selection of emotionally balanced words rather than neutral words as to foster these processes."

Keywords: emotion, cognition, emotion words, valence, vocabulary knowledge.

Table of contents

List of tables

List of figures

Acknowledgments

We would like to express our gratitude to the following people for their priceless contribution that helped us in the completion of this study:

To our families and friends,

Dr. Roberto Ferreira,

Lilian Hernandez.

Chapter 1 - The study of Emotions: Emotions and Language

1.1 Introduction

A cornerstone for the progress of fields of study such as psychological, linguistic and neuroscience research has been the study of emotions, since it represents our interaction with the world. Accordingly, knowledge about the role of emotions in language learning has undergone several changes across history. Despite the fact that classrooms feature an emotional nature as it involves social beings within, the social awareness that exists in this context regarding the concept of emotion is rather vague. Nevertheless, unveiling the importance of emotions in human development and its implications in teaching-learning experiences has become a challenge not only for researchers, but also for educators all over the world in order to enhance and improve their teaching practices.

In the light of the previous statements; it is of our concern as teachers of English to approach emotions as a central part of cognition in agreement with related theories from the mentioned fields as we attempt to convey the features of emotions and the process of learning a second language. That being said, numerous studies have focused their attention on categorizing distinctions between words that affect some of our cognitive processes and memory. Emotion words are then categorized along with abstract words, which are the contrary to what is understood as concrete words in different languages. For this research in particular, we highlight and analyze the emotional dimension of words in what is known as valence, which in brief terms represents a value that allows researchers to determine the degree of pleasure/displeasure contained in an emotion word for the case of a particular learner.

With this in mind, this study focuses on investigating a concrete relationship between emotions and language, by defining both terms for the purpose of describing the particular behavioral process known as learning. Most importantly, our research draws insight on understanding the association that exists between word valence and how well students know a word in a second language, which allows us to depict interesting conclusions.

1.2 What is emotion?

Even though emotion has been extensively researched due to its multidisciplinary implications, to date there is not a single fixed definition for this particular concept. In an attempt to come up with a conventional terminology, Kleinginna and Kleinginna (1981) reviewed 92 alleged definitions and 9 skeptical statements regarding emotion and conveyed the following:

"Emotions describe a complex set of interactions between subjective and objective variables that are mediated by neural and hormonal systems, which can (a) give rise to affective experiences of emotional valence (pleasure-displeasure) and emotional arousal (high-low activation/calming-arousing); (b) generate cognitive processes such as emotionally relevant perceptual affect, appraisals, labeling processes; (c) activate widespread psychological and physiological changes to the arousing conditions; and (d) motivate behavior that is often but not always expressive, goal-directed and adaptive." (p. 355)

However, C. Tyng et al. (2017) states that this provided definition does not cater for some important aspects of the emotional system, which mainly deal with the origin of subjective experienced feelings and how they influence personality. Hence, Panksepp (1998) suggested:

"Emotions are the psychoneural processes that are influential in controlling the vigor and patterning of actions in the dynamic flow of intense behavioral interchanges between animals as well as with certain objects that are important for survival. Hence, each emotion has a characteristic "feeling tone" that is especially important in encoding the intrinsic values of these interactions, depending on their likelihood of either promoting or hindering survival (both in the immediate "personal" and long-term "reproductive" sense). Subjective experiential-feelings arise from the interactions of various emotional systems with the fundamental brain substrates of "the self," that is important in encoding new information as well as retrieving information on subsequent events and allowing individuals efficiently to generalize new events and make decisions."

Taking these definitions into account by comparing and contrasting the core of their theorization; there is an observable complementary nature within the process of emotion. That is to say that, not only emotion elicits a set of interactions that are regulated by our nervous system, but also that they are conditioned by survival instincts which have important weighting in individual decision making. Thus, for the purpose of this research; the theoretical construct of emotion will be determined by the previous definitions provided by Kleinginna and Kleinginna (1981) and Panksepp (1998), with implications on human nervous system and decision making accordingly.

1.2.1 Subjective terms of emotion

Along with emotion, there are other subjective terms that are commonly used in neuroscience. These are defined as moods, feelings, affects and drives. C. Tyng et al. (2017) proposes that these terms share a specific trait; their intrinsic valence (Russell, 1980), which ranges within a spectrum of unpleasant to pleasant values. As with emotion, the concepts previously alluded have several definitions that have evolved throughout time on behalf of the development of technologies and, of course, extensive research.

Just as an example to illustrate the hardship of conveying meaning in this area of investigation, Dr. Richard Ketai (1975) tried to depict this issue revolving the concepts of affect, mood, emotion and feelings a few couple of decades ago. Even then, the author showcased that there were some inconsistencies in the use of these terms that could potentially lead to miscommunication when dealing with emotions. In summary, he concluded that a) affect and mood are most frequently used in scientific literature, psychological evaluations and mental status examinations. Additionally, these terms do not share the same meaning, as affect entails a high degree of immediacy and intensity of feelings (affective sensations); whereas, moods are mental states that are less prone to change over a specific period of time. b) The term “emotion”, used in scientific context, elicits a greater involvement of the human body or physiology than the latter words mentioned.

It is relevant then, to emphasize these inferences as they, at some degree, have been sustained through time. Panksepp (2005), for instance, uses the concept "emotion" as a superordinate term that covers not only physiological, but also affective, cognitive, behavioral and expressive changes. Another similarity between the concept constructs of these authors, is that moods are continued to be seen as longer states of emotion; yet, this author adds that these moods are characterized in a range that goes from positive to negative. Feelings, on the other hand, are no longer outlined as affective sensations; but they are described as mental states that have gone through either a positive or negative experience (valence) which accordingly trigger a response from the autonomic nervous system (ANS) in order to cater for a homeostatic need. In addition to these concepts, a drive is described as a programmed action that is responsible for the satisfaction of basic and instinctual needs (Panksepp, 1998).

Thus far, the key concepts involving emotion have been characterized mainly according to their function; nevertheless, their etiology has yet to be discussed. At this stage of the theorization, and for the purpose of this dissertation; it becomes relevant then to showcase why emotions elicit such variety of changes and responses.

1.2.2 Emotion, homeostasis and motivation

Emotion, in simple language, could be so far characterized as the main agent that regulates human behavior; however, what reason lies behind the course of action that an emotion takes when manifesting any type of conduct?

According to the American Psychological Association, homeostasis is the constancy or equilibrium of the internal conditions of the body (APA, 2018). Expressly, homeostasis is the ability of any living organism to keep the same internal conditions in defiance of any changes that could happen in its external surroundings. In this context, emotions are triggered in order to maintain or restore homeostatic balances or primary bodily states such as hunger or thirst, which are also called homeostatic drives (Panksepp, 1998). At this point, motivation plays a major role as it enables the course of action taken by emotions to fulfil our basic needs, aimed to acquire resources for survival (Montag & Panksepp, 2017).

However, this representation of the role of motivation is quite limited; as it is an agent that promotes multiple changes and results in different cognitive processes and behavior that go beyond maintaining our basic needs. For instance, as defined by Gardner et al. (1985), motivation is a combination of effort plus desire to achieve a goal plus favorable attitudes towards the goal to be accomplished. Additionally, Williams and Burden (1997), describe motivation as a state of cognitive and emotional arousal; a state which leads to a conscious decision to act and gives rise to a period of sustained intellectual and/or physical effort. Overall, the concept of motivation is given a weighted part in decision making, a cognitive process that is amalgamated with goal achievement. As well as emotions, motivation is a concept that is hard to accurately describe due to its multidisciplinary implications; as its complexity resides in its efforts to explain human behavior, a premise that cannot be approached from only one fixed perspective.

In terms of learning research, the study of emotion and motivation help to visualize the role of each theoretical construct. For example, studies report that positive emotions facilitate learning and contribute to academic achievement, being mediated by levels of self-motivation and satisfaction with learning materials (Um et al. 2012). Conversely, a study reported that negative-centered sate (confusion) improve learning because of attention on learning material lead to higher performance in cognitive tasks (D'Mello et al. 2013). Hence, motivated students who respond to their confusion seek new understanding by doing additional cognitive work (Tyng et al. 2017). It is discernible then, that motivational components entail towards goal achievement, which ultimately results in learning.

1.3 Emotions and language

The theoretical constructs presented up to this point indulge the overall association that emotions have with cognition and, ultimately, with human behavior. As stated by Lindquist et al. (2016), humans have a unique capacity to experience multiple and complex emotions. Likewise, people have the particular ability to communicate such experiences from one another by means of language. In furtherance of proper contextualization, humans as social beings, have ways of learning that involves not only their immanence and individuality; but also their collectiveness. That is to say that the individuals involve the usage of their emotions in order to engage in social interaction for learning experiences and survival. Hepach (2011) illustrates this perspective by claiming that emotion recognition is essential to engage in communication. The alluded evidence sets a new path for our investigation; as it focuses the study of emotions in our field of interest: language.

Lindquist et al. (2016) looked at some fields of research, such as neuroscience, psychology, linguistics, and anthropology; in order to establish a relationship between language and emotions. The authors claim that language is not just a translator tool to convert feelings into words; but language might actually shape the nature of those feelings. For that matter, their research falls under the scope of psychological constructionist approaches to emotion; which explicitly hypothesized that the words attributed to particular categories of emotion shape their meaning or affect. What is more, those affective states will result in emotion experiences and perceptions.

Along with the psychological constructionist theories, Lindquist et al. (2016) proposes a Conceptual Act Theory (CAT) which complements the previous construct by clearly accrediting a role for language in the construction of emotion, as language helps humans represent all categories of knowledge. It can be stated then, that language can help categorize emotions due to its communicational nature, which allows societies to convey meaning.

1.3.1 Emotion word representation

Once considered that language has an important role in the shaping of emotions; the question of how it manages to fulfill such a function raises. Research carried out by Robinson and Altarriba (2014) provided an answer to such query. By means of understanding how emotion words were processed; the authors made a distinction between different types of words. Firstly, words were categorized according to their physical referent, describing them either as concrete or abstract words. Simply put, concrete words represent real-world physical objects for which you have unequivocal imagery (e.g., “pen”, “car”, and “house”); in contrast, abstract words refer to mental notions, such as ideas or beliefs, with no clear mental image. (e.g., “love”, “anger”, “friendship”). As observable, it could be stated that emotions are a subcategory of abstract words; however, evidence suggested that both types of words were not processed in the same way (Altarriba et al, 1999, as cited in Altarriba, 2014). This second distinction called for emotion words to have its own category. Finally, with regards of their nature of provenance, additional research indicated that there was another variable that made repercussion when dealing with emotion words. Subsequently, emotion words are specifically referred to a given feeling (e.g., love, hate, joy, etc.); whilst, emotion-laden words (Altarriba and Bauer 2004; Altarriba and Canary 2004) are referred to events that may elicit a given feeling (e.g., gifts, war, blood, etc.).

Even though, it is beyond the scope of our research to discuss the ways each word category affects word processing, memory or any other cognitive process; it is relevant to mention certain evidence which results are intimately associated with the emotional traits of language. For instance, in recall tasks emotion words, both positive and negative, were found to have a processing advantage over abstract and concrete words (Atarriba and Bauer, 2004). Additionally, following the same line of investigation, concrete words are remembered better than abstract words. Furthermore, in studies involving bilinguals, participants tend to remember emotion and emotion-laden words better than neutral words across both the first and second language (Robinson and Altarriba, 2014). Consequently, results from research by Ferré et al. (2010) suggested that emotion words enhanced memory across languages. There are also studies (Kousta et al, 2009; Kuperman et al, 2014) which claim that emotion words have an advantage processing over neutral words (concrete and abstract); however, additional evidence concerning polarity ranges will be addressed in the following sections.

1.3.2 Emotional dimension of words

To understand how emotions affect the learning of a language, it is essential to recognize that words can be classified into more than one dimension. According to Barret (1998), Warriner (2013) and Hinojosa (2015), there are two main premises which sustain the unraveling of emotion theorization. On the one hand, the two-dimensional circumplex model (Russell, 1980) which claims that affective states are best represented as a circle in a bipolar space. In his research, Russell (1980) found out that words can be defined in some degrees of arousal and pleasure-displeasure. Therefore, from this research, two key concepts are described. Firstly, the dimension of valence which ranges from *pleasant to unpleasant*; and secondly, the dimension of arousal, which represents degrees of stimulation from *calming to exciting*. In addition to the previous mentioned research, there is a third dimension acknowledged by the line of research of Osgood, Suci, and Tannnenbaum's (1957) theory of emotion known as dominance. According to these authors, dominance refers to the range in which a word can express *weakness/submission* or *strength/dominance*.

As previously mentioned, there is another perspective which analyses emotion from a limited number of innate and universal affective states such as happiness, anger, sadness, fear, and discuss: the discrete-emotion theory (Ekman, 1992; Panksepp, 1998). Nonetheless, for the purpose of this research, the foundation of our theorization will be supported by the theoretical constructs which describes valence; as this variable is the main feature to be analyzed in the present study.

1.4 Valence

Throughout our literature review, valence has been characterized as one of the most important scientific concepts concerning emotion (Charland, 2005; Warriner, 2013). This claim is also sustained by Kuhlman (2016), who also adds that being aware of valence judgment is imperative in many theories of emotion; as most dimensional emotion constructs incorporate valence as its primal independent variable alongside arousal. It becomes crucial then, to understand the concept of valence and its influences in different areas of emotion and cognition research.

The term valence was first introduced by Lewin (1951), who used this term to refer to the forces that attract individuals to desirable objects and repel them from undesirable ones. Since then, according to Shuman et al. (2013), valence has been considerably extended, and even attributed to the characterization of emotions as positively or negatively valenced (for reviews, e.g., Solomon and Stone, 2002; Colombetti, 2005). However; depending on the disciplines advocated to the study of emotion, motivation and learning amongst others, researchers can also refer to this distinction of positive from negative with terms such as pleasantness, utility or liking/wanting. Overall, the importance of valence lies in its properness to describe feelings and transform subjective data into ratings which can help describe emotions; and thus, human behavior.

There are several factors that play key roles when conceptualizing valence. In appraisal theory, for instance, the criteria to judge valence is based upon pleasantness and goal conduciveness (e.g., Fridja et al. 1995). Yet, Shuman et al. (2013) reports that research by Scherer (2010) suggest that other components are accountable when judging valence such as power, self-congruence and moral goodness. These different views on valence, which depend on the context or discipline of each study can be clearly contrasted with the one-dimensional conceptualization of valence introduced at the beginning of this section.

1.4.1 Types of valence

As formerly illustrated, there are two main approaches that are able to describe the concept of valence. The one-dimensional valence, pulled from psychological theories that rates events from positive/pleasant to negative/unpleasant; and the multifaceted valence, which is a result of appraisal theory.

Multifaceted valence

In order to understand multifaceted valence, some insights of appraisal theory and the one-dimensional valenced must be addressed. In this sense, we firstly describe appraisal in the words of Leventhal and Scherer (1987), which propose appraisals can be processed consciously or unconsciously by different cognitive systems, and that they consist of a subjective evaluation of a real, recalled or fictitious event or situation.

This idea of events or situations evoking emotions has sustained the foundations of the appraisal theory, which suggest emotions emerge as a consequence of events being appraised on multiple criteria. That is to say that there are several variables that influence the manner in which humans evaluate each experience. The criteria is used to determine the relevance or implications of an event. Regarding its relevance, the event might be appraised considering factors such as novelty, pleasantness, and goal relevance for the individual, whereas implications are appraised with evaluations of the event considering causal attribution, outcome probability, discrepancy from expectations, goal/need conduciveness, and urgency (Shuman et al, 2013). Scherer (2010) proposed that the outcomes of additional types of appraisals can also be regarded as different types of valence.

Consequently, in order to illustrate how the concept of multifaceted valence works with appraisal theory, Shuman et al. (2013) described five types of valence which depict such theorization.

A first type of valence relates pleasantness with beauty appraisal in terms of the hedonic experience of a situation (Voss et al, 2003). A common example of pleasurable experiences would be eating good food; however, as in any situation, conflicting pleasantness appraisals are possible. For instance, although eating good food can be a lovely experience it could become an issue if one gains weight. On another note, homeostatic needs can also set the boundaries of what is pleasurable. For example, cold water may seem refreshing when one is hot (Cabanac, 1979). All around, any experience can be judged as more or less pleasurable regarding univariable notions of valence (e.g., Cacioppo and Berntson, 1994).

A second type of valence is Goal conduciveness. Its determinant is the efficiency of a situation to satisfy needs or achieve goals that go beyond basic homeostatic needs. For instance, in natural reward learning, pleasure experiences may trigger the learning of stimulus, followed by the attribution of achievement to the newly associated stimulus (Berridge and Valenstein, 1991). In other words, learning is acquired due to the satisfaction produced on the individual.

A third type of valence is attributed to the outcome of power appraisal, which is defined as the ability of an individual to have influence either by one's own actions or by mobilizing others (Scherer, 2009). This type of valence is highly shaped by the individual's coping mechanisms when facing failure, as this type of mechanisms increase the likelihood of experiencing positively valenced feelings of power. For instance, one may consider that losing 20 pounds is fairly possible after dieting for a month. In this case, the individual is in total control over his/her actions; therefore, a high control/power over the appraised event is ascribed with positive affect (e.g., Keltner et al, 2002). Consequently, personal failure in losing the weight may result in feeling powerless. However, if the appraised event were to be considered as uncontrollable since the beginning (e.g., no one can lose 20 pounds in one month); then, the feelings of power would be no longer threatened (coping mechanism).

The fourth type of valence has its basis on one's self-concept and the congruence with the appraisal of an event. The individual's perspective of itself have several domains; therefore, we will review only a few for a general idea. According to Higgins (1987), the "actual self" refers to how a person perceives him or herself to be in reality, the "ought self" is related to what the self should be like based on norms or duties, and the "ideal self" refers to what the person aspires to be. In this type of valence, it is mostly relevant to characterize self-congruence and morals; thus, we make a distinction between internal and external norms, without taking into account the second. Hence, an example could be found in what a person chooses to eat in congruence with what the person reflects as its identity. Notwithstanding any global, state or cultural norms; this is the self-represented.

Finally, the fifth type of valence is determined by social expectations in different contexts, and what is conceived as moral goodness. As Shuman (2013) explains, duties and ideals are defined in a social context, and can be more or less internalized. For instance, there are multiple ideals and duties for members of a religion. Nevertheless, another example might be anarchists, which construct their ideals in opposition to a common moral code. This contrast reflects that the appraisals of self-congruency and moral goodness may often occur slower than other appraisals be more deliberate. Moreover, they can result in fast and unconscious processing when becoming internalized.

One-Dimensional valence

According to Cabanac (1992), the one dimensional valence concept could be the key of understanding how behavior is prioritized (Shuman et al, 2013). Depicting valence as one common currency (e.g. Cabananc, 1992; Russell, 2003; Barrett, 2006; Peters et al, 2006) that serves as a representation of a whole has been key to understand cognitive processes such as decision making and voluntary attention. From a statistical perspective, there is a logical need to use a quantifiable variable in order to compare, rate and choose between options. Furthermore, valence commonly emerges as the emotional dimension that explains most variance in the classification of affective words and affective states aroused by various stimulus across languages and age groups. With that said, this conception of valence becomes not only most convenient; but also reliable for this dissertation. Nonetheless, there are some limitations to this construct of valence as it does not consider several events or variables. For

instance, emotions of fear and anger cannot be distinguished based on their valence; additionally, individuals are capable of having mixed-feelings at the same time. For the mentioned reasons Shuman et al (2013) went as further as proposing a framework for levels of valence; however, that information does not concern or impact our study. It is relevant to emphasize that, for the purpose of this research, the one-dimensional valence is the construct used for the analysis of the data collected.

1.4.2 Evidence regarding valence and cognitive processes

Despite the fact that unveiling the concept of valence has been the predominant aim of our research; it is fundamental to unfold the close relationship that exists between valence and the cognitive processes that affect the human mind. In the following section, evidence regarding valence and different cognitive process will be addressed in hopes of clarifying the reasons why our research has taken such focus in this field of study.

Concerning memory research, it has been stated that people usually face several difficulties when recalling words ranked with positive valence values (e.g., "butterfly" or "peace"). On the contrary, negative valenced words (e.g, "gun" or dirty") do not present this dilemma. (Kensinger et al., 2006; Kensinger, Garoff-Eaton, & Schacter, 2007). Furthermore, Kensinger (2009) states that positive emotions lead to more schematic memories; whereas, negative emotions lead to more accurate memory for detailed events. Interestly enough, recent studies by Dewhurst & Parry (2000) and Ochsner (2000) found that negative items were more likely to be remembered vividly, than neutral items (Phelps et al, 1998). Similarly, a minor enhancement in memory was also found in the case of positively balanced items for the same subjects in their researches. In other studies (D'Argembeau & Van der Linden, 2004; Doerksen & Shimamura, 2001), the results revealed that emotional words were better remembered than neutral words in terms of features. These outcomes can be observable in a similar study conducted by Kensinger et al. (2007). In the referred experiment, subjects were shown a series of images with contained either neutral or emotional stimuli. Consequently, participants were instructed to recall and distinguish the objects as accurately as possible. Overall, parties were able to discern more accurately negative objects than positive ones; as memory advantages for details concerning positively valenced objects were not observed.

Thus far, evidence from valence and memory research has shown that; even though, negative valenced stimuli is remembered better than positive stimuli; that is not the case for every scenario. For instance, in the case study of Lang, Dhillon & Dong (1995); the combined effects of arousal and valence took a new direction. From that research, it was concluded that; when valence is controlled, arousing messages are remembered better than calm messages. On the contrary, when arousal is controlled, positive messages are better remembered than negative messages. Not to mention, memory research is not the only area of interest when dealing with the emotional dimension of valence. Along with arousal, a study conducted by Sandstrom et al. (2009), resolved that both variables can help people to recover from stress. Findings proposed that music rated with low arousal and a high valence is most effective to promote both subjective and physiological recovery. As previously stated, further evidence concerning valence values and cognitive processes suggest that negativity contributes to word recognition slow down. Nevertheless, Kousta (2009) claims that despite the value of valence (positive or negative), word recognition speeds up. Coupled with the idea previously stated, Kuperman et al. (2014), determined that in terms of memory research, recalling words with positive valence in general begets difficulties in learners. The study suggests that responses from learners are faster to negative words than to neutral words, and equally fast to positive and to negative words.

Under the scope of the mentioned studies, several conclusions were drawn in order to answer to the affective effects in word processing. On the one hand, similar to Kousta's claims it has been stated that increasing levels of valences accelerates lexical decisions, conducting such effect over the complete range (negative, neutral, and positive words). On the other hand, it was established that the affective effect highly interacts with word frequency over arousal. Similarly, Kousta et al. (2009), addressed the results of Kuperman's research alongside the line of motivational relevance, hence positive and negative stimuli respectively stimulate the approach and avoidance behavioral systems, since both valences are "motivationally relevant," and as stated by Lang et al. (1995), "motivationally relevant stimuli are preferentially processed". Finally, a research carried out by Kuchinke et al. (2005), pointed at neural responses associated with incidental processing of the emotional valence of single words. The study compared valence values for words and nonwords, resulting in greater brain activity in response to words than to nonwords. Such responses

originated differences between negative and positive words over the neutral ones, thus acknowledging the fact that positively valanced stimuli facilitate word recognition. Even though responses showed differences between positive and negative stimuli, such value accounts for the way that emotional material is organized and stored in our memories.

To recapitulate, the previous sections went through several pieces of literature mainly related to describing emotions and the features that could affect language. In efforts to intertwine emotion and cognition, our research was dedicated to shed some light into theoretical constructs that may be of interest for language teachers in their professional exercise in teaching English as a second language.

1.5 Emotion in Second Language Learning

Thus far, emotion has been characterized in efforts to develop the idea that cognitive processes are in fact influenced by them (Krathwohl, 2002). Furthermore, by shedding some light into the "pleasure" dimension of emotion; it becomes clearer that human behavior can be closely related to motivation. This notion of events opens a vast window in the field of education, as currently there is great interest in finding the best techniques and approaches to teaching.

It bears mentioning that our line of research is directed towards analyzing the features of emotion that, along with observed behavior, may have some impact inside the English teaching classroom. Otherwise stated, it is our main objective to find a connection between one particular dimension of emotion and cognitive processes which are concerned with language proficiency. Consequently, the following sections will showcase the journey of emotion research through the cognitivist theories of second language learning (SLL).

1.5.1 Emotion and cognition inside de SLL classroom

Since the past few decades, along with the evolution of the psychological currents that went from Watson's behaviorism (1913) to Gardner's multiple intelligences (1991) or Goleman's Emotional Intelligence (1995); the role and study of emotions along with the development of linguistics has gained terrain in multiple areas regarding the human learning process. In order to depict this paradigm; it becomes relevant to mention some of the most

revolutionary learning theories that have changed the manner in which the science community approaches teaching techniques inside the second language learning classroom. For instance, author Merrill Swain (2011) states that scientists' attempts to integrate emotion into the learning process have overcome the isolation of cognition as the only feature of intelligence that affects human behavior. To showcase this assertion; Chomsky (1957), also considered the father of modern linguistics, has based his research on a behavioristic premise in which the language is acquired through his Universal Grammar theory. This perspective sets its foundations on the fact that learning a language becomes a natural process if the learners extrapolate the grammar structures from their native language (L1) in a conductivistic fashion by using the cognitive processes allowed by the learners' intelligence.

Chomsky's theoretical construct (1957) describes language as "a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements". Furthermore, he alleges the existence of a language acquisition device (LAD) that allows the identification of grammatical sequences for the proper production of a language; that is to say, language that is adequate under the scope of a native speaker. He also claims that in order to assess the accuracy or properness of the language; it is possible to test it under behavioral criterion in a way that language can be produced in an effective and illuminating manner. So far, it is important to emphasize that no emotionality is mentioned or taken into account as part of this learning process. As Swain (2011) states, it wasn't until Krashen (1985), that a new concept involving emotion was introduced: The affective filter.

Stephen Krashen introduced five key concepts that changed the grammatical focus in language learning. Essentially, the author made a clear differentiation between "language learning" and language "acquisition", granting intentionality a major role during this process. Krashen puts forward the notion that learning is a conscious process, which also means that the learner has a particular goal to achieve, whereas acquisition happens subconsciously. At this point, intrinsic learning factors such as interest and motivation (Krashen and Terrell, 1983) fulfill an important role along with emotion, as self-confidence, self-image and anxiety levels act as variables that could potentially prevent Chomsky's LAD to process grammatical input.

To recapitulate, the affective filter theory sustains that different levels and types of emotion can act as a barrier that obstructs language acquisition and learning, which is a whole new perspective added to language acquisition theory. For our study, the relevance of these assertions lies in the changes attributed to learning theories as currently there are new variables that affect the way students learn. By acknowledging the role of emotion in language learning; then, it becomes plausible that its features also inflict some influence in the cognitive processes of language acquisition.

To conclude with this chapter, it is purposeful to emphasize that, even though, valence research in general is not focused towards the educational field; our approach to the topic intends to transform neuro-scientific originated knowledge so that it is usable in modern teaching methodologies. With that intention in mind, it was decided to observe whether the feature of words regarded to pleasantness influenced how well second language learners knew vocabulary. The efforts to unveil such relationship between valence and vocabulary lead to a series of descriptive data analyses retrieved from previous emotional research and an online survey designed to collect participant ratings. The following chapters describe in more detail the present study.

Chapter 2 – Problem statement and research proposal

2.1 Justification

The study of emotions has gained great terrain in educational research because it has shown to play a major role influencing human behavior. In order to depict the previous statement; it becomes relevant to emphasize, once again, that psychological currents changed from behavioristic approaches to cognitive constructs of intelligence that gradually integrated emotion into learning theory (Swain, 2011). For instance, after the psychological behaviorism period and following Piaget's theory of cognitive development (1936); Vygotsky's (1978) general theory of culture proposed that cognitive skills in children are built upon, or by, their interactions with others or with the artefacts and symbols that society has created for communal use (Moll & Tomasello, 2007). Hence, the eluded theory is providing the social dimension of intelligence a focus on culture, collaboration and teaching.

Thus far, emotion had not been considered within these constructs, yet there is clearly a social need for interaction to achieve learning. Golleman's emotional intelligence (1995), states that each emotion elicits a different response according to the stimuli each person is exposed to. What is more, the author proposes that our deepest feelings, passions and longings are essential guides to preserve our existence, as they provide a survival value to our affairs. However, emotions not only take place to fulfill biological and physiological needs. For instance, Tyng et al. (2017), studies have reported that human cognitive processes are affected by emotions, including attention (Vuilleumier, 2005), learning and memory (Um et al, 2012), reasoning (Jung et al, 2014) and problem solving (Isen et, al 1987). In other respects, Schupp et al. (2007) suggest that emotional stimuli may command voluntary attention and priority processing given their significance for survival and reproduction. Emotion, then, is fundamental to perpetrate effectively in social interaction.

To our appreciation then, the provided evidence concerning emotion is relevant for teachers, because decision making within the classroom setting is based upon the educators' understanding of the students' learning process and capabilities. Furthermore, there is plenty of literature that agrees that teachers' teaching and assessments practices are driven by their beliefs about language learning (Cho, 1990; Cook, 2001). This last statement is the main reason why this dissertation was pinpointed into the study of emotions, as it has become preponderant for educators to be cognizant of the constant changes regarding the educational field. Nowadays, it is not sufficient for pedagogues to be experts in their area of study; more than that, they must cater for students' needs with a personalized approach to teaching. As we move forward along with this realization, the educators, then, must carefully design their courses in order to maximize learner engagement as well as improve learning and long-term retention of the material (Shen et al, 2009)

In light of the previous arguments, the purpose of this investigation is aimed to study and analyze a specific trait of language which is related to emotion words and its effects or influence towards learning a second language. To clarify, the referred trait consists of emotional ratings of words. The study of emotions can be executed in hopes of discovering the impact that emotional features have on the processing and memory of words (Warriner et al, 2013). Therefore, we set our intentions into finding a relationship between two features of emotion words: valence and word knowledge. This decision was based upon the existing evidence on valence and its impacts on word processing, voluntary attention and memory retention. Subsequently, the results of this research could lead to further theorization to the implications of using certain types of words in vocabulary teaching. Thus, the study of a particular dimension of emotion in words could potentially enhance teaching practices within the SLA classroom. Not to mention, that all these efforts are in hopes of integrating new knowledge into already prevalent teaching methods.

2.2 Research questions

- Does word valence influence vocabulary knowledge in second language learners?
- Do second language learners know emotion words better than neutral words?

2.3 Objectives

2.3.1 General objective

- To investigate the effects of valence on vocabulary knowledge in second language learners.

2.3.2 Specific objectives

- To identify the influence of word valence regarding participants' word knowledge in second language learners.
- To determine whether emotion words are known better than neutral words by second language learners.

2.4 Variables

2.4.1 Dependent variables

Word knowledge

The rating a participant provided in regards of how well the individual knew a particular given word. This self-evaluation of word knowledge was measured using a likert scale that ranged with values from 1 to 7 which corresponded to "I don't know this word" and "I know this word perfectly" respectively.

2.4.2 Independent variables

Valence

Valence is a dimension of emotion which ranges from pleasant to unpleasant in a scale ranked from 1 to 9 (Bradley & Lang, 1999). Valence values were pulled from the Affective Norms for English words; a research conducted by Bradley and Lang (1999) which aimed to develop a set of verbal materials that have been rated in terms of pleasure, arousal and dominance in furtherance of complementing the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 1999) and International Affective Digitize Sounds (IADS; Bradley & Lang, 1999) which are collections of pictures and sound stimuli, correspondingly, that also include these ratings. The existence of these affective collections should come as useful resources for emotion and attention research.

2.5.3 Hypotheses

- H1: Word valence influences vocabulary knowledge in second language learners.
- H2: Second language learners know positively and negatively charged words better than neutral words.

Chapter 3 – The study

3.1 Introduction

This dissertation was designed to fit the paradigms of a quantitative research. A quantitative approach is characterized by its reliable and accurate measurements which allow statistical analysis of the collected data. Creswell (1994), has defined this particular type of study as a phenomena that is explained through the mathematical analysis of retrieved numerical data. Furthermore, a more contemporary definition provided by Goertzen (2017) states that findings generated from quantitative research uncover behaviors and trends; nonetheless, it does not cater for the understanding of the reasons why a certain phenomenon occurs. In other words, this type of research is effective to describe trends across data sets or study groups; yet, it is not meant to explain the motivation that triggers the observed behavior. Goertzen (2017) also grants some important features to quantitative research by stating that it aims to be objective as it deals with numbers to assess information. In addition, it also represent complex problems through variables and results that can be summarized, compared or even generalized. What is more, research conducted under this paradigm can be used as a baseline for further investigation as documentation regarding the research framework and methods can be shared and replicated over time.

Under the scope of quantitative research then, our study attempted to find the effects of valence in regards of participants' word knowledge. Otherwise stated, our main objective was to establish whether positive or negative valence values of words influenced the degree of vocabulary knowledge in second language learners. In order to do so, participants were given a set of words which they had to rate in terms of how well they knew a particular word. The words in question, and their descriptive data, were extracted from the Affective Norms for English Words (ANEW) research conducted by Bradley and Lang (1999). The ANEW is a set of normative emotional ratings for a large number of words in the English language whose primarily goal was to provide ratings for emotional dimensions such as pleasure, arousal and dominance (Bradley & Lang, 1999). In simple terms for the alluded research, participants were instructed to rate a set of words using figures that represented happiness/unhappiness, excitement/calmness and controlled/in-controlled. According to these authors, the existence of these affective collections should be of great support for

researchers across any investigation of emotion and attention as it provides standardized data and materials available to any researcher of the field.

3.2 Method

3.2.1 Data collection technique

There are several types of data collection techniques that can be used in research, such as interviews, questionnaires, observations and case studies amongst others. From all the alluded techniques, a questioner which consisted on a survey, was used in order to retrieve the information needed to fulfill this task. According to Check & Schutt (2012), survey research is defined as "the collection of information from a sample of individuals through their responses to questions" (p.160). Moreover, historically, survey research has as its primary purpose to retrieve information from a large sample of individuals of interest relatively quickly. In consequence, surveys are a useful and legitimate approach to research, as they help to describe and explore variables and constructs of interest (Ponto, 2015). In consideration of the foregoing, this research agrees with the methods, materials and procedures of previous validated studies.

3.2.2 Participants

Values from 105 English as a second language learners (ESL) volunteers were collected. Amongst them, 68 females and 37 males, whose age ranged from 15 to 52 (mean age = 23.1 years, SD = 7.1). Regarding the sample, most of the participants were English trainee teachers (48%) from Universidad Católica de la Santísima Concepción; additionally, several English Teachers (21%) and English Teacher Graduates (5%) took part in the conducted research. The sample also included English language learners from different levels of educational attainment, such as high school students (18%) and other licensed professionals (8%).

3.2.3 Materials and procedure

The survey contained a word set of a 100 words taken from the Affective Norms for English Word list (ANEW; Bradley & Lang, 1999). The selection of words attempted to include as many low frequency words as possible. Additionally, the instrument was created and designed using Google forms, following the decision to conduct the survey online (see Appendix 2). The survey was divided in 3 sections. Upon access, participants encountered section 1 and 2 which consisted of a few demographic questions (age, gender, occupation, level of English language proficiency). Before proceeding to the following section, participants had to explicitly confirm that they were willing to participate in the study. Section 3 contained the set of instructions with the list of words to be rated with a likert scale that ranged from 1 to 7. It is relevant to emphasize, that once the answers for the survey were submitted, the participants could no longer go back to change their ratings.

3.3 Data analysis

The data analysis was conducted using R (R Development Core Team, 2011).

3.3.1 Exploratory data analysis

The exploratory data analysis had as its main objective to characterize the sample constituted by the words and the participants separately. Firstly, the word list was characterized in regards of valence, frequency and word length (see appendix 1). The alluded descriptive data was retrieved from the ANEW list (Bradley and Lang, 1999) and Lexicon Project (Balota et al., 2007) correspondently. In order to work with a more reliable sample, words with frequency values lower than 7000 were excluded from the word set (see appendix 3), resulting in a final rated sample constituted by 52 words, which was later divided into quartiles of valence. Separately, in addition to the previous procedures, the words' descriptive data was laid out in several categories which allowed the visualization of the language features of the words assigned to particular quartiles of valence. The aforementioned categories correspond to valence and frequency values across the English and Spanish language and word type distribution across the entire sample.

Once the word descriptive data was sorted out; it was equally relevant to see whether the already described word variables of valence, word length and word frequency interacted with one another to some extent; as research states that there are traits of words that could influence several cognitive processes. Taking this into account, another correlation matrix was run so that it was possible to perceive which language traits could influence the results. Finally, it was relevant to analyze the features of the language learners, as our investigation sought to be a reliable source of research. Hence, a correlational matrix was conducted with the intention of assessing their answers or ratings. This particular procedure allowed us to evaluate whether participant answers were random or if they lacked the skills or language proficiency to take part on this investigation.

3.3.2 Main data analysis

The main data analysis corresponds to the exploration of valence descriptive data and participant word knowledge ratings. Retrieved data showed to have a non-parametric distribution; therefore, a Kruskal-Wallis test was run to examine the effects of valence on participant ratings. Finally, as means to assess contrast, a multiple comparisons test was conducted in order to pinpoint exactly which quartiles showcased significant differences regarding the ratings for participants' word knowledge.

3.4 Results

3.4.1 Exploratory results

Quartiles of valence

With the objective of characterizing the sample in terms of valence values (pleasant /unpleasant), the word set was divided into quartiles. The outcome of this procedure resulted in quartiles going from negative to positive values. In a scale ranging from 1 to 9, quartile 1 (negatively charged words) corresponds to valence values going from 1.69 to 2.96. Quartile 2 (neutral negative) ranged from 3.27 to 4.55. Quartile 3 (neutral positive) was assigned to valence values going from 4.74 to 6.45. Finally, quartile 4 (positively charged words) ranged with values from 6.88 to 8.29.

Negative and positive valence values across English and Spanish

The values of valence of the English and Spanish language for opposite poles of the word sample were displayed with the aim of comparing and contrasting similarities and/or differences between words across languages (see TABLE 1 and TABLE 2). On the whole it is observable that, in regards of valence values across languages, words remained in the same quartile. That is to say that negative valenced words in English were also classified as negative words in Spanish. Consequently, the same principle applied to words in the positive quartile.

TABLE 1

Quartile 1 valence values across English and Spanish

Word	Valence English	Translation Spanish	Valence Spanish
Annoy	2.74	Molestar	2.73
Bankrupt	2.00	Quiebra	2.45
Coffin	2.56	Ataúd	1.46
Corpse	2.18	Cadáver	1.73
Delayed	3.07	Retrasar	3.25
Dreadful	2.26	Espantoso	2.10
Feeble	3.26	Débil	2.53
Foul	2.81	Repugnante	1.95
Gloom	1.88	Penumbra	3.75
Grief	1.69	Dolor	2.15
Jealousy	2.51	Celos	2.05
Menace	2.88	Amenaza	2.68
Riot	2.96	Disturbio	3.20
Upset	2.00	Disgustado	2.55

Note: For quartile 1, negative valence values range from 1.69 to 2.96.

TABLE 2

Quartile 4 valence values across English and Spanish

Word	Valence English	Translation Spanish	Valence Spanish
Ace	6.88	As	5.95
Bliss	6.95	Dicha	6,38
Comfort	7.07	Comodidad	7.68
Delight	8.26	Delicia	8.20
Devoted	7.41	Dedicado	6.75
Gentle	7.31	Amable	8.50
Grin	7.40	Sonreír	8.15
Pleasure	8.28	Placer	8.18
Prestige	7.26	Prestigio	7.18
Thrill	8.05	Emoción	7.60
Twilight	7.23	Crepúsculo	6.25
Wise	7.52	Sabio	7.65
Wit	7.32	Ingenio	6.90

Note: For quartile 4, positive valence values range from 6.88 to 9.

Word frequency across the English and Spanish language

Frequency values across the English and Spanish language were compared and contrasted concerning the negative and positive quartile (see FIGURE 1 and FIGURE 2 respectively). The data analysis showcased that, in general, the Spanish counterpart had higher frequency values. Thus, the words present in the set list were more frequent in the Spanish language than in English.

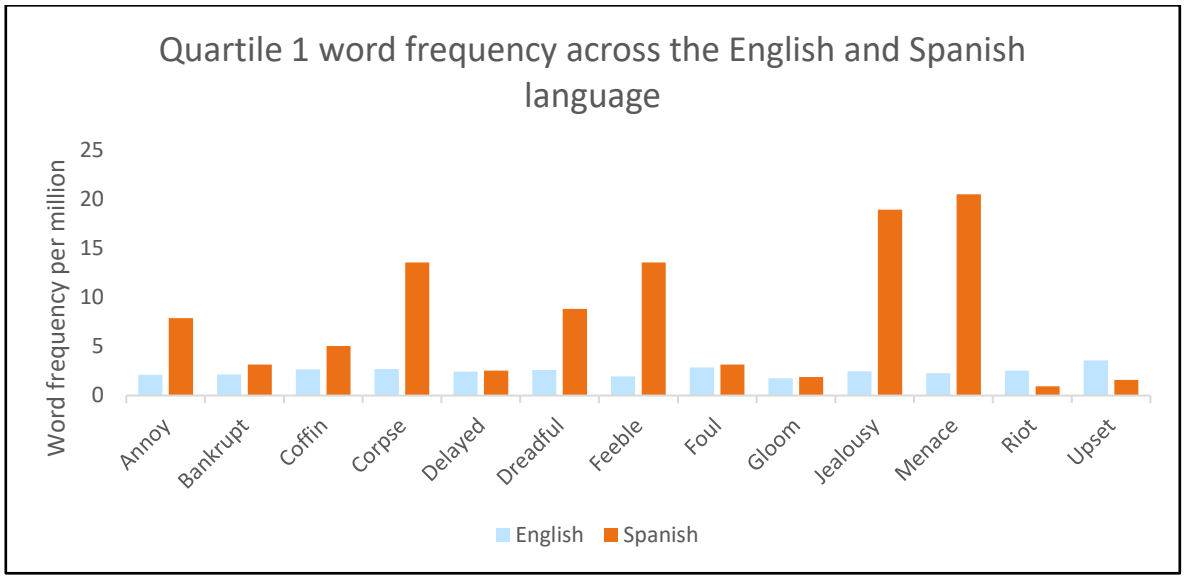

FIGURE 1. Quartile 1 word frequency per million across the English and Spanish language.

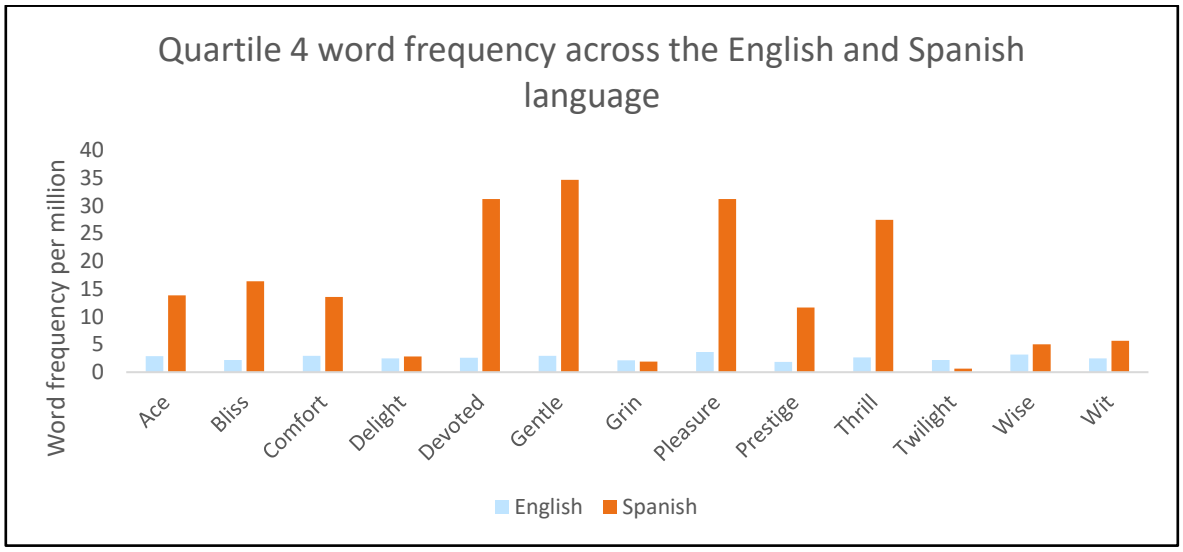

FIGURE 2. Quartile 4 word frequency per million across the English and Spanish language.

Word type distribution across quartiles of valence

According to our previous research, there was another emotional feature of language that affected different cognitive processes regarding memory and attention: word type. Two analyses were conducted concerning this approach. Firstly, the word type distribution across every quartile of valence (see FIGURE 3); and secondly, the word type distribution across the negative and positive quartile (see FIGURE 4). The latest process intended to further contrast differences amongst negative and positive words. Results portray that quartile 1 was constituted by 43% emotion words, 36% abstract words and 21% concrete words. Quartile 2 was composed by 17% emotion words, 17% abstract words and 67% concrete words. Quartile 3 contained 21% abstract words and 79% concrete words. Finally quartile 4 was constituted by 31% emotion words, 54% abstract words and 15% concrete words

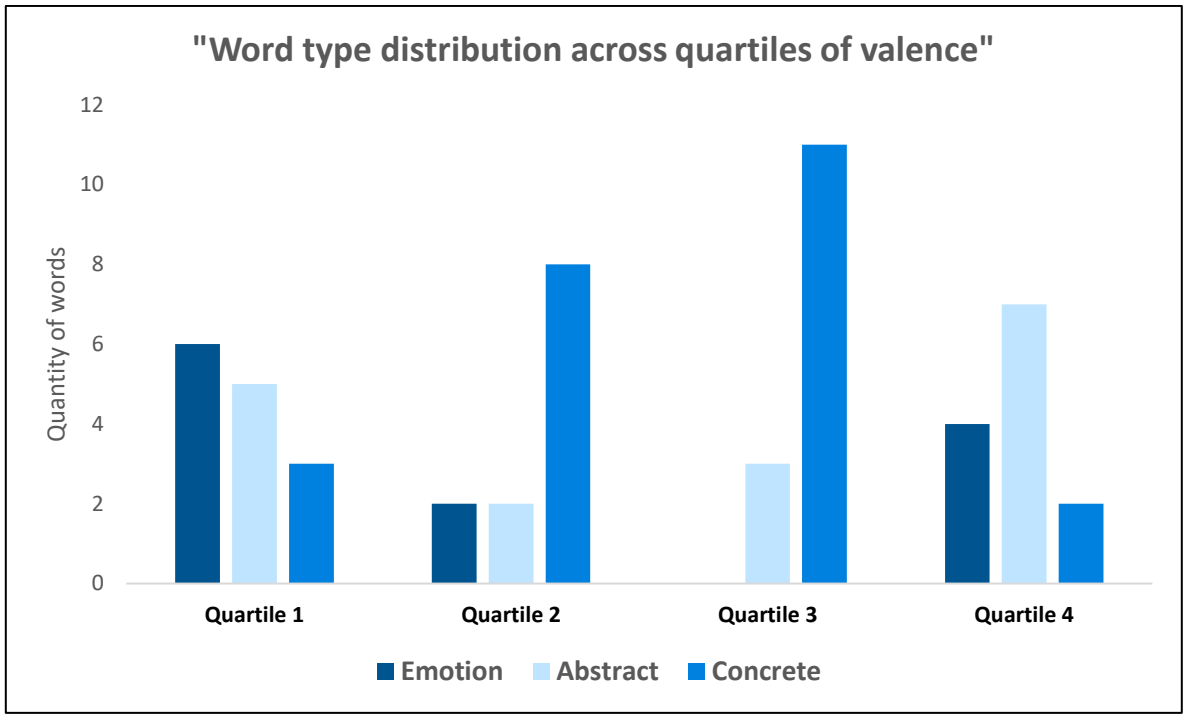

FIGURE 3. Word type distribution across quartiles of valence.

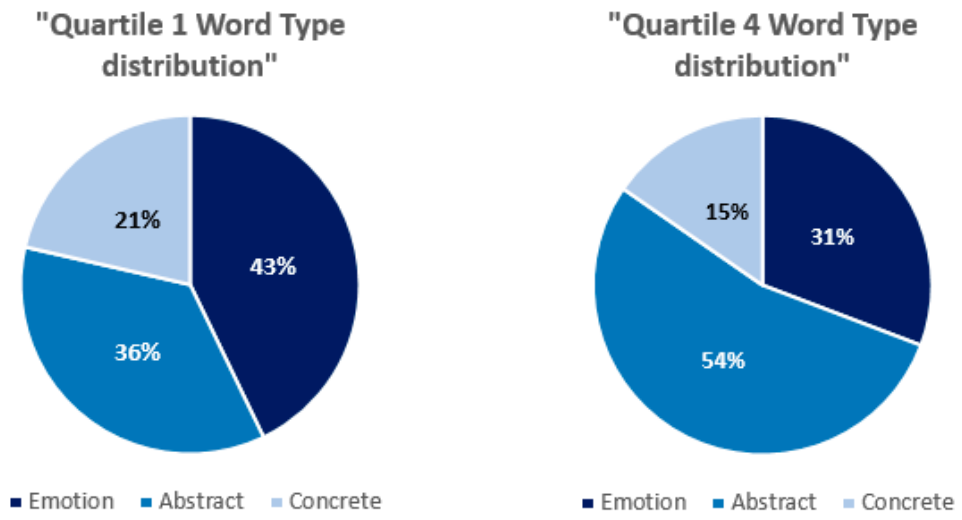

FIGURE 4. Quartile 1 vs. quartile 4 word type distribution.

Correlation matrix – participant data

Correlational analyses were used to examine the relationship between participants' proficiency in the English language and the data retrieved regarding their depth of vocabulary knowledge (Participant word knowledge ratings). Exploratory results indicated high correlations amongst language skills and language proficiency. However, these outcomes were not echoed regarding participant ratings; as results showcased low correlation between the ratings and language proficiency (see TABLE 3).

TABLE 3.

Correlation Matrix – Participant Data

	Speaking	**Writing**	**Listening**	**Reading**	**Language Proficiency**	**Participant Rating**
Speaking	1	0.75	0.81	0.72	0.91	0.32
Writing	0.75	1	0.67	0.74	0.88	0.33
Listening	0.81	0.67	1	0.79	0.91	0.3
Reading	0.72	0.74	0.79	1	0.9	0.31
Lang. Prof	0.91	0.88	0.91	0.9	1	0.35
Part. Rat	0.32	0.33	0.3	0.31	0.35	1

Note: All these correlations are significant, which means that participants did not answer randomly.

It is observable that values from participant's self-assessed skill proficiency showcase a high correlation between language skills, whilst writing and listening display a mid-high correlation. FIGURE 5 depicts scatterplots of their relationship in order to better illustrate how they correlate. Overall, language skills variables present a positive linear correlation amongst themselves. From these values we can also appreciate that even though language skill correlations were high in most cases, these variables did not influence participant rating and word knowledge which remained with a low correlation in general.

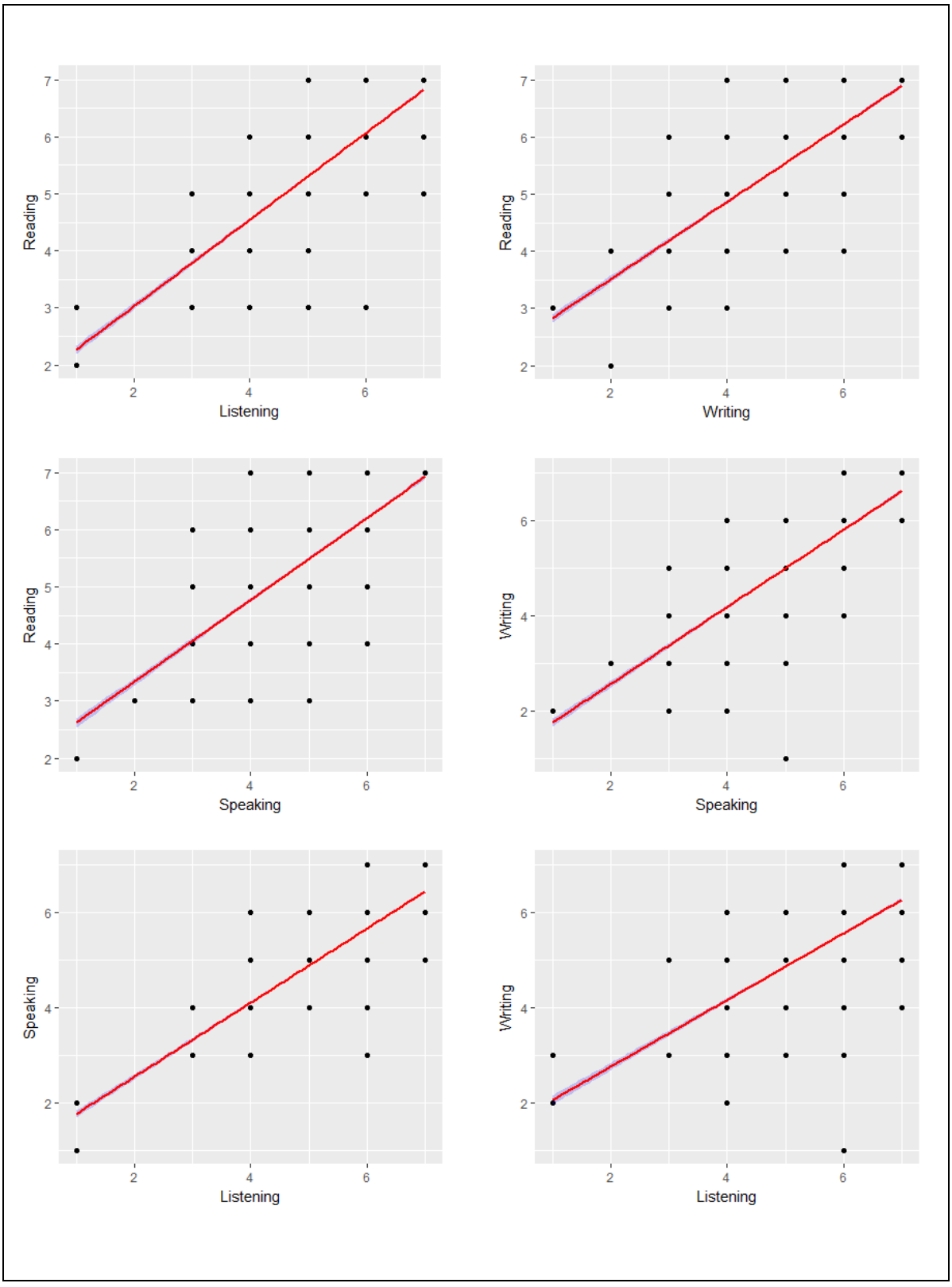

FIGURE 5. Correlations between language skills.

Correlation matrix – word variables

Correlations were computed amongst three variables of interest concerning language features: valence, word length and word frequency. Results exhibited in TABLE 4 show that the correlations between these variables are low.

TABLE 4.
Correlation Matrix – Word Variables

	Valence	**Length**	**Log. Freq. Hall**	**Log. Freq. SUBTLWF**
Valence	1	-0.03	0.31	0.15
Length	-0.03	1	-0.28	-0.2
Log. Freq. Hall	0.31	-0.28	1	0.64
Log. SUBTLWF	0.15	-0.2	0.64	1

Note: Valence (Val.), word frequency (Freq.), word length (Length), logarithmic word frequency per million (Log. Freq.HAL), quartile (Quart.)

The results portrayed in TABLE 4 allows us to state that word length and frequency have little influence on valence values, which aligns with theories from the literature reviewed.

Despite the fact that there is little correlation between valence and word frequency, for the purpose of proper and further data analysis, a bar plot was created in order to enlighten the features of the words that were associated to each quartile. FIGURE 6 showcases that the positive quartile was the group constituted with the most high frequency words of the list; whereas, quartile 2 (neutral valence values) was composed by words with the lowest frequency values.

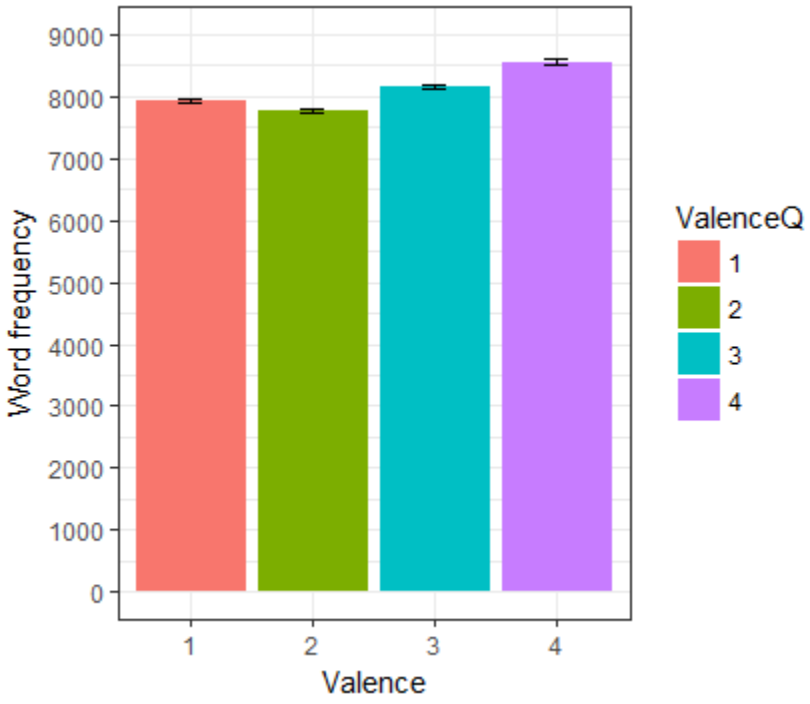

FIGURE 6. Word frequency across quartiles of valence.

3.4.2 Main results

Non-parametric data testing

As the retrieved data showed to have a non-parametric data distribution; a Kruskal-Wallis test was conducted in order to find out the main effect between valence (quartiles) and participant ratings (word knowledge). The results showed that there is an effect of valence in regards of participant word knowledge. In fact, the outcome of the test portrayed a high degree of significance between the variables ($H(3) = 171.98$, $p = < 0.001$). In simple terms, this result discloses valence as a factor or agent that, at some degree, affects how much a person knows a word.

Post hoc testing

Because it was discovered that valence affected participant word knowledge, it became our new objective to identify how and which valence subgroups affected the latest variable. With that intention, a multiple comparison test was conducted. The main aim was to compare and contrast each quartile in order to find which valence groups were causing the phenomenon.

TABLE 5 evidences that the positive quartile showed considerable high significant differences concerning participant ratings from the negative and neutral quartiles. Additionally, differences between quartiles 3 and 1 also seem to be significant.

TABLE 5
Multiple Comparison test

Quartiles	***Estimate Std***	***St Error***	***T Value***	***P value***
2 – 1	-0-17690	0.09125	-1.939	0.2118
3 – 1	-0.24857	0.08767	-2.835	0.0234 *
4 – 1	-1.09126	0.08934	-12.215	<0.001 ***
3 – 2	-0.07167	0.09125	-0.785	0.8611
4 – 2	-0.91436	0.09286	-9.847	<0.001 ***
4 – 3	-0.84269	0.08934	-9.432	<0.001 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1. Adjusted p values reported -- single-step method

With the outcomes previously bestowed, it becomes necessary to further illustrate how each valenced quartile interacted with word knowledge ratings; as there is a clear difference amongst the tendencies that each quartile triggers in function of vocabulary knowledge.

From FIGURE 7 it is discernible that quartile 1, which corresponds to the lowest valence values or negatively charged words, had the highest scores for word knowledge. Additionally, scores from quartiles 2 and 3 (both neutral values of valence) showed no significant difference amongst them. Lastly, quartile 4 had the lowest scores regarding word knowledge, which means that participants recognized negative or neutral words better than positively charged vocabulary.

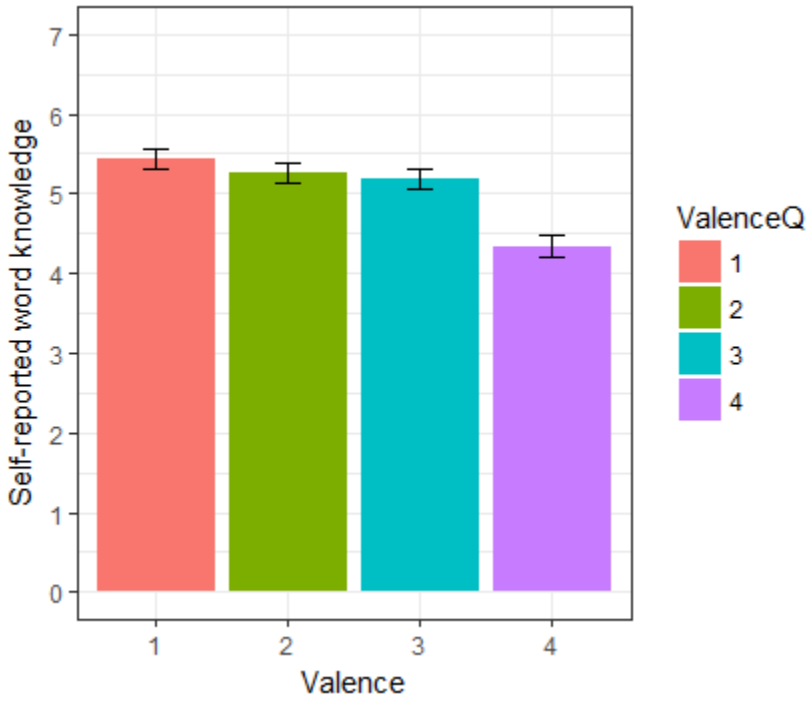

FIGURE 7. Self-reported word knowledge across quartiles of valence.

Chapter 4 – Discussion, conclusions and limitations

4.1 Discussion and limitations of the study

The current study had as its main objective to establish an effect between two features of interest regarding the concepts of emotion and language: valence and vocabulary, respectively. Even though our research did not have the necessary competences to substantially explain the existent relationship between these two variables; it was possible to elucidate the presence of such association. By means of acknowledging a relation between the positive/negative stimuli of a word and the level of word knowledge; the decision to reinforce the teaching of emotionally charged words would emerge as an efficient vocabulary teaching strategy. Notwithstanding that there was few research regarding this particular educational approach to valence; much evidence suggested that in fact, regardless of polarity emotion words have an advantage in cognitive processing. Therefore, and according to our inquest, the supposition that either positive or negative valenced words are better known than neutral words was not farfetched. However and interestingly enough, the results of our study only met half the expectations.

To sum up the main results of our study, the non-parametric data testing exposed noteworthy information concerning our first hypothesis. The data analysis showcased a significant relationship between valence and participant ratings. This particular test outcome harmonizes with the research and evidence presented in chapter one; as valence has manifested its influences in several cognitive process regarding voluntary attention and memory retention. In other words, our study has further elucidated that the emotional dimension of words known as valence arises an impact in how well second language learners know a word. Furthermore, our analysis not only enlightened on this correlational matter; but also, it was able to point out the subgroups of valence that were enforcing such relation. Yet, as aforementioned, results did not come as expected. Up to this point in our research, literature states that emotion words are either memorized better or processed faster than non-emotion words. Thus, why is that in the present study only negatively valenced words showcased the highest word knowledge ratings? As predicted, the neutral word groups showed no significant differences amongst themselves, which means that words from

quartiles 2 and 3 had more or less the same scores. Yet why did quartile 4, composed by positively charged words, had the lowest scores?

In this context, as a means to speculate about the reasons that caused this particular event; it becomes pertinent to broaden the area of study and consider certain features or variables that, may have impacted on the results. For instance, it is of great relevance to recognize that the participants' first language (L1) could have potentially interfered with their ability to self-assess how much they knew the vocabulary presented on the survey. Thus, valence and frequency values for the words contained in quartiles 1 and 4 were retrieved from the affective norms for Spanish words provided by the research of Hinojosa et al. (2016). In addition to comparing and contrasting featured word data from the English (L2) and Spanish language; the word type of each word from the mentioned quartiles was also characterized. TABLE 1 and TABLE 2 clearly depict the alluded information.

The data portrayed in TABLE 1 and TABLE 2 allows us to extrapolate several additional information regarding the matter. Firstly, it is perceivable that overall, valence values across languages are similar enough to keep English and Spanish words in the same quartiles (see Appendix 3 for valence value references). Secondly, frequency values seem to be higher for the words in Spanish rather than in English. FIGURE 1 and FIGURE 2 depict word frequencies across languages for quartile 1 and 4 respectively. Thirdly, about 64% of the sample that constituted quartile 1 were emotion and concrete words; whereas, quartile 4 was mostly constituted by abstract words (54%). Finally, it is important to acknowledge that the language presented in the survey was only in the written form and the vocabulary introduced for rating lacked any type of contextualization.

In light of the new information aforementioned, it is feasible to state that for this particular case:

1) Affective norms values for Spanish words did not affect participant responses as values remained similar to their English counterpart. Moreover, valence and frequency values for words in Spanish did not change the conditions or circumstances of the words.

2) The word type distribution across the quartiles affected to some extent participant ratings. FIGURE 4 illustrates the word type distribution across quartile 1 and quartile 4.

As observable in FIGURE 4, a straightforward comparison amongst the word type distribution across the negative and positive subgroups of valence reveals that more than 50% of the elements of quartile 4 are abstract words. This particular piece of information is extremely relevant as there is extensive research that supports the construct that concrete words are remembered better than abstract words (Paivio, 1971; Scwanenflugel, Harnishfeger, & Stowe, 1988; Altarriba & Bauer, 2004).

Therefore, the presented evidence supports the notion that due to the irregular distribution of concrete, abstract and emotion words across the quartiles; ratings concerning participant word knowledge were affected. FIGURE 3 assists in showcasing the word type distribution across the quartiles. The bar plot clearly evidences that quartile 1 contains the most emotion words. Quartile 2 and quartile 3 (neutral values of valence) were composed mostly by concrete words, which explains the higher word knowledge ratings in comparison to the positive quartile. Finally, quartile 4 was constituted in its majority by abstract, low frequency positive words.

In summary, even though the series of events led us to reject our second hypothesis which sustained that both positive and negative words are known better than neutral words; it is important to focus in the word type distribution across the quartiles of valence. Overall, quartile 1 is not only the group with the most amount of Emotion words; but also, it is the group with the highest scores in participant word knowledge.

It becomes noticeable then, that neglecting the distribution of word types across the word sample may have compromised the results of the test. This singular episode leads to the discussion of certain limitations to our study. Firstly, it is relevant to emphasize that there is no or little research that can link a relationship between valence and depth of vocabulary. On the whole, studies concerning valence focus mainly on word recognition, word processing and memory retention amongst others. From that perspective, this dissertation has set its foundations in an area of research that has yet to be unveil. For the previous reasons, we have encountered some issues that could have affected our testing. For instance, as previously mentioned, the words from the word set were only provided in written form and without a context. That scenario could have interfered with the participants' understanding of the word; as their coping mechanisms to reassure the certainty of how well they knew the vocabulary was tampered. Another fault concerned the "self-evaluations". Regrettably, there is no way to crosscheck participants' ratings as they self-assessed how well they knew each word. Despite of this, outcomes did not stray from what was found in literature, which led us to believe that in general, participants' estimates aligned with results from previous studies.

Finally, with regards of the implications of this dissertation, the results open new lines of research concerning the educational field. In terms of learning a second language, research has established that emotions play a major role inside the classroom. Not only human emotions, but also emotions that exist within the different traits of language. Acknowledging the influence of emotion words and cognition allows the educator to implement and innovate in their professional exercise. Our findings have established a correlation between a dimension of pleasure with the level of knowledge of words. It is a matter of answering the following question: If students learn best emotionally charged words; why not teaching emotionally charged vocabulary instead of its neutral counterpart? Valence research points out that that either positive or negative words have a processing advantage over neutral words. The same principle applies to every other cognitive construct mentioned throughout this dissertation. Thus, the implications of this research reverberates mostly in teaching methodology; as the information retrieved from our results suggests that emotion words are learnt better than neutral, concrete and abstract words.

4.2 Conclusions

The present study investigated the relationship that existed between two variables of interest that concerned language teaching: valence and word knowledge. As anticipated by extensive research done revolving valence and its impact on different cognitive processes; the most relevant finding drawn from this study revolved around the strong relationship of emotion words and levels of vocabulary proficiency. Research states that positively or negatively charged words are shown to be known better by second language learners. Therefore, it would be prudent to conclude that focusing on the teaching of these types of words will become an effective strategy to implement in vocabulary teaching lessons. Nonetheless, for this particular study results only supported our first hypothesis; as words with high valence values correspondent to positive/pleasant stimulus showcased to be less known than either negative or neutral words. Speculating on the motives of such outcomes became a hard task as there is little research addressing this type of effect of valence on depth of vocabulary knowledge. Further analysis on the characteristics of the first language of the participants and the type of word that conformed the sample granted some answers on the matter. Overall, the results showcased that Emotion words were known better than either concrete or abstract words. Granting that this study was not absent of limitations that concerned our procedure; results showed to be entailed with contemporary literature on the matter. Furthermore, in regards of the limitations of the study, it is important to bear in mind that we were only able to address a small sample composed mostly by English trainee teachers from Universidad Católica de la Santísima Concepción. Nonetheless, it can be stated that through our study a new perspective has broaden the manner in which emotions, language and second language teaching is approached by teachers. Throughout this dissertation we have utilize the knowledge from different disciplines in a way that can be advantageous for English teachers

New approaches new pieces of information have been shared with the educational community; which can hopefully open the door for new and better research regarding this subject.

References

Altarriba, J., Bauer, L. M., & Benvenuto, C. (1999). Concreteness, context availability, and imageability ratings and word associations for abstract, concrete, and emotion words. *Behavior Research Methods, Instruments, & Computers*, *31*(4), 578-602.

Altarriba, J., & Bauer, L. M. (2004). The distinctiveness of emotion concepts: A comparison between emotion, abstract, and concrete words. *The American journal of psychology*, 389-410.

Altarriba, J., & Canary, T. M. (2004). The influence of emotional arousal on affective priming in monolingual and bilingual speakers. *Journal of Multilingual and Multicultural Development*, *25*(2-3), 248-265.

Balota, D.A., Yap, M.J., Cortese, M.J., Hutchison, K.A., Kessler, B., Loftis, B., Neely, J.H., Nelson, D.L., Simpson, G.B., & Treiman, R. (2007). The English Lexicon Project. Behavior Research Methods, 39, 445-459.

Barrett, L. F. (1998). Discrete emotions or dimensions? The role of valence focus and arousal focus. *Cognition & Emotion*, *12*(4), 579-599.

Barrett, L. F. (2006). Valence is a basic building block of emotional life. *Journal of Research in Personality*, *40*(1), 35-55.

Berridge, K. C., & Valenstein, E. S. (1991). What psychological process mediates feeding evoked by electrical stimulation of the lateral hypothalamus? *Behavioral neuroscience*, *105*(1), 3.

Cabanac, M. (1979). Sensory pleasure. Quarterly Rev. Biol. 54, 1 /29.

Cabanac, M. (1992). Pleasure: the common currency. *Journal of theoretical Biology*, *155*(2), 173-200.

Cacioppo, J. T., & Berntson, G. G. (1994). Relationship between attitudes and evaluative space: A critical review, with emphasis on the separability of positive and negative substrates. *Psychological bulletin*, *115*(3), 401.

Charland, L. C. (2005). Emotion experience and the indeterminacy of valence. *Emotion and consciousness*, 231-54.

Cho, H. Y. (1990). An examination of the relationship between teachers' beliefs in ESL education and their teaching and assessment practices in their classrooms.

Chomsky, N. (1957). Syntactic structures. The Hague: Mouton. 1965. Aspects of the theory of syntax. *Cambridge, Mass.: MIT Press. (1981) Lectures on Government and Binding, Dordrecht: Foris. (1982) Some Concepts and Consequences of the Theory of Government and Binding. LI Monographs*, *6*, 1-52.

Colombetti, G. (2005). Appraising valence. *Journal of consciousness studies*, *12*(8-9), 103-126.

Cook, V. (2001). Using the first language in the classroom. *Canadian modern language review*, *57*(3), 402-423.

D'argembeau, A., & Van der Linden, M. (2004). Influence of affective meaning on memory for contextual information. *Emotion*, *4*(2), 173.

D'Mello, S., Lehman, B., Pekrun, R., & Graesser, A. (2013). Confusion can be beneficial for learning. Learning and Instruction, 29, 153e170.

Dewhurst, S. A., & Parry, L. A. (2000). Emotionality, distinctiveness, and recollective experience. *European Journal of Cognitive Psychology*, *12*(4), 541-551.

Doerksen, S., & Shimamura, A. P. (2001). Source memory enhancement for emotional words. *Emotion*, *1*(1), 5.

Ekman, P. (1992). An argument for basic emotions. *Cognition & emotion*, *6*(3-4), 169-200.

Ferré, P., García, T., Fraga, I., Sánchez-Casas, R., & Molero, M. (2010). Memory for emotional words in bilinguals: Do words have the same emotional intensity in the first and in the second language?. *Cognition and Emotion*, *24*(5), 760-785.

Frijda, N. H., Markam, S., Sato, K., & Wiers, R. (1995). Emotions and emotion words. In *Everyday conceptions of emotion* (pp. 121-143). Springer, Dordrecht.

Gardner, R. C., Lalonde, R. N., & Moorcroft, R. (1985). The role of attitudes and motivation in second language learning: Correlational and experimental consideration. *Language learning*, *35*(2), 207-227.

Goleman, D. P. (1995). Emotional intelligence: Why it can matter more than IQ for character, health and lifelong achievement.

Hepach, R., Kliemann, D., Grüneisen, S., Heekeren, H. R., & Dziobek, I. (2011). Conceptualizing emotions along the dimensions of valence, arousal, and communicative frequency–implications for social-cognitive tests and training tools. *Frontiers in psychology*, *2*, 266.

Higgins, E. T. (1987). Self-discrepancy: a theory relating self and affect. *Psychological review*, *94*(3), 319.

Hinojosa, J. A., Martínez-García, N., Villalba-García, C., Fernández-Folgueiras, U., Sánchez-Carmona, A., Pozo, M. A., & Montoro, P. R. (2015). Affective norms of 875 Spanish words for five discrete emotional categories and two emotional dimensions. *Behavior research methods*, *48*(1), 272-284.

Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of personality and social psychology*, *52*(6), 1122.

Jung, N., Wranke, C., Hamburger, K., & Knauff, M. (2014). How emotions affect logical reasoning: evidence from experiments with mood-manipulated participants, spider phobics, and people with exam anxiety. *Frontiers in psychology*, *5*, 570.

Kensinger, E. A., & Schacter, D. L. (2006). Processing emotional pictures and words: effects of valence and arousal. *Cognitive, Affective, & Behavioral Neuroscience*, *6*(2), 110-126.

Kensinger, E. A., Garoff-Eaton, R. J., & Schacter, D. L. (2007). Effects of emotion on memory specificity: Memory trade-offs elicited by negative visually arousing stimuli. *Journal of memory and language*, *56*(4), 575-591.

Kensinger, E. A. (2009). Remembering the details: Effects of emotion. *Emotion review*, *1*(2), 99-113.

Ketai, R. (1975). Affect, mood, emotion, and feeling: semantic considerations. *The American journal of psychiatry*.

Kleinginna, P. R., & Kleinginna, A. M. (1981). A categorized list of emotion definitions, with suggestions for a consensual definition. *Motivation and emotion*, *5*(4), 345-379.

Kousta, S. T., Vinson, D. P., & Vigliocco, G. (2009). Emotion words, regardless of polarity, have a processing advantage over neutral words. *Cognition*, *112*(3), 473-481.

Krashen, S. D., & Terrell, T. D. (1983). The natural approach: Language acquisition in the classroom.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into practice*, *41*(4), 212-218.

Kuchinke, L., Jacobs, A. M., Grubich, C., Vo, M. L. H., Conrad, M., & Herrmann, M. (2005). Incidental effects of emotional valence in single word processing: an fMRI study. *Neuroimage*, *28*(4), 1022-1032.

Kuhlmann, M., Hofmann, M. J., Briesemeister, B. B., & Jacobs, A. M. (2016). Mixing positive and negative valence: affective-semantic integration of bivalent words. *Scientific reports*, *6*, 30718.

Kuperman, V., Estes, Z., Brysbaert, M., & Warriner, A. B. (2014). Emotion and language: valence and arousal affect word recognition. *Journal of Experimental Psychology: General*, *143*(3), 1065.

Lang, A., Dhillon, K., & Dong, Q. (1995). The effects of emotional arousal and valence on television viewers' cognitive capacity and memory. *Journal of Broadcasting & Electronic Media*, *39*(3), 313-327.

Leventhal, H., & Scherer, K. (1987). The relationship of emotion to cognition: A functional approach to a semantic controversy. *Cognition and emotion*, *1*(1), 3- 28.

Lewin K. (1951). Field Theory in Social Science. Selected Theoretical Papers, (Westport, CT: Greenwood Press).

Lindquist, K. A., Gendron, M., Satpute, A. B., Barrett, L., Lewis, M., & Haviland-Jones, J. (2016). Language and emotion: Putting words into feelings and feelings into words. *Handbook of emotions*.

Moll, H., & Tomasello, M. (2007). Cooperation and human cognition: the Vygotskian intelligence hypothesis. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *362*(1480), 639-648.

Montag, C., & Panksepp, J. (2017). Primary emotional systems and personality: An evolutionary perspective. *Frontiers in psychology*, *8*, 464.

Ochsner, K. N. (2000). Are affective events richly recollected or simply familiar? The experience and process of recognizing feelings past. *Journal of Experimental Psychology: General*, *129*(2), 242.

Osgood, C.E., Suci, G., Tannenbaum, P., 1957. The measurement of meaning. University of Illinois Press, Urbana, IL.

Panksepp J. (1998). *Affective Neuroscience: The Foundations of Human and Animal Emotions.* Oxford: Oxford university press.

Panksepp, J. (2005). Affective consciousness: Core emotional feelings in animals and humans. *Consciousness and cognition*, *14*(1), 30-80.

Peters, E., Västfjäll, D., Gärling, T., & Slovic, P. (2006). Affect and decision making: A "hot" topic. *Journal of Behavioral Decision Making*, *19*(2), 79-85.

Phelps, E. A., LaBar, K. S., Anderson, A. K., O'connor, K. J., Fulbright, R. K., & Spencer, D. D. (1998). Specifying the contributions of the human amygdala to emotional memory: A case study. *Neurocase*, *4*(6), 527-540.

Robinson, C. J., & Altarriba, J. (2014, December). The interrelationship between emotion, cognition, and bilingualism. In *Yearbook of the Poznan linguistic meeting* (Vol. 1, No. 1, pp. 103-117). De Gruyter Open.

Russell, J. A. (1980). A circumplex model of affect. *Journal of personality and social psychology*, *39*(6), 1161.

Russell, J. A (2003). Core affect and the psychological construction of emotion. *Psychological review*, *110(1), 145.*

Scherer, K. R. (2009). The dynamic architecture of emotion: Evidence for the component process model. *Cognition and emotion*, *23*(7), 1307-1351.

Scherer K. R. (2010). "The component process model: a blueprint for a comprehensive computational model of emotion," in Blueprint for Affective Computing: A Sourcebook, eds Scherer K. R., Bänziger T., Roesch E. B., editors. (Oxford: Oxford University Press;), 47–70

Schupp, H. T., Stockburger, J., Codispoti, M., Junghöfer, M., Weike, A. I., & Hamm, A. O. (2007). Selective visual attention to emotion. *Journal of neuroscience*, *27*(5), 1082-1089.

Shen, L., Wang, M., & Shen, R. (2009). Affective e-learning: Using" emotional" data to improve learning in pervasive learning environment. *Journal of Educational Technology & Society*, *12*(2), 176.

Shuman, V., Sander, D., & Scherer, K. R. (2013). Levels of valence. *Frontiers in Psychology*, *4*, 261.

Solomon, R. C., & Stone, L. D. (2002). On "positive" and "negative" emotions. *Journal for the Theory of Social Behaviour*, *32*(4), 417-435.

Swain, M. (2011). The inseparability of cognition and emotion in second language learning. *Language Teaching*, *46*(2), 195-207.

Tyng, C. M., Amin, H. U., Saad, M. N., & Malik, A. S. (2017). The influences of emotion on learning and memory. *Frontiers in psychology*, *8*, 1454.

Um, E., Plass, J. L., Hayward, E. O., & Homer, B. D. (2012). Emotional design in multimedia learning. *Journal of educational psychology*, *104*(2), 485.

Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of marketing research*, *40*(3), 310-320.

Vuilleumier, P. (2005). How brains beware: neural mechanisms of emotional attention. *Trends in cognitive sciences*, *9*(12), 585-594.

Warriner, A. B., Kuperman, V., & Brysbaert, M. (2013). Norms of valence, arousal, and dominance for 13,915 English lemmas. *Behavior research methods*, *45*(4), 1191-1207.

Williams, M. & Burden, R. (1997). *Psychology for language teachers.* Cambridge: Cambridge University Press.

Appendices

Appendix 1 – Word set A

Words	Val.	Freq.	Length	Log.Freq. HAL	Log.Freq. SUBTLWF	Log.Freq. SUBTLCD	Quart.
ache	2.46	6741	4	6.741	2.107	2.057	1
anguished	2.12	4984	9	4.984	1.146	1.146	1
annoy	2.74	8262	5	8.262	2.111	2.065	1
bankrupt	2	7725	8	7.725	2.158	2.1	1
beggar	3.22	6525	6	6.525	2.104	1.945	1
burdened	2.5	6157	8	6.157	1.532	1.491	1
coffin	2.56	8189	6	8.189	2.665	2.408	1
corpse	2.18	7593	6	7.593	2.713	2.575	1
damage	3.05	10659	6	10.659	3.227	3.071	1
deceit	2.9	6825	6	6.825	1.982	1.935	1
delayed	3.07	8513	7	8.513	2.439	2.386	1
dreadful	2.26	7210	8	7.21	2.612	2.498	1
dreary	3.05	6011	6	6.011	1.969	1.94	1
fear	2.76	10450	4	10.45	3.547	3.282	1
feeble	3.26	7102	6	7.102	1.94	1.898	1
filth	2.47	6939	5	6.939	2.366	2.201	1
flabby	2.66	5193	6	5.193	1.623	1.556	1
Foul	2.81	8312	4	8.312	2.869	2.671	1
gloom	1.88	8053	5	8.053	1.778	1.732	1
grief	1.69	8270	5	8.27	2.743	2.654	1
jealousy	2.51	7311	8	7.311	2.468	2.362	1
menace	2.88	7176	6	7.176	2.281	2.185	1
riot	2.96	7735	4	7.735	2.521	2.403	1
upset	2	9337	5	9.337	3.58	3.372	1
waste	2.93	10207	5	10.207	3.434	3.293	1
alimony	3.95	5740	7	5.74	2.124	1.949	2
beast	4.23	9705	5	9.705	3.098	2.743	2
bland	4.1	7425	5	7.425	1.748	1.532	2
carcass	3.34	6219	7	6.219	1.903	1.826	2
cellar	4.32	7037	6	7.037	2.68	2.373	2
coarse	4.55	7167	6	7.167	1.845	1.806	2
crutch	3.43	6384	6	6.384	1.833	1.732	2
derelict	4.28	5187	8	5.187	1.613	1.532	2
detached	3.86	7086	8	7.086	1.903	1.851	2
disdainful	3.68	4419	10	4.419	0.602	0.602	2
dustpan	3.98	2303	7	2.303	1.146	1.041	2

gossip	3.48	7506	6	7.506	2.6	2.452	2
haphazard	4.02	5697	9	5.697	1.041	1.00	2
insolent	4.35	4771	8	4.771	1.792	1.732	2
mold	3.55	8229	4	8.229	2.342	2.188	2
needle	3.82	8527	6	8.527	2.785	2.637	2
nuisance	3.27	7233	8	7.233	2.218	2.155	2
plain	4.39	10066	5	10.066	3.047	2.921	2
pressure	3.38	10255	8	10.255	3.433	3.219	2
skull	4.27	8896	5	8.896	2.876	2.702	2
snob	3.36	6116	4	6.116	2.049	1.94	2
tamper	4.1	5617	6	5.617	1.415	1.415	2
wasp	3.37	6667	4	6.667	1.869	1.644	2
weary	3.79	7043	5	7.043	2.328	2.212	2
wink	3.93	7309	4	7.309	2.258	2.079	2
aloof	4.9	5908	5	5.908	1.532	1.462	3
appliance	5.1	6704	9	6.704	1.623	1.544	3
bereavement	4.57	5118	11	5.118	1.38	1.322	3
busybody	5.17	4007	8	4.007	1.505	1.462	3
church	6.28	10801	6	10.801	3.551	3.127	3
cliff	4.67	8543	5	8.543	3.042	2.582	3
cottage	6.45	7184	7	7.184	2.433	2.218	3
dawn	6.16	9022	4	9.022	3.115	2.841	3
foam	6.07	8205	4	8.205	2.255	2.149	3
golfer	5.61	6372	6	6.372	1.756	1.602	3
hawk	5.88	8188	4	8.188	2.814	2.398	3
jug	5.24	6730	3	6.73	2.13	1.881	3
limber	5.68	4635	6	4.635	1.634	1.58	3
prairie	5.75	7354	7	7.354	2.158	1.929	3
rattle	5.03	7118	6	7.118	2.238	2.155	3
reverent	5.35	4615	8	4.615	1.079	1.041	3
rough	4.74	9225	5	9.225	3.281	3.161	3
sphere	5.33	9426	6	9.426	2.104	1.681	3
subdued	4.67	6472	7	6.472	1.519	1.519	3
swamp	5.14	8649	5	8.649	2.662	2.312	3
thought	6.39	12072	7	12.072	4.615	3.894	3
trunk	5.09	8093	5	8.093	3.005	2.75	3
vest	5.25	7121	4	7.121	2.455	2.31	3
voyage	6.25	7733	6	7.733	2.487	2.305	3
wagon	5.37	8213	5	8.213	2.958	2.671	3
ace	6.88	8849	3	8.849	2.876	2.508	4
astonished	6.56	6974	10	6.974	1.69	1.623	4
awed	6.7	5576	4	5.576	0.845	0.845	4
bliss	6.95	7704	5	7.704	2.207	2.079	4

comfort	7.07	8778	7	8.778	2.944	2.841	4
cozy	7.39	6588	4	6.588	2.461	2.401	4
cuddle	7.72	6389	6	6.389	2.045	1.949	4
dazzle	7.29	5533	6	5.533	1.716	1.644	4
delight	8.26	8073	7	8.073	2.461	2.377	4
devoted	7.41	9165	7	9.165	2.613	2.534	4
elated	7.45	5505	6	5.505	1.176	1.146	4
flirt	7.52	6146	5	6.146	2.303	2.233	4
gentle	7.31	8809	6	8.809	2.927	f	4
grin	7.4	9083	4	9.083	2.143	2.076	4
leisurely	6.88	6068	9	6.068	1.477	1.462	4
mind	6.68	11784	4	11.784	4.393	3.837	4
peace	7.72	10607	5	10.607	3.55	3.271	4
pleasure	8.28	9733	8	9.733	3.615	3.406	4
prestige	7.26	7440	8	7.44	1.851	1.716	4
thrill	8.05	7851	6	7.851	2.634	2.547	4
twilight	7.23	7869	8	7.869	2.196	2.061	4
wise	7.52	9506	4	9.506	3.162	3.02	4
wit	7.32	8329	3	8.329	2.481	2.358	4
yacht	6.95	6914	5	6.914	2.623	2.297	4
zest	6.79	5663	4	5.663	1.556	1.462	4

Note: Valence (Val.), word frequency (Freq.), word length (Length), logarithmic word frequency per million (Log. Freq.HAL), quartile (Quart.)

Appendix 2: Survey "Dimensions of emotions in language learning"

SECTION 1: INTRODUCTION

Greetings,

We are conducting a survey as part of our dissertation which intends to understand how emotions influence second language learning. It is important to emphasize that your personal information and responses will be kept completely confidential. This survey takes around 10 minutes and; even though, there is no monetary compensation for participating in this study; your participation will be a valuable addition to our research.

*Obligatory

Mail *

_____

Please, confirm that you are willing to participate in the survey

Yes: ____
No: ____

SECTION 2: PERSONAL INFORMATION

Full name: _____

Rut: _____

Age: _____

Gender: Male: _____ Female: _____

Occupation: _____

English Level

Instructions: Rate your level of English in the different skills from 1 (elementary) to 7 (proficient user).

Speaking

Elementary	1	2	3	4	5	6	7	Proficient user

Writing

Elementary	1	2	3	4	5	6	7	Proficient user

Listening

Elementary	1	2	3	4	5	6	7	Proficient user

Reading

Elementary	1	2	3	4	5	6	7	Proficient user

SECTION 3: SURVEY

Instructions: This survey contains 100 words. You need to determine how well you know these words in a likert scale from 1 to 7. Please, read carefully each word and decide how much you know the word in question; then, click the appropriate value for your answer.

Answer Scale:

1. I don't know this word.
2. I slightly know this word.
3. I somewhat know this word.
4. I know this word.
5. I know this word well.
6. I know this word very well.
7. I know this word perfectly.

1. **Ace**

I don't know this word	1	2	3	4	5	6	7	I know this word perfectly

Appendix 3 – Word set B

Words	Val.	Freq.	Length	Log. Freq. HAL	Log. Freq. SUBTLWF	Log. Freq. SUBTLCD	Quart.
Annoy	2.74	8262	5	8.262	2.111	2.065	1
Bankrupt	2	7725	8	7.725	2.158	2.1	1
Coffin	2.56	8189	6	8.189	2.665	2.408	1
Corpse	2.18	7593	6	7.593	2.713	2.575	1
Delayed	3.07	8513	7	8.513	2.439	2.386	1
Dreadful	2.26	7210	8	7.21	2.612	2.498	1
Feeble	3.26	7102	6	7.102	1.94	1.898	1
Foul	2.81	8312	4	8.312	2.869	2.671	1
Gloom	1.88	8053	5	8.053	1.778	1.732	1
Grief	1.69	8270	5	8.27	2.743	2.654	1
Jealousy	2.51	7311	8	7.311	2.468	2.362	1
Menace	2.88	7176	6	7.176	2.281	2.185	1
Riot	2.96	7735	4	7.735	2.521	2.403	1
Upset	2	9337	5	9.337	3.58	3.372	1
Beast	4.23	9705	5	9.705	3.098	2.743	2
Bland	4.1	7425	5	7.425	1.748	1.532	2
Cellar	4.32	7037	6	7.037	2.68	2.373	2
Coarse	4.55	7167	6	7.167	1.845	1.806	2
Detached	3.86	7086	8	7.086	1.903	1.851	2
Gossip	3.48	7506	6	7.506	2.6	2.452	2
Mold	3.55	8229	4	8.229	2.342	2.188	2
Needle	3.82	8527	6	8.527	2.785	2.637	2
Nuisance	3.27	7233	8	7.233	2.218	2.155	2
Skull	4.27	8896	5	8.896	2.876	2.702	2
Weary	3.79	7043	5	7.043	2.328	2.212	2
Wink	3.93	7309	4	7.309	2.258	2.079	2
Cottage	6.45	7184	7	7.184	2.433	2.218	3
Dawn	6.16	9022	4	9.022	3.115	2.841	3
Foam	6.07	8205	4	8.205	2.255	2.149	3
Hawk	5.88	8188	4	8.188	2.814	2.398	3
Prairie	5.75	7354	7	7.354	2.158	1.929	3
Rattle	5.03	7118	6	7.118	2.238	2.155	3
Rough	4.74	9225	5	9.225	3.281	3.161	3
Sphere	5.33	9426	6	9.426	2.104	1.681	3
Swamp	5.14	8649	5	8.649	2.662	2.312	3
Trunk	5.09	8093	5	8.093	3.005	2.75	3
Vest	5.25	7121	4	7.121	2.455	2.31	3
Voyage	6.25	7733	6	7.733	2.487	2.305	3
Wagon	5.37	8213	5	8.213	2.958	2.671	3

Ace	6.88	8849	3	8.849	2.876	2.508	4
Bliss	6.95	7704	5	7.704	2.207	2.079	4
Comfort	7.07	8778	7	8.778	2.944	2.841	4
Delight	8.26	8073	7	8.073	2.461	2.377	4
Devoted	7.41	9165	7	9.165	2.613	2.534	4
Gentle	7.31	8809	6	8.809	2.927	f	4
Grin	7.4	9083	4	9.083	2.143	2.076	4
Pleasure	8.28	9733	8	9.733	3.615	3.406	4
Prestige	7.26	7440	8	7.44	1.851	1.716	4
Thrill	8.05	7851	6	7.851	2.634	2.547	4
Twilight	7.23	7869	8	7.869	2.196	2.061	4
Wise	7.52	9506	4	9.506	3.162	3.02	4
Wit	7.32	8329	3	8.329	2.481	2.358	4

Note: Valence (Val.), word frequency (Freq.), word length (Length), logarithmic word frequency per million (Log. Freq.HAL), quartile (Quart.)

UNIVERSIDAD CATOLICA
DE LA SANTISIMA CONCEPCION
FACULTAD DE EDUCACION

PAUTA PARA EVALUAR SEMINARIO DE INVESTIGACIÓN

NOMBRE DEL EVALUADOR	Christian Peake
TÍTULO DEL SEMINARIO EVALUADO:	Effects of valence on vocabulary knowledge in second language learners
ESTUDIANTE (S) AUTOR (ES) DEL SEMINARIO	Natalia Cuevas Pérez Nicolás Ortiz Matamala Felipe Mejía Pérez Farah Sufán Martínez
CARRERA	Pedagogía en Educación Media en Inglés
PROFESOR GUÍA	Dr. Roberto Ferreira

Nota: Evalúe de 1.0 a 7.0 cada uno de los indicadores que se presentan esta pauta.

A. De La Formulación Del Problema (25%)

INDICADORES	Nota
1. Construcción del objeto de estudio a partir de la presentación de antecedentes empíricos, contextuales y teóricos.	7.0
2. Supuestos o hipótesis de trabajo en correspondencia con el objeto de estudio.	5.5
3. Objetivos formulados con claridad y coherentes con el problema y el objeto de estudio.	7.0
4. Relevancia del problema de investigación en el contexto de las disciplinas pedagógicas.	7.0
5. Adecuada identificación y/o definición operacional de variables y/o categorías de análisis.	6.8
6. Fundamentación y justificación del problema basado en antecedentes bibliográficos y de trabajos de investigación relevantes en el campo de estudio.	7.0
Promedio	**6.7**

B. Del Marco Teórico Referencial (20%)

INDICADORES	Nota
1. Pertinencia y relevancia de la bibliografía (si corresponde a las disciplinas pedagógicas, actualizadas).	7.0
2. Uso del lenguaje técnico coherente con la temática estudiada.	7.0
3. Calidad y precisión del marco teórico/ Conceptual.	7.0
Promedio	**7.0**

C. Del Diseño Metodológico Del Problema (20%)

INDICADORES	Nota
1. Precisión del enfoque o modelo de investigación.	7.0
2. Presentación del método de investigación y su diseño.	7.0
3. Coherencia entre el enfoque investigativo, las fuentes de recogida de datos y el problema estudiado.	7.0
4. Precisión en la descripción de la población objetivo o de los participantes, su rol y función que cumplen en la investigación.	7.0
5. Precisión de las estrategias y técnicas de recogida de datos.	7.0
6 Descripción del procedimiento investigativo y/o escenarios donde se realiza la investigación.	7.0
7. Control de validez y confiabilidad y/o de credibilidad y consistencia interna de la información.	7.0
8 Consistencia entre unidad de análisis, fuentes y técnicas de análisis de la información.	7.0
Promedio	**7.0**

D. Del Contenido Temático y Los Resultados De La Investigación (25%)

INDICADORES	Nota
1. Procesamiento, análisis e interpretación pertinentes de los resultados o hallazgos de investigación .	6.9
2. Presentación de los hallazgos o resultados de forma clara y sintética.	7.0
3. Discusión de los resultados de la investigación.	7.0
4. Conclusiones sustentadas en los resultados o hallazgos.	7.0
5. Explicitación de las proyecciones y de las limitaciones del estudio.	7.0
6. Congruencia entre conclusiones, discusión y sugerencias que se realiza a partir de los resultados o hallazgos de la investigación.	7.0
Promedio	**7.0**

E. De Los Aspectos Formales (10%)

INDICADORES	Nota
1. Títulos pertinentes y sintéticos.	7.0
2. Estructura organizada de los contenidos atendiendo al enfoque y método investigativo.	7.0
3. Correcto uso de ortografía.	7.0
4. Coherencia en la redacción.	7.0
5. Sistematización en la formulación de citas y referencias bibliográficas.	7.0
6. Uso del sistema de citas bibliográficas, de acuerdo a normas APA.	7.0
Promedio	**7.0**

2. RESUMEN DE LA EVALUACIÓN

Aspectos	Ponderación	Nota	Puntaje porcentual
A. De la Formulación del problema	25%	6.7	1.67
B. Del Marco Teórico referencial	20%	7.0	1.4
C. Del Diseño Metodológico de la investigación	20%	7.0	1.4
D. Del Contenido Temático y los Resultados	25%	7.0	1.75
E. De los aspectos formales	10%	7.0	0.7
Nota promedio final			**6.9**

3. OBSERVACIONES O COMENTARIO DE SÍNTESIS.

Resuma su opinión global en un comentario, que a su juicio, revele los aspectos más sobresalientes, tanto en lo referido a las fortalezas, como a las debilidades de este Seminario de Investigación, o indique las modificaciones que a su juicio deben realizarse a este trabajo para proceder a su calificación final.

Este trabajo de tesis es pertinente para la pedagogía en educación diferencial y demuestra una capacidad de revisión teórica, reflexión y desarrollo de trabajo de investigación muy altos. Los tesistas demuestran haberse enfrentado a una investigación con implicaciones pedagógicas a partir de enfoques teóricos alejados a priori de la disciplina, como es la psicología cognitiva, alcanzando un muy buen resultado. Cabe destacar el buen nivel en la redacción, desde el punto de vista de la coherencia, los aspectos formales y el uso de la lengua inglesa. Creo que se debe señalar también el elevado número de muestra (n = 105) para una tesis de pregrado, lo que demuestra, además, el alto nivel de trabajo en cuanto a al recogida de datos.

Con todo, me permito hacer algunas críticas constructivas que podrían mejorar el trabajo: encuentro que hay una ligera incoherencia entre las preguntas y los objetivos específicos con las hipótesis formuladas después. Específicamente, se pretende estudiar el efecto de palabras con valencia positiva y negativa sobre el conocimiento de estas palabras, pero se hipotetiza que las palabras positivas y negativas se conocerán mejor que las palabras neutrales (que no fueron contempladas en la formulación de los objetivos). Además, en la tabla 3 se muestran las correlaciones entre los niveles de dominio de la lengua inglesa con los datos recogidos sobre el conocimiento de las palabras objeto de estudio, pero no se explica cómo se ha evaluado el dominio de la lengua inglesa en los participantes. Esto debería detallarse también en los instrumentos. Por último, la tabla 5 muestra las comparaciones múltiples entre las diferentes categorías de valencia de las palabras utilizadas, pero no se explica el análisis utilizado en dichas comparaciones.

Aprobada en Consejo de Facultad / abril de 2011

Fecha:

FIRMA PROFESOR EVALUADOR

UNIVERSIDAD CATOLICA
DE LA SANTISIMA CONCEPCION
FACULTAD DE EDUCACION

PAUTA PARA EVALUAR SEMINARIO DE INVESTIGACIÓN

NOMBRE DEL EVALUADOR	DR. JUAN MOLINA FARFÁN
TÍTULO DEL SEMINARIO EVALUADO:	**Effects of valence on vocabulary knowledge in second language learners**
ESTUDIANTE (S) AUTOR (ES) DEL SEMINARIO	Natalia Cuevas Pérez, Nicolás Ortiz Matamala, Felipe Mejís Pérez y Farah Sufán Martínez
CARRERA	Pedagogía en Educación Media en Inglés
PROFESOR GUÍA	Dr. Roberto Ferreira Campos.

Nota: Evalúe de 1.0 a 7.0 cada uno de los indicadores que se presentan esta pauta.

A. De La Formulación Del Problema (25%)

INDICADORES	**Nota**
1. Construcción del objeto de estudio a partir de la presentación de antecedentes empíricos, contextuales y teóricos.	7.0
2. Supuestos o hipótesis de trabajo en correspondencia con el objeto de estudio.	6.8
3. Objetivos formulados con claridad y coherentes con el problema y el objeto de estudio.	7.0
4. Relevancia del problema de investigación en el contexto de las disciplinas pedagógicas.	6.8
5. Adecuada identificación y/o definición operacional de variables y/o categorías de análisis.	6.8
6. Fundamentación y justificación del problema basado en antecedentes bibliográficos y de trabajos de investigación relevantes en el campo de estudio.	7.0
Promedio	**6.9**

B. Del Marco Teórico Referencial (20%)

INDICADORES	**Nota**
1. Pertinencia y relevancia de la bibliografía (si corresponde a las disciplinas pedagógicas, actualizadas).	7.0
2. Uso del lenguaje técnico coherente con la temática estudiada.	7.0
3. Calidad y precisión del marco teórico/ Conceptual.	7.0
Promedio	**7.0**

C. Del Diseño Metodológico Del Problema (20%)

INDICADORES	**Nota**
1. Precisión del enfoque o modelo de investigación.	6.8
2. Presentación del método de investigación y su diseño.	7.0
3. Coherencia entre el enfoque investigativo, las fuentes de recogida de datos y el problema estudiado.	7.0
4. Precisión en la descripción de la población objetivo o de los participantes, su rol y función que cumplen en la investigación.	6.8
5. Precisión de las estrategias y técnicas de recogida de datos.	7.0
6. Descripción del procedimiento investigativo y/o escenarios donde se realiza la investigación.	7.0
7. Control de validez y confiabilidad y/o de credibilidad y consistencia interna de la información.	7.0
8. Consistencia entre unidad de análisis, fuentes y técnicas de análisis de la información.	7.0
Promedio	**6.9**

D. Del Contenido Temático y Los Resultados De La Investigación (25%)

INDICADORES	**Nota**
1. Procesamiento, análisis e interpretación pertinentes de los resultados o hallazgos de investigación.	6.8
2. Presentación de los hallazgos o resultados de forma clara y sintética.	7.0
3. Discusión de los resultados de la investigación.	6.8

4.	Conclusiones sustentadas en los resultados o hallazgos.	6.8
5.	Explicitación de las proyecciones y de las limitaciones del estudio.	6.8
6.	Congruencia entre conclusiones, discusión y sugerencias que se realiza a partir de los resultados o hallazgos de la investigación.	7.0
	Promedio	**6.9**

E. De Los Aspectos Formales (10%)

INDICADORES		**Nota**
1.	Títulos pertinentes y sintéticos.	7.0
2.	Estructura organizada de los contenidos atendiendo al enfoque y método investigativo.	7.0
3.	Correcto uso de ortografía.	7.0
4.	Coherencia en la redacción.	6.6
5.	Sistematización en la formulación de citas y referencias bibliográficas.	7.0
6.	Uso del sistema de citas bibliográficas, de acuerdo a normas APA.	7.0
Promedio		**6.9**

2. RESUMEN DE LA EVALUACIÓN

Aspectos	**Ponderación**	**Nota**	**Puntaje porcentual**
A. De la Formulación del problema	25%	**6.9**	1.725
B. Del Marco Teórico referencial	20%	**7.0**	1.4
C. Del Diseño Metodológico de la investigación	20%	**6.9**	1.38
D. Del Contenido Temático y los Resultados	25%	**6.9**	1.725
E. De los aspectos formales	10%	**6.9**	0.69
Nota promedio final			**6.9**

3. OBSERVACIONES O COMENTARIO DE SÍNTESIS.

Resuma su opinión global en un comentario, que a su juicio, revele los aspectos más sobresalientes, tanto en lo referido a las fortalezas, como a las debilidades de este Seminario de Investigación, o indique las modificaciones que a su juicio deben realizarse a este trabajo para proceder a su calificación final.

Este estudio investigativo cumple con todos los requerimientos académicos, de formato y estándares de un seminario de pregrado en la Facultad de Educación. La temática de vocabulario es un tema relevante en nuestro país y es muy importante de abordar. En cuanto a su estructura, el trabajo está bien diseñado y bien desarrollado. Responde al formato APA en sus citas, tablas y gráficos. Hay algunas observaciones menores que se detallan en el texto. La mayor fortaleza del trabajo está en el soporte teórico y el planteamiento metodológico que orienta el estudio. Es también destacable el nivel de inglés en su redacción.

Aprobada en Consejo de Facultad / abril de 2011

FIRMA PROFESOR EVALUADOR

Fecha: 05 de octubre de 2018.