# The Correlation between Translation Equivalence, as a Vocabulary Learning Strategy, and Tunisian EFL Learners' Speaking Anxiety

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**Abstract:** The use of the native language in the foreign language learning process has evoked controversy since the last century. The present research will argue for the use of translation by foreign language learners by investigating the correlation between translation equivalence as a vocabulary learning strategy, and the learners' level of foreign language speaking anxiety. A sample of 258 Tunisian students, chosen randomly from different preparatory schools, participated in this project. Four research instruments were used to investigate this correlation: the inventory for translation as a learning strategy (ITLS), the classroom-related foreign language speaking anxiety scale (CRFLSAS), a receptive Translation Equivalence (TE) vocabulary test, and a productive TE vocabulary test. The findings revealed that the majority of the participants reported relying on their mother language to learn English vocabulary. Furthermore, a strong linear negative correlation was found between the use of this strategy, at both the receptive and productive levels, and the learners' foreign language speaking anxiety.

## 1. Introduction

Vocabulary knowledge is the most important component of linguistic knowledge, because without sufficient vocabulary, students cannot communicate with others; they can neither understand others nor express their own ideas. Wilkins (1972, pp. 111–12) considers that without grammar, very little can be conveyed, but without vocabulary, nothing can be conveyed. Schmitt (2010, p. 4) noted that learners carry around dictionaries and not grammar books.

Therefore, understanding the process of bilingual/multilingual vocabulary acquisition, the interactions between lexica within the learner's mind, and their impact on the psychology of the learners, will contribute to the success of the learning process. This, in fact, helps teachers to be aware of their students' strengths and weaknesses in English vocabulary; consequently, teachers will have a chance to start to expand students' knowledge and strengthen weaker areas.

Indeed, the use of the native language (L1) in the English as a Foreign Language (EFL) setting has evoked different opinions since the last century. Traditional assumptions, especially those of most 20th century researchers dating back to the pedagogical approach known as the Direct Method, considered that L1 should be avoided in the EFL classroom (e.g., McDonald 1993; Duff and Polio 1990; Auerbach 1993). Although there were some exceptions that advocated the use of the native language in foreign language learning/teaching, such as Dodson's Bilingual Method and the Community Language Learning, ELT methods, in the last century, were mainly target-language-oriented, and translation was ignored either as a valid activity for language practice and improvement or as a useful learning strategy in vocabulary development.

Recently, there has been a great shift, and not only are L1 translation equivalents (TEs) becoming an effective way to map foreign language items, but they are also providing a significant support, mainly for beginners. Cook (2010, p. xv), for instance, considers that for most contemporary learners, translation should be a major aim and means of language learning, and a major measure for success. Naiman et al. (1978) described translation as one of the learning strategies used by good learners.

TE is an interlingual cognitive strategy used by foreign language (L2) learners which makes use of the L1 in the process of learning foreign language vocabulary. This learning strategy is, from the researcher's observations, used by Tunisian learners of English as a foreign language (EFL) in both receptive (reading and listening) and productive (speaking and writing) skills. Indeed, they either try to search for equivalents in their L1 during receptive tasks, or they think in their native language (Arabic) and translate their thoughts into English during productive activities.

In this controversial situation, in which opposing opinions have arisen, and since very little research has dealt with the impact of the conceptual translation equivalence (TE) on learners' speaking skills, this research investigates this phenomenon and tries to argue for the use of translation equivalence by EFL learners during in-class speaking tasks. It studies the correlation between translation equivalence as a learning strategy to enhance vocabulary knowledge, and the learners' level of foreign language speaking anxiety (FLSA), in an experimental setting and within the framework of the lexical networks of the multilingual mental lexicon.

## 2. Research Questions

In order to achieve the goal of this study, the following questions were addressed:

RQ1. What kinds of strategies employing translation do Tunisian EFL learners report using?

RQ2. Is there a significant relationship between the Tunisian learners' achievements in the receptive TE vocabulary test and their level of Foreign Language Speaking Anxiety?

(Null hypothesis: There is no significant relationship between the Tunisian learners' achievement in the receptive TE vocabulary test and the level of Foreign Language Speaking Anxiety).

RQ3. Does the use of TE in productive tasks significantly correlate with the level of foreign language speaking anxiety experienced by Tunisian learners of English?

(Null hypothesis: The use of TE in productive tasks does not correlate with the level of foreign language speaking anxiety of Tunisian learners of English).

## 3. Theoretical Background

### 3.1. Defining Translation Equivalence

Translation is commonly conceived as transferring meanings and conveying messages. In the process of second/foreign language learning, it is considered a strategy for language learning at different levels. Oxford (1990, p. 46) defined translating as:

> converting the target language expression into the native language (at various levels, from words and phrases all the way up to whole texts); or converting the native language into the target language; using one language as the basis for understanding or producing another.

Indeed, the construction of bilingual or multilingual lexica, particularly for young learners and beginners, is carried out by establishing translation links between lexical items in L1 and their equivalents in the target language. TEs are words that learners acquire in each of their languages for the same concept. Deuchar and Quay (2000) identified TEs as the learner's interchangeable use of one word for another to refer to the same object, event, or process.

Milton and Masrai (2015a, p. 1) considered that critical vocabulary acquisition is established through mapping L2 words from the existing L1 meaning, and they classified L2 acquired words into two categories; those with direct TEs and those with non-direct TEs.

Snell-Hornby (1988, p. 17) maintained that the word 'equivalence' has been used in English as a technical term to refer to a number of processes. For instance, it indicates the relationship of absolute equality, in mathematics, that involves guaranteed reversibility. However, this word can also be used in the general vocabulary of English to denote 'similar significance' between words. Therefore, 'equivalence' can be considered as a measure of semantic similarity between lexical items in different languages.

Philosophically speaking, no two absolutely identical things exist. Nida (1986, p. 60) supports this opinion by stating that there are no stones that are alike and no flowers that are the same. Ivir (1981, p. 53) defines 'equivalence' as a matter of relational dynamics in a communicative act and compares it to a person's signature that comes out a little different visually in the act of signing, yet it is recognized as being the same, as long as the characteristic features are preserved to ensure its 'equivalence'.

So, as far as languages are concerned, there are no absolute synonyms within one language, and there are no two words in two languages that are completely identical in meaning. Equivalence refers to the semantic similarities between words in two different languages. Since translation is a phenomenon that concerns the interaction between two or more languages, it is necessary to understand it within the framework of the bilingual/multilingual mental lexicon. The following section will try to explain this phenomenon in relation to the mental lexicon.

### 3.2. Translation Equivalence within the Scope of the Bilingual/Multilingual Mental Lexicon

The mental lexicon is a kind of internal dictionary that includes not only the entries of the lexical items, but also all the linguistic information about the words such as its semantic content, syntactic properties and phonological shape (Navracsics 2007, p. 1). In fact, it is a multi-dimensional cognitive faculty existing within the individual's consciousness and incorporating the whole capacity of linguistic and extra-linguistic knowledge. It is a complex structure where words are organized in terms of their phonology, syntax, semantics as well as other non-linguistic aspects. Bruza et al. (2009, p. 363) stated that the mental lexicon refers to words that constitute a language which is characterized by the associative links between its lexical items. Hulstijn (2000, p. 210) defines it as the memory system storing a very large number of words accumulated over the course of time. Schmitt (2014, p. 913) considers the mental lexicon as a complex phenomenon that can hold thousands of words which are linked to each other in the lexical network. Also, Fortescue's Network Model of lexical organization in the bilingual brain assumes that the mental lexicon is organized by interrelated networks; he considers that the lexical networks in both languages, L1 and L2, are intertwined, and that mediatory word columns for near-equivalent words are located in proximity to each other in the same association areas of the cortex (Fortescue 2014, p. 118).

Concerning its organization, dozens of empirical studies have been conducted and a considerable literature has emerged over the past decades to investigate whether the two lexica of the two languages are separate or shared systems (Westbury and Hollis 2007, p. 9). Some linguists attempted to collect information by studying various speakers' behaviors such as tip-of-the-tongue and slips-of-the-tongue phenomena (Aitchison 1987, pp. 22–23), and others tried to do so by analysing communication strategies used by L2/FL learners.

The Separate Storage Model assumes that each of the words, in a translation pair, has its own conceptual representation. For instance, Lambert et al. (1968) supported this model after using questionnaires, recall tasks, and word association tasks, in their studies. Nevertheless, more recent studies that employed semantic categorization and lexical decision tasks have revealed the limitations in this model. Examples include Jin's research (Jin 1990, pp. 1142–43) who tested Korean–English adult bilinguals to compare the extent of cross-language priming for concrete and abstract word pairs. The findings of this study showed a reliable cross-language priming effect for concrete but not abstract words, suggesting that concrete translation equivalents are represented in a single common store, whereas abstract ones are represented in separate language-specific stores. Similarly, De Groot and Nas (1991, p. 90) conducted research on Dutch–English bilinguals and obtained data suggesting that

cognate translations share conceptual representations, but non-cognate translations have separate conceptual representations. In fact, De Groot and many of her colleagues (De Groot 1995; De Groot and Comijs 1995; De Groot and Hoeks 1995) proposed the Distributed Model which postulates that some word types have a shared storage while some others have a separate one; in other words, concrete and cognate words might share more conceptual nodes than abstract and non-cognate words.

The separate storage model and the distributed model stand in contrast with other models that advocated the shared storage system. In their empirical research on Chinese-English bilinguals and non-fluent English-French bilinguals studying in American high schools, Potter et al. (1984, pp. 23–24) proposed and tested two models of lexical organization in bilinguals: the concept mediation model and the word association model. They compared translation and picture naming in a highly fluent Chinese-English group of students and tested a group of less proficient bilinguals to check if the level of fluency would determine the interlanguage connection. The results of their research provided a clear support for the concept mediation model (Potter et al. 1984, pp. 26–32). Indeed, both models make the distinction between the lexical level, that is, representing word forms in a separate lexical store for L1 and for L2, and the conceptual level, that is, representing word meanings in one common store. The two models also assume a direct link between the L1 lexical store and the conceptual system. However, the models differ in their assumptions on the mapping between L2 word forms and their meaning. According to the concept mediation model, there is a direct link between L2 word forms and the conceptual system. In contrast, in the word association model, the mapping of L2 word forms to meaning is an indirect process that requires the mediation of L1 translation. Potter et al. (Potter et al. 1984, pp. 31–32) concluded that the mapping of L2 words is a direct process even for a relatively novice learner. Other researchers and experts criticized this conclusion, and argued that the two alternatives might characterize different stages of L2 proficiency. For example, Kroll and Stewart (1994, pp. 151–52) proposed the Revised Hierarchical Model (RHM) which provided a framework in which L1 translation equivalents might be useful under some circumstances especially in early learning stages, but once learners acquire a certain level of proficiency in L2, direct conceptual processing might take place. In other words, The RHM argues for the dynamic, bidirectional and asymmetric connections between the two lexica, and word forms in L1 are said to be connected to their respective meanings from the time of their acquisition; in contrast, word forms in L2 are first learned via their translation equivalents in L1. Hence, stronger connections between L2 words and their conceptual representations are meant to be formed only with increased proficiency in L2.

An alternative model of the bilingual mental lexicon that was developed by Dijkstra and his colleagues (Dijkstra and Van Heuven 1998, p. 189) is the Bilingual Interactive Activation Model (BIA). This model incorporates the non-selective bilingual lexical access. It is based on the connectionist model and assumes that words are interconnected within and across L1 and L2; that is to say, the integrated lexicon contains words from both languages, and that both of these languages are active during lexical access.

### 3.3. Translation Strategies Used by English as a Foreign Language Learners

Translation was found to be a frequently used learning strategy (O'Malley et al. 1985a, p. 39). Out of a total of 11 cognitive strategies identified by the researchers (O'Malley et al. 1985a), translation accounted for 11.3% of all strategy uses by beginning and intermediate-level ESL learners. Repetition represented 19.6% of strategy uses, note taking represented 18.7% and imagery 12.5% (O'Malley et al. 1985b, p. 568). Prince (1996, p. 478) conducted an experiment in which participants were tested on their recall of newly acquired vocabulary to determine the advantages and disadvantages of context learning and translation learning. The results revealed the superiority of using translation in learning vocabulary in terms of quantity of words learned, though weaker learners seemed to be unable to transfer their knowledge into L2 contexts. These studies showed that strategic learners can make intelligent use of the repertoire of their L1 skills and translation in order to learn a new language.

Liao (2002) developed the inventory for translation as a learning strategy (ITLS) in order to identify the translation strategies used by EFL learners. In his study about learners' beliefs about translation and its use as a strategy to learn English, Liao (2006) selected 351 students enrolled in a five-year junior college in central Taiwan to participate in his quantitative research. The results he obtained showed a medium use of translation as a learning strategy ($M$ = 3.35). The most used translation strategies, as reported by the learners, were employed to memorize new words ($M$ = 4.12; $SD$ = 0.99) and to learn English idioms and phrases ($M$ = 3.99; $SD$ = 0.94). Participants also reported using electronic translation machines ($M$ = 3.83; $SD$ = 1.06). During speaking, the rate of thinking in the target language (TL) without translating to L1 ($M$ = 3.56; $SD$ = 1.01) was slightly higher than thinking in the L1 and then translating into the TL ($M$ = 3.45; $SD$ = 1.15).

In a study investigating the associations between Iraqi EFL learners' beliefs about translation and its use as a learning strategy, Abdul Ridha (2014, p. 40) used the ITLS to collect data about the learners' use of translation strategies. With 28 items of inventory, she obtained a Cronbach's alpha of 0.712 indicating a good reliability level of the questionnaire (Abdul Ridha 2014, p. 41). The findings showed that the most frequently used strategies are item 1 ("when reading an English text, I first translate it into Arabic in my mind to help me understand its meaning") with $M$ = 3.73, item 13 ("I memorize the meaning of new English vocabulary words by remembering their Arabic translation".) with $M$ = 3.43, item 17 ("I use English-Arabic dictionaries to help myself learn English.") with $M$ = 3.43, and item 23 ("I practice mentally translating my thoughts from Arabic to English in various situations.") with $M$ = 3.30. Thus, translation is used by students to compensate for their inadequate knowledge in English, and to self-evaluate their performance during English tasks. The analysis of the responses to the ITLS items showed that the participants were relying heavily on translation as a method to learn English (Abdul Ridha 2014, pp. 44–45).

Karimian and Talebinejad (2013, p. 607) also used the ITLS to investigate Iranian students' use of translation as a learning strategy. The findings of their study showed that most of the participants reported using their mother tongue as a helping strategy in learning the target language. For instance, they reported that they employ mental translation in reading English texts and they emphasized that translation is helpful mostly in outlining their ideas and writings, in understanding the meanings of utterances in a piece of listening, and in learning English idioms and expressions.

Al-Musawi (2014, p. 1) developed an Arabic version of the Inventory for Translation as a Learning Strategy (AITLS) to explore the strategic use of translation by Bahraini undergraduate students in the process of learning English. The students' responses to the AITLS items indicated a medium level of the use of translation as a learning strategy ($M$ = 2.85). The strategies most frequently employed were enhancing English skills, using learning and technology aids (learners' resort to electronic machines, English-Arabic and Arabic-English dictionaries), and avoiding the use of Arabic in an English classroom (Arab students try not to think first in Arabic as their native language).

Mutlu et al. (2015, p. 240) conducted research to investigate the translation learning strategies used by Turkish learners. A sample of 118 students, studying at three different proficiency levels in an English preparatory school of a state university in Turkey, responded to the ITLS. The results of the research showed that Turkish EFL learners resort to translation when they are reading an English text and when they are writing a composition in English. They reported that they brainstorm and organize their ideas in Turkish, and then translate them into English in the speaking task. Also, they reported using translation and getting help from dictionaries in order to learn words, idioms and phrases in English. Additionally, the results of the responses of the participants showed that Turkish learners of English ask others for a suitable translation when they have problems in comprehension.

### 3.4. Translation Equivalence as Learners' Strategy to Develop FL Vocabulary

TE is a cognitive strategy used by learners for lexical processing and vocabulary enriching. Indeed, vocabulary learning strategies are part of language learning strategies used by second/foreign language learners in order to acquire new words and develop a lexicon. Accordingly, several researchers have

produced taxonomies of vocabulary learning strategies. For example, Schmitt's taxonomy (Schmitt 1997) represents the most comprehensive inventory of vocabulary learning strategies. He divides them into two groups: those to determine the meaning of new words encountered for the first time and those to consolidate them. The first group includes determination and social strategies and the second one includes cognitive, metacognitive, and memory strategies. Similarly, Gu (2003) classifies vocabulary learning strategies under four categories: cognitive, metacognitive, memory and activation strategies. According to this classification (Gu 2003), using first language equivalents is considered a cognitive strategy.

From this perspective, translation equivalence might play a significant role in FL vocabulary learning and development. However, it remains underexplored and few researchers focused on TE as a FL vocabulary knowledge tool. For instance, Poulin-Dubois et al. (2012) conducted research in which they compared lexical access and expressive/receptive vocabulary development in monolingual and bilingual toddlers. They focused on the relationship between vocabulary size, production of TE and lexical access in bilingual infants. The results revealed significant differences between monolingual and bilinguals' expressive vocabulary size in L1 and showed that bilinguals, with a higher proportion of translation equivalents in their expressive vocabulary, were faster in accessing words in the Computerized Comprehension Task.

Jiang (2004), in his research, dealt with the hypothesis that the L2 lexical forms are mapped to the existing content of their L1 translation equivalents. The findings of his study showed that L1 semantic content is present in L2 lexical entries. Form-meaning mapping in the mental lexicon and the sematic transfer and development in L2 acquisition were the focus of his research.

The main goal of the current study is to investigate the interaction between the learners' use of TE as a learning strategy and their FL speaking anxiety. The next section will introduce foreign language speaking anxiety.

## 3.5. Foreign Language Speaking Anxiety (FLSA)

One of the most important affective factors which influences the students' academic performance in second language learning is anxiety. Researchers in language learning and affective factors assert that language learning anxiety is the most important predictor, among the affective factors, of learners' performance and achievement (Liu and Huang 2011, p. 1). Therefore, foreign language anxiety has long been a major issue for language researchers and linguists. In fact, Scovel (1978, p. 132) considers that anxiety itself is neither a simple nor a well-understood psychological construct, particularly when we want to relate it to language acquisition. Hilgard and his colleagues (Hilgard et al. 1971) define it as an "apprehension, a vague fear that is only indirectly associated with an object". It is considered to be a fundamental human emotion (Spielberger 1972b, p. 3) and a condition which is characterized by subjective feeling of tension, apprehension, and heightened autonomic nervous system activity (Spielberger 1972a, p. 24).

Horwitz (2001) mentions three types of anxiety as classified in the literature: trait, state, and situation-specific anxiety. Trait anxiety is a personality feature in which the individual tends to be nervous in a wide range of situations (Spielberger 1983). State anxiety is the feelings of worry at a particular moment under particular circumstances (Spielberger 1983). In other words, state anxiety is a transient emotional condition in which the individual shows fear about a specific activity or situation (MacIntyre 1999). A situation-specific anxiety is similar to trait anxiety for it is stable over time. The main difference between the two is that situation-specific anxiety relates to only one specific situation; it is not stable in different situations and/or contexts. Public speaking anxiety is classified as a situation-specific anxiety (Horwitz et al. 1986, p. 125).

In terms of learning contexts and educational environment, speaking anxiety is part of foreign language anxiety since all four skill-based anxieties demonstrably contribute to general foreign language classroom anxiety (Horwitz 2001, p. 112; Pae 2013, p. 244). Horwitz et al. (1986, p. 127) explored speaking anxiety in relation to foreign language anxiety which is defined as "a distinct

complex of self-perceptions, feelings and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (Horwitz et al. 1986, p. 128).

Horwitz et al. (1986, p. 127) categorized three performance-related anxieties: communication apprehension, test anxiety, and fear of negative evaluation. Communication apprehension, also called 'stage fright', is defined as a type of shyness characterized by fear or anxiety to communicate with others and to talk in groups. Horwitz et al. (1986, p. 127) stated that "people who typically have trouble speaking in groups are likely to experience even greater difficulty speaking in a foreign language class where they have little control of the communicative situation and their performance is constantly monitored." The second category, named test anxiety, arises out of the fear of failing to perform. It can be explained through the high demands that students put on themselves to be perfect speakers of the foreign language. Finally, fear of negative evaluation can be explained as the student's expectation to be evaluated negatively by others in any kind of situation such as, oral exams, in-class presentations, or any interactions with teachers and peers.

Many studies have shown that learners' speaking-related anxiety is a feature of foreign/second language classrooms (Dewaele et al. 2008, p. 911; Yan and Horwitz 2008, pp. 151–52; Pawlak 2011, p. 154). Other researchers such as Lucas (1984, pp. 593–94); Horwitz et al. (1986, p. 126); MacIntyre and Gardner (1989, pp. 252–53); Young (1990, p. 539); Phillips (1992, p. 14); and Aida (1994, p. 156) claim that speaking in the target language seems to be a traumatic experience that causes feelings of fear and apprehension, and they consider this skill to be the most threatening aspect of foreign language learning because the lack of oral skills constitutes serious problems to language learners. For this reason, speaking anxiety may play a debilitating role in the foreign language learning process. Labov (1969) affirms that speaking in class is conceived by the students as an activity with "high-risk" and "low-gain". In fact, unlike writing, where the learner can write by himself/herself and at his/her own speed without disturbing the rest of the class (Brown and Yule 1983, p. 25), speaking is acknowledged by many researchers (e.g., Horwitz et al. 1986, p. 126; Young 1990, p. 539; Aida 1994, p. 156) to be one of the most anxiety-provoking activities in the process of foreign language learning, which involves more than one person.

Recently, many studies have determined the strong correlation between learners' strategies and the level of their language learning anxieties. Liu and Huang (2011, p. 113) stated that "foreign language learners [ . . . ] equip themselves with learning strategies that would help them not only to learn the target language but also to cope with their language learning anxieties". Other investigations focused on the factors leading to anxiety in the process of learning a foreign a language. Jen (2003) conducted research on secondary school students and found that the anxiety they experienced was due to factors such as personality features, fear of negative evaluation, low English proficiency, lack of preparation, pressure from the language instructor, pressure of tests, and parents' pressure. Chan and Wu (2004) mentioned similar factors including: anxious personality, fear of negative evaluation, low language proficiency, competitive games, and pressure of parents and self (Chan and Wu 2004).

Anxious students often experience blushing, trembling hands, a pounding heart and headaches (Cohen and Norst 1989, p. 61). They are often said to be less likely to communicate, volunteer answers, or participate in oral classroom activities (MacIntyre and Gardner 1991, p. 112). Some of them, with high levels of language anxiety, may even have a mental block (Del Villar 2010, p. 160; Argaman and Abu-Rabia 2002, p. 147). They may also display avoidance behaviors such as skipping classes or postponing their homework (Argaman and Abu-Rabia 2002, p. 147).

The following section addresses the relationship between the strategy of translation and the learners' level of in-class speaking anxiety in order to know whether there is a causal correlation between the two variables demonstrated in previous research, and whether the use of translating in the learning process reduces the learners' anxiety during speaking.

*3.6. Translation and English as a Foreign Language Learners' Foreign Language Speaking Anxiety*

Though research on FL speaking anxiety has recently increased, a very limited number of studies have tackled the relationship between translation and learners' feelings of anxiety during in-class speaking activities. Translation has usually been identified as one of the cognitive learning strategies (Chamot and Kupper 1989; Oxford 1990) with which learners receive, process, and transfer the target language based on the mother language to lower their anxiety resulting from learning (Pan and Pan 2012, pp. 9–10). Auerbach (1993, p. 20) confirms that the use of the mother tongue through translation reduces anxiety, creates a suitable affective environment for learning, and allows for learner-centered curriculum development.

Wenden (1986, p. 187) conducted research in which she selected a group of 25 adults who had lived in the United States for less than two years and who were enrolled in the advanced-level classes of the American Language Program at Columbia University. She interviewed them in order to investigate and classify their knowledge about their language learning. One of the findings of her research showed that learners who felt afraid or nervous because of speaking only English, often resort to translation to reduce these feelings. Participants in this study, who suffered from emotional discomfort such as nervousness and fear when they had to speak, stated that they construct the sentence in their language and then they translate it into the TL (Wenden 1986, p. 192).

Furthermore, Karimian and Talebinejad (2013, p. 608) carried out a study in which they focused on Iranian English learners' use of translation as a learning strategy to learn English. The results of their study indicated that translation plays a positive role in EFL classes and is a supporting factor in language pedagogy. It helps learners to improve their knowledge of English regarding different skills, provides them with security of mother tongue, and lowers their English learning anxiety.

In a similar way, Liao (2006, p. 201) provided a brief summary of the positive aspects of using translation as a learning strategy in foreign language learning. He stated that translating: (1) can help students comprehend the target language; (2) is useful in checking the learners' comprehension; (3) helps memorize more words, idioms, grammar, and sentence structures; (4) can help students develop and express ideas in another language; and (5) can help reduce learners' anxiety and enhance motivation to learn the target language.

Levine (2003) conducted an internet-based questionnaire study on target language and first language use in classes. In his study, he tested the two following hypotheses: (a) amounts of TL use would vary according to the group of interlocutors and communicative contexts, and (b) the amount of TL use would correlate positively with students' anxiety. The findings supported the first hypothesis. The second hypothesis was rejected since a negative relationship between the reported amounts of TL use and the learners' anxiety was revealed. In other words, greater TL use may not transfer to higher anxiety among students because many learners may feel relaxed with more TL use, because that is what they are accustomed to.

Hammad and Abu Ghali (2015, p. 61) investigated the speaking anxiety level of 61 EFL learners from Gaza using an open-ended questionnaire. Theyalso interviewed 6 EFL instructors. Their results revealed that learners suffered from high levels of anxiety. Among the causes of their anxiety, students reported that they were not used to utilizing only-English in the classrooms and that they excessively used Arabic during the early stages of learning. The researchers concluded that the use of the L1 should be reduced and the use of the target language should be maximized.

The purpose of this study is to investigate the relationship between translation as a pedagogical tool, and particularly as a learning strategy of L2 (English) vocabulary, and the Tunisian EFL learners' foreign language speaking anxiety during in-class speaking activities. The next section provides details about the research design, data collection methodology, the participants, and the analysis approach.

## 4. Materials and Methods

This research is an experimental quantitative study. It seeks to investigate the correlation between translation equivalence, as a vocabulary learning strategy, and foreign language speaking anxiety, in

an experimental setting. This research approach is to be of great practicality to describe conditions and investigate relations when dealing with causal phenomena.

### 4.1. Participants

The target population of this research is Tunisian 9th graders. They are all Tunisians with Arabic as their first language. Their ages range between 14 and 17. The 9th grade was their third year of studying English. There were 113 males and 145 females who belonged to six different preparatory schools in Tunisia. The rationale behind choosing this level is that, at this stage of learning in the Tunisian context, students are still considered as beginners, and their reliance on the mother language in learning foreign language (English) is significant.

Since data gathering was to take place in a school setting (during classes), the cluster random sampling technique was a very practical one to select the subjects for its ease of use, its accuracy of representation, and for the reason that each member of the population has an equal chance of being selected. Learners were divided into clusters (groups) and the groups were selected randomly.

The investigations were carried out following the rules of research and publication ethics and all subjects gave their informed consent for inclusion before they participated in the study. The protocol was approved by the committee of scientific research at the faculty of human and social sciences, Tunis.

### 4.2. Research Instruments

In order to explore the research questions previously mentioned, the following measures were employed:

#### 4.2.1. An Adapted Version of Liao's Inventory for Translation as a Learning Strategy (ITLS)

This instrument is an adapted version (Arabic version) of a survey developed by Posen Liao (2002) for his Ph.D. dissertation. It aimed at investigating Taiwanese students' translation learning strategies (Liao 2002) and EFL learners' beliefs about translation use in English language learning (Liao 2006). The number of items in the original version of this questionnaire was 28. However, in the adapted version, the number of items was 26. Two items were deleted because they did not suit the Tunisian context of foreign language learning. For instance, item 2 ("I read Chinese translation in the course reference book to help me better understand English articles in the textbook") was deleted because, in Tunisia, the translation of texts and instructions is not provided in the textbooks. Also, item 8 ("I read the Chinese translation scripts before I listen to the instructional English tapes or CDs") was excluded for the same reason. As for the changes made to this questionnaire, the word "Chinese" was replaced by "Arabic" in all the items in order to fit the purpose and the context of this study.

The ITLS used a five-point Likert Scale ranging from "strongly disagree" to "strongly agree". This psychometric response scale was meant to obtain participants' preferences or degrees of agreement with a set of statements.

#### 4.2.2. The Classroom-Related Foreign Language Speaking Anxiety Scale (CRFLSAS)

This questionnaire was originally developed by Małgorzata Marzec-Stawiarska (2015) and translated to the participants' L1 to assure the comprehension of all the items. It included 22 items on the five-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Some items in this questionnaire were originally adapted from the Foreign Language Classroom Anxiety Scale (FLCAS) constructed by Horwitz et al. (1986) and other items were prepared by the author (Marzec-Stawiarska 2015) for the context of speaking anxiety only.

In the CRFLSAS, items 1, 8, 9, 14, and 20 were based on FLCAS. For instance, statement 2 from FLCAS ("I don't worry about making mistakes in language class") was changed by the author (Marzec-Stawiarska 2015) to: "I do not worry about making mistakes while speaking" to focus exclusively on the speaking context, and statement 10 from the FLCAS ("I worry about the consequences of failing my foreign language class") was changed to "I do not worry that the way I

speak English will affect my final grade in my index book". The other items in the scale were prepared by Małgorzata Marzec-Stawiarska (2015). They were based on research findings about the causes of general foreign language anxiety and adapted into the context of foreign language speaking. This research instrument will be replicated in this study to measure the learners' level of anxiety during classroom communication.

### 4.2.3. The Receptive Translation Equivalence Vocabulary Test

A. Introducing the test:

This receptive TE vocabulary test was designed by the researcher in order to collect data about students' vocabulary knowledge and their skills of using lexical translation equivalents during receptive situations. This test is similar to the test used by James Milton and Ahmed Masrai (Milton and Masrai 2015b) with some modifications to fit the purpose of the study. Students were given 30 English lexical items altogether with their parts of speech, and asked whether they know the words or not. They have to prove their knowledge by providing L1 (Arabic) lexical equivalents.

B. Criteria for choosing the lexical items:

All the lexical items used in this receptive test were lexicalized lemmas having direct translation equivalents. They were chosen from the Kilgarriff's list which is a British National Corpus (BNC) lemmatized list (Kilgarriff 2006). They were selected from different frequency levels: 50% of the words are high frequency words and 50% are low frequency ones. This was to check the learners' vocabulary knowledge on both levels of word frequency.

The selected lexical items belong to different parts of speech and they were crosschecked with the students' textbooks to ensure they had encountered them during lessons and they existed in official programs. The following table (Table 1) provides details about the words used in this test.

**Table 1.** Details of the words used in the receptive vocabulary knowledge test.

| | Lemmas | Number in the List | Frequency | Part of Speech |
|---|---|---|---|---|
| 1. | Time | 53 | 183,427 | Noun |
| 2. | Year | 60 | 163,930 | Noun |
| 3. | Provide | 195 | 47,923 | Verb |
| 4. | Begin | 211 | 43,740 | Verb |
| 5. | Although | 215 | 43,635 | Conjunction |
| 6. | Family | 218 | 42,773 | Noun |
| 7. | Information | 242 | 38,656 | Noun |
| 8. | Water | 261 | 35,767 | Noun |
| 9. | Perhaps | 266 | 35,039 | Adverb |
| 10. | Market | 318 | 30,596 | Noun |
| 11. | Suggest | 344 | 28,665 | Verb |
| 12. | Available | 367 | 27,184 | Adjective |
| 13. | Understand | 409 | 24,252 | Verb |
| 14. | Sometimes | 505 | 20,517 | Adverb |
| 15. | Poor | 613 | 16,579 | Adjective |
| 16. | Dancing | 5169 | 1126 | Noun |
| 17. | Tolerate | 5226 | 1102 | Verb |
| 18. | Cage | 5231 | 1100 | Noun |
| 19. | Shy | 5265 | 1089 | Adjective |
| 20. | Inability | 5268 | 1087 | Noun |
| 21. | Hunt | 5271 | 1086 | Verb |
| 22. | Volunteer | 5285 | 1080 | Verb |
| 23. | Noisy | 5301 | 1075 | Adjective |
| 24. | Racism | 5311 | 1069 | Noun |
| 25. | Apologize | 5353 | 1057 | Verb |
| 26. | Actress | 5376 | 1056 | Noun |
| 27. | Waiter | 5534 | 998 | Noun |
| 28. | Donate | 5689 | 956 | Verb |
| 29. | Produce | 6293 | 805 | Verb |
| 30. | Handicapped | 6296 | 804 | Adjective |

The words used in this test are listed in the first column (lemmas). The second column provides the ordinal number of each word in the Kilgarriff's list (2006). The third column lists their frequency according to the same list, and the last column presents the part of speech.

4.2.4. The Productive Translation Equivalence Vocabulary Test

A. Introducing the test:

This second test is a productive TE vocabulary test, since students are required to produce in the target language. Students were given 30 lexical items in L1 and asked to find out their lexical equivalents in English. The use of translation and elicitation methods in testing vocabulary knowledge extends far back into the last century and has a very beneficial aspect. In fact, translation equivalence tests are easy and quick to construct, as well as to mark, since there is little room for subjectivity or judgement as words have direct translation equivalents (Milton 2009, p. 119).

B. Criteria for choosing the lexical items:

All lexical items in this test are lexicalized lemmas; that is to say, single words having direct translation equivalents in the first and the foreign languages. They are meant to test the learners' vocabulary recognition. They were chosen, based on their frequency, from the British National Corpus (BNC) lemmatized frequency list (Kilgarriff 2006). They were selected in English and translated into Arabic, then cross-checked with the learners' textbooks to ensure that they had encountered them. The following table (Table 2) provides details about the lexical items used in this test.

**Table 2.** Details of the words used in the productive vocabulary knowledge test.

| English Words | Arabic Equivalent | Number in the List | Frequency | Parts of Speech |
|---|---|---|---|---|
| 1. More | أكثر | 68 | 146,029 | Adverb |
| 2. Service | خدمة | 173 | 54,468 | Noun |
| 3. Party | حفل | 177 | 52,979 | Noun |
| 4. Before | قبل | 185 | 51,259 | Preposition |
| 5. Different | مختلف | 192 | 48,373 | Adjective |
| 6. Important | مُهِمٌّ | 239 | 39,265 | Adjective |
| 7. Money | المال | 247 | 37,892 | Noun |
| 8. Meet | يلتقى | 267 | 34,970 | Verb |
| 9. Idea | فكرة | 286 | 32,798 | Noun |
| 10. Since | منذُ | 291 | 32,404 | Conjunction |
| 11. Remember | يتذكّرُ | 374 | 26,748 | Verb |
| 12. Health | الصحّة | 405 | 24,527 | Noun |
| 13. Patient | المريض | 438 | 23,106 | Adverb |
| 14. Draw | يرسم | 472 | 21,778 | Verb |
| 15. Relationship | العلاقة | 551 | 18,866 | Noun |
| 16. Suddenly | فجأةً | 863 | 11,795 | Adverb |
| 17. Campaign | حملةٌ | 969 | 10,441 | Noun |
| 18. Refuse | يرفض | 979 | 10,312 | Verb |
| 19. Blind | أعمى | 2912 | 2674 | Adjective |
| 20. Closed | مغلق | 4296 | 1492 | Adjective |
| 21. Punish | يعاقب | 4671 | 1309 | Verb |
| 22. Slim | نحيف (هزيل) | 4738 | 1283 | Adjective |
| 23. Cooperate | يتعاون | 5867 | 904 | Verb |
| 24. Spoon | ملعقة (للأكل) | 5906 | 890 | Noun |
| 25. Hunter | صيّاد | 5965 | 877 | Noun |
| 26. Regret | الندم | 6108 | 845 | Noun |
| 27. Lazy | كسول | 6225 | 819 | Adjective |
| 28. Harmful | مُضرٌّ | 6238 | 817 | Adjective |
| 29. Greeting | تحيّة | 6290 | 806 | Noun |
| 30. Suitcase | حقيبة (للسفر) | 6307 | 801 | Noun |

Table 2 presents the chosen words, their translation equivalents, their ordinal numbers in the BNC list (i.e., Kilgarriff's list 2006), their frequency and their parts of speech.

### 4.2.5. Reliability of the Research Instruments

The Cronbach's alpha coefficient is commonly used to measure the internal consistency of scale questionnaires. As for the two vocabulary tests, The Kuder-Richardson Formula (KR20) is considered the most suitable reliability measure, as it checks the internal consistency of measurements with dichotomous choices. It is an equivalent to performing the split half methodology on all combinations of questions and is applicable when each question is either right or wrong and has a value of either zero or one. Since the KR20 is a special case of Cronbach's Alpha in which the items are binary variables, it is commonly measured in SPSS using Cronbach's alpha. Therefore, the reliability of the four instruments was calculated using the Cronbach's alpha coefficient in SPSS. Table 3 summarizes the reliability outputs of the research instruments as generated by the SPSS software. The reliability values of all measures ranged from very good to excellent:

**Table 3.** Reliability of research instruments during the study.

|  | ITLS [a] | CRFLSAS [b] | Receptive TE [c] Voc. Test | Productive TE [c] Voc. Test |
|---|---|---|---|---|
| Cronbach's Alpha | 0.942 | 0.846 | 0.929 | 0.894 |
| Cronbach's Alpha Based on Standardized Items | 0.943 | 0.834 | 0.931 | 0.900 |
| Number of Items | 26 | 22 | 60 | 30 |
| Removed items | 0 | 0 | 2 | 0 |
| Valid cases | 258 | 258 | 258 | 258 |
| Excluded cases | 0 | 0 | 0 | 0 |

[a] Inventory for Translation as a Learning Strategy. [b] Classroom-related Foreign Language Speaking Anxiety Scale. [c] Translation Equivalence.

### 4.3. Analysis Procedure

All participants took part in a similar procedure under the guidance of the researcher in order to provide the same circumstances for all of them and ensure the equality and comparability of the data gathered at various sessions. All sessions took place during class-time and students were given cards containing their codes (a number from 1 to 258) to write them on their different research instruments.

The timing was piloted to assure the completion of the research instruments. However, the students were not forced to give the papers back until they had finished. This notably minimized the risk of incomplete results or fatigue effect. In fact, the fatigue effect, as Dörnyei and Taguchi (2010) mentioned, is a key problem in collecting data by questionnaires, and "if a questionnaire is too long and monotonous, respondents may begin to respond inaccurately as a result of tiredness or boredom" (Dörnyei and Taguchi 2010, p. 9). So, the participants were given a ten-minute break between instruments to avoid the effects of boredom, fatigue, and attention loss.

All groups of participants attended two data gathering sessions:

Session 1: The inventory for translation as a learning strategy (ITLS) was administered first. Ten minutes were enough to respond to the statements of this inventory, then the students were given a ten-minute break to proceed to the next questionnaire, the classroom-related foreign language speaking anxiety scale (CRFLSAS). It took them about 20 min to respond to all the statements.

Session 2: During this second session, the two vocabulary tests were administered with a ten-minute break between them. Participants finished the receptive test in 30 min and the productive test in 20 min. It is worth noting that the two sessions took place on two different days for all the groups of participants.

*4.4. Analysis Methods*

The purpose of the first research question is to find out about the translation strategies used by Tunisian EFL learners to cope with their learning and communication problems. The adapted version of Liao's (2002) ITLS and descriptive statistics were used to answer this question.

The two other questions were answered using the two TE vocabulary tests, receptive and productive, and the classroom related foreign language speaking anxiety scale (CRFLSAS). Pearson correlations and linear regression tests were applied for this purpose. With Pearson correlations, the degree to which the variables (The receptive TE vocabulary test score & FLSA/The productive TE vocabulary test score & FLSA) are related was quantified. However, with simple linear regression tests, the relationship between these variables was modelled under the cause/effect paradigm to show the extent to which TE predicts the level of speaking anxiety among the learners during communication. The SPSS 25 software was used for these statistics tests.

## 5. Results

*5.1. Analysis of the Inventory for Translation as a Learning Strategy and the Translation Strategies Used by Learners*

The analysis of the ITLS showed a medium use (50.4%) of translation as a learning strategy by the participants in this research who relied on translation from and to their mother tongue to learn English. The most used strategies, as they reported, were memorizing the meanings of new English words through their Arabic TEs ($M = 4.23$; $SD = 0.997$), thinking in Arabic then translating into English when speaking ($M = 4.05$; $SD = 1.001$) and when writing ($M = 3.82$; $SD = 1.137$), translating from Arabic when forgetting English words and expressions during conversations ($M = 4.05$; $SD = 0.999$), and translating from English to Arabic during listening situations ($M = 3.85$; $SD = 1.050$). However, the least employed strategies were working with others to translate English assignments ($M = 2.60$; $SD = 1.275$), thinking in English directly without referring to Arabic when speaking ($M = 2.56$; $SD = 1.193$) and when reading ($M = 2.55$; $SD = 1.163$), using Arabic subtitles to understand English movies ($M = 2.51$; $SD = 1.336$), and listening to Arabic news first in order to understand English news ($M = 2.42$; $SD = 1.261$). Therefore, it can be concluded that using TE as a vocabulary learning strategy seems to be important for Tunisian 9th graders.

Item 9 ("When speaking English, I first think of what I want to say in Arabic and then translate it into English") and item 26 ("When speaking English, I think of what I want to say in English without thinking first in Arabic") are very important items in the survey regarding the speaking situation. They represent two opposite strategies. Therefore, they are represented in the same figure in order to be clearly compared. Though a 5-point Likert scale was used (Agree–strongly agree–not sure–disagree–strongly disagree), the participants' responses were categorized into three groups: agree ("agree" and "strongly agree" were assembled together), not sure, and disagree ("disagree" and "strongly disagree" were grouped together). The following figure (Figure 1) represents statistics of the learners' responses to items 9 and 26:

Figure 1 shows that most of the learners use the strategy that employ L1 translations when speaking; 74% of their responses were for the use of this strategy, 9% were against it and 17% were not sure about it. However, 19% of the participants' responses were for the strategy of using English only without resorting to Arabic translation when speaking, 50% were against it, and 31% were not sure.
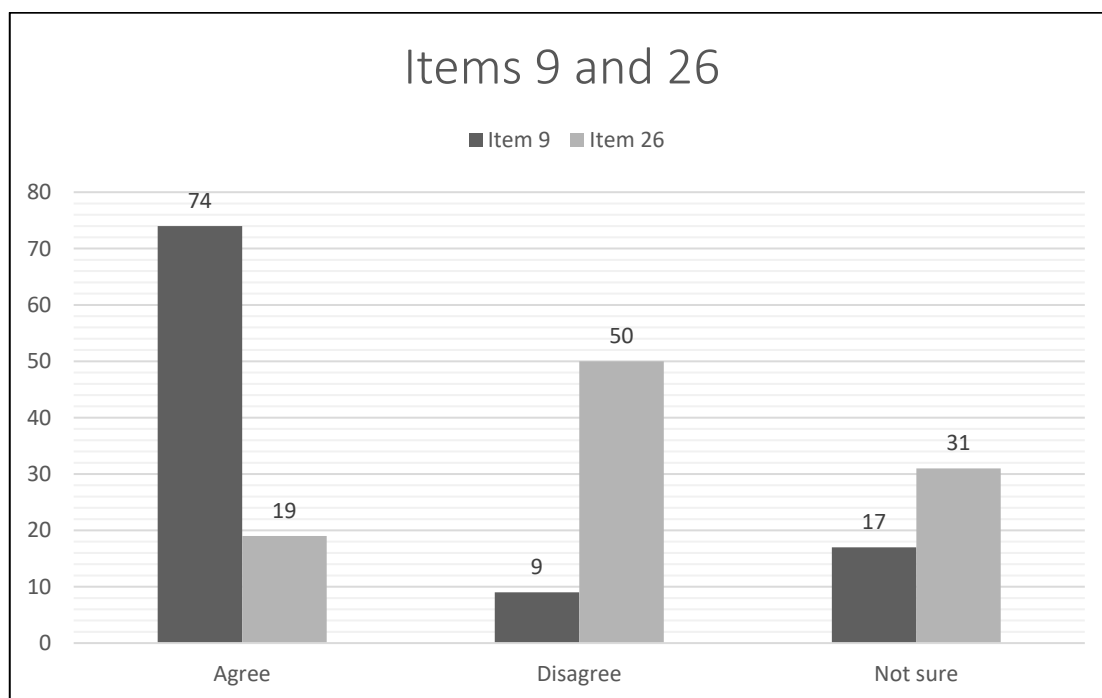
**Figure 1.** Comparison of responses to items 9 and 26.

*5.2. The Relationship between the Receptive Translation Equivalence Vocabulary Test Score and the Learners'
Foreign Language Speaking Anxiety*

The term 'correlation' is a confusing one, since many use this word to refer to any type of
association between the variables. However, it has a very technical meaning that denotes the strength
of a linear relationship between them (Schwarz 2015, p. 894). The magnitude of the number represents
the strength of the correlation. In other words, a correlation coefficient of zero represents no linear
relationship (the scatterplot will not resemble a straight line at all), while a correlation coefficient of −1
or +1 means that the relationship is perfectly linear (all of the dots will fall on a straight line).

To analyze the relationship between Tunisian 9th graders' receptive use of TEs and the level of
their FLSA, a preliminary analysis was conducted to check the assumptions for the regression test.
The following scatterplot (Figure 2) shows the linearity of the correlation between the two variables
(The receptive TE vocabulary test score & FLSA) with the regression equation in the middle and the
coefficient of determination on the right ($R^2$):

After running the test, the correlation was analyzed using the Pearson Product Moment Coefficient
(PPMC) and prediction was modelled through linear regression analysis. Table 4 shows the correlations:

**Table 4.** Correlations.

|  |  | FLSA [(a)] | Receptive TE Vocabulary Test |
|---|---|---|---|
| Pearson Correlation | FLSA | 1 | −0.736 |
|  | Receptive TE vocabulary Test | −0.736 | 1 |
| Sig(1-tailed) | FLSA | . | 0.000 |
|  | Receptive TE vocabulary test | 0.000 | . |
| N | FLSA | 258 | 258 |
|  | Receptive TE Vocabulary test | 258 | 258 |

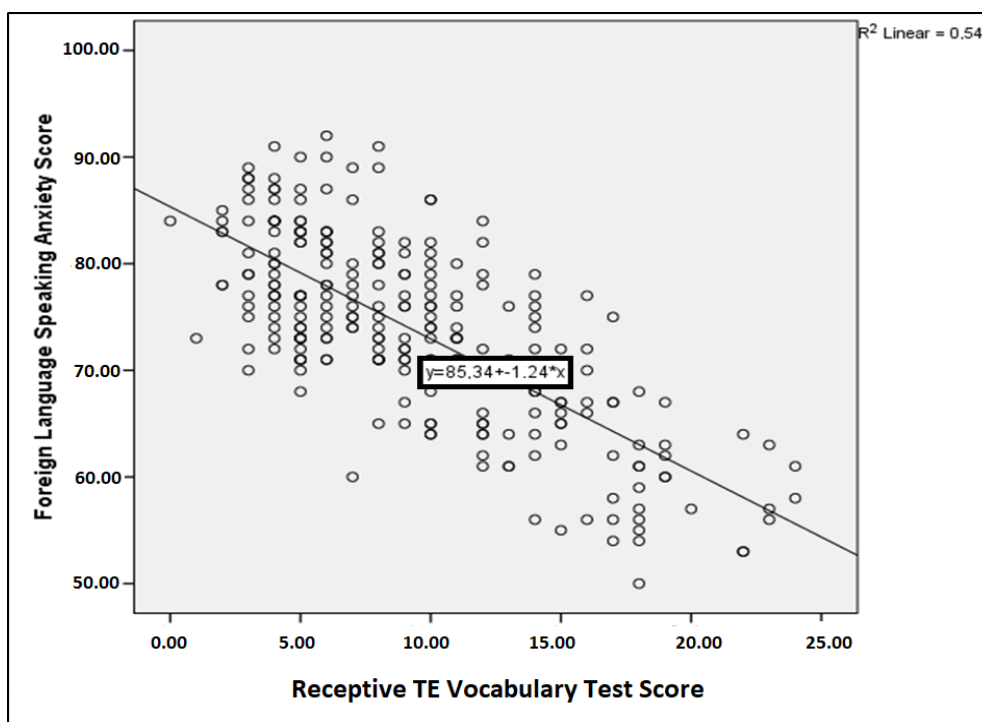[(a)] Foreign Language Speaking Anxiety.

**Figure 2.** Scatterplot of linearity and the regression equation.

The PPMC helped to reject the null hypothesis (There is no significant relationship between the Tunisian learners' achievement in the receptive TE vocabulary test and the level of Foreign Language Speaking Anxiety) by proving the existence of a strong negative relationship between the participants' scores in receptive TE vocabulary test and the level of FLSA ($r = -0.736$, $N = 258$, $p < 0.001$).

Investigating Table 4, we can notice that there were no missing cases ($N = 258$), and that the Pearson correlation coefficient took a negative sign ($r = -0.736$) which made the relationship between the two variables a negative one, indicating that the better score the participants had, in the receptive TE vocabulary test, the lower their level of FLSA would be and vice versa. Concerning the strength of the relationship between the two variables, the Pearson correlation coefficient indicated a quite strong relationship ($r = -0.736$, $N = 258$, $p < 0.001$).

This correlation test evaluated the null hypothesis that assumed that $r = 0$ in the population (i.e., there was no significant relationship between the two variables). Therefore, given that the Pearson coefficient proved that the association between the variables was a strong, linear and negative one, this hypothesis could be rejected.

Table 5 represents the summary of the regression model:

**Table 5.** Model Summary [b].

| Model | R | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | Durbin-Watson |
|-------|-----|-----|-----|-----|-----|
| 1 | 0.736 [a] | 0.541 | 0.539 | 5.93315 | 1.924 |

[a] Predictor: (Constant), Receptive TE vocabulary test score. [b] Dependent Variable: Foreign Language Speaking Anxiety Score.

Table 5 shows the Model Summary which includes the R-square, also called the coefficient of determination. This coefficient is the measure of the strength of the prediction equation. It is the square of the correlation coefficient, listed under *R* in this Model summary, and it represents the proportion of variance accounted for in the dependent variable (FLSA) by the predictor variable (Receptive TE vocabulary test score). The *adjusted R-square* corrects the value of *R-square* with small samples for the number of independent variables, in the analysis, in order to provide a better estimate of the true

population value. Yet, when the difference between the *R-square* and the *adjusted R-square* is small one could use *R-square* (Pallant 2011, pp. 160–61). In this case, the correlation coefficient is 0.736 and the $R^2$ is 0.541. The $R^2$ indicates how much variance these variables shared, and shows that the receptive TE vocabulary test score has explained 54.1% ($R^2 \times 100$) of the variance of the dependent variable (FLSA). According to Cohen (1977), this is considered as a very large effect of the independent variable on the dependent one and the null hypothesis was, then, rejected.

Also, the Output of the regression test showed the following regression equation (see Figure 2): $y$ = 85.34 − 1.24·$x$ ($x$ = the score of the receptive TE vocabulary test/$y$ = FLSA). A regression equation represents the slope of the 'best-fit' regression line shown in Figure 2. It shows the association between the two variables ($y$ = 85.34 + (−1.24·$x$)) which means that an increase in one unit of $x$ results in a decrease of 1.24 in $y$. For instance, if a learner gets 6 in the receptive TE vocabulary test, the score of his/her FLSA will be 77.9 ($y$ = 85.34 + (−1.24 × 6)). Thus, the higher the participant's score in the receptive TE vocabulary test is, the lower his/her level of FLSA will be.

### 5.3. The Relationship between the Productive Translation Equivalence Vocabulary Test Score and the Learners' Foreign Language Speaking Anxiety

A simple linear regression test was performed to explore the relationship between the learners' productive use of TE and their level of anxiety during in-classroom speaking tasks and to predict the level of speaking anxiety based on their scores in the productive TE vocabulary test. The following scatterplot (Figure 3) shows the linearity of the relationship between the two variables (The productive TE vocabulary test score & FLSA), the regression equation and the coefficient of determination $R^2$:
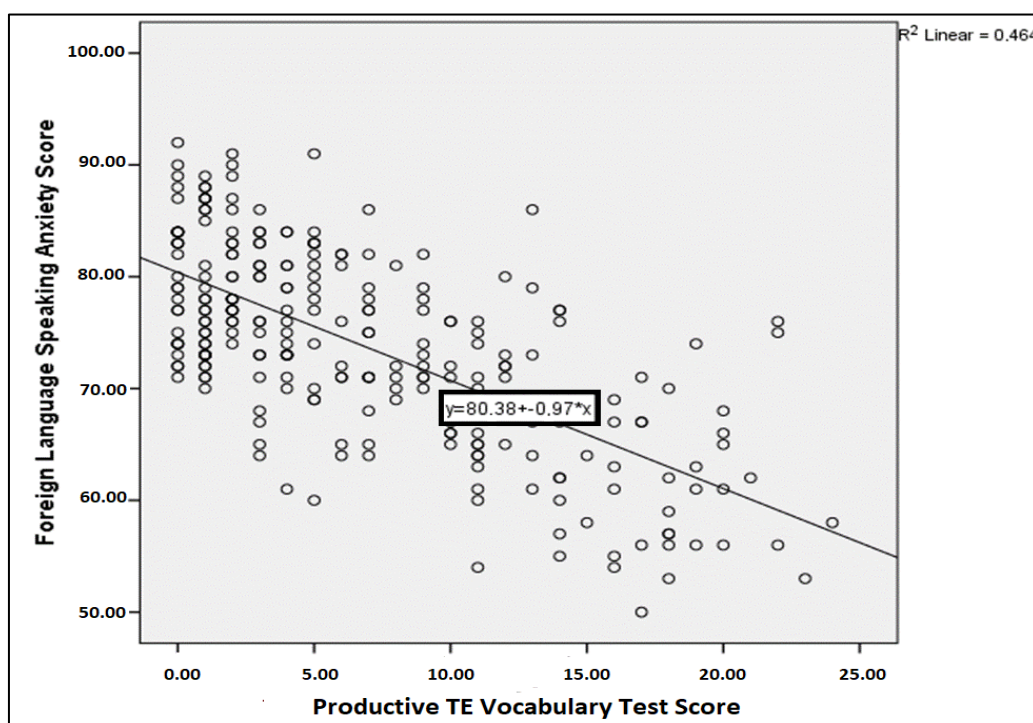


**Figure 3.** Scatterplot of linearity of the productive TE vocabulary test and FLSA.

The PPMC showed a quite strong negative relationship between the two variables ($R$ = −0.681, $N$ = 257, $p$ < 0.001). Table 6 shows details of the correlation:

**Table 6.** Correlations.

|  |  | **FLSA** | **Productive TE Vocabulary Test** |
|---|---|---|---|
| Pearson Correlation | FLSA | 1 | −0.681 |
|  | Productive TE Vocabulary Test Score | −0.681 | 1 |
| Sig(1-tailed) | FLSA | . | 0.000 |
|  | Productive TE Vocabulary Test Score | 0.000 | . |
| N | FLSA | 257 | 257 |
|  | Productive TE Vocabulary Test Score | 257 | 257 |

Table 6 shows that the number of participants was 257 instead of 258 since there was an outlier case which was omitted (Case 201 represented an extreme value that did not fit with other values of the study). Moreover, it shows a statistically significant relationship between the productive TE vocabulary test score and FLSA score with $p < 0.001$. The negative sign of the Pearson correlation coefficient (PPMC) indicated a negative relationship between the two variables ($R = -0.681$); that is to say that the two variables go in different directions, when one increases the other decreases and vice versa. According to Cohen (1977, pp. 79–80), the magnitude of this correlation is strong since the Pearson correlation is over 0.50 ($R = -0.681$). These findings helped to reject the null hypothesis saying that the learners' use of TE in a productive way could not predict their level of FLSA.

Table 7 represents a summary of the regression model. It includes the PPMC ($R$) and the coefficient of determination ($R^2$):

**Table 7.** Model Summary [b].

| **Model** | **$R$** | **$R^2$** | **Adjusted $R^2$** | **Std. Error of the Estimate** | **Durbin-Watson** |
|---|---|---|---|---|---|
| 1 | 0.681 [a] | 0.464 | 0.462 | 6.40525 | 1.933 |

[a] Predictor: (Constant), Productive TE vocabulary test score. [b] Dependent Variable: Foreign Language Speaking Anxiety Score.

The coefficient of determination $R^2$ had a value of 0.464 which means that 46% of the variation in the level of FLSA is explained by the score of the productive TE vocabulary test. A significant regression equation (see Figure 3) was found with $F (1, 255) = 221.070$ and $p < 0.001$. The participants' predicted level of FLSA is equal to $80.38 + (-0.97 \cdot x)$ with $x$ representing the score of the productive TE vocabulary test. Thus, it can be concluded that the linear relationship is statistically significant with a t-statistic of 133.455 and $p < 0.001$ and the null hypothesis assuming that the productive use of TE could not predict the learners' level of FLSA is rejected.

*5.4. Summary of the Results*

The analysis of the ITLS showed a medium use of translation as a learning strategy by the Tunisian students who participated in this research. They showed a great tendency to think in Arabic then translate in English when speaking. Actually, they reported that they use translation to memorize new English words, to express their thoughts during speaking, and to keep conversations going on when they forget some words. Also, Tunisian EFL learners reported their frequent use of translation during listening when they try to understand the English utterances through their Arabic translations, and during writing when they think in Arabic then translate their thoughts into English. The use of bilingual dictionaries (Arabic-English and English-Arabic) and the cognitive practice of translation were reported by the informants as valuable compensation strategies in the vocabulary learning process.

Then, simple linear regression tests were performed, at both receptive and productive levels, to investigate the relationship between the strategy of translation equivalence and the learners' foreign

language speaking anxiety. The Pearson correlation coefficients showed strong negative relationships between the scores of the receptive TE vocabulary test/the productive TE vocabulary test and the level of the participants' FLSA, which means that the successful use of this strategy lessens learners' level of speaking anxiety and the unsuccessful use contributes to the increase of the level of the speaking apprehension. In addition to that, the prediction models showed that 54% of the variance in FLSA could be explained by the receptive TE vocabulary test score (at the receptive level) and 46% of the variance could be explained by the productive TE vocabulary test score (at the productive level).

## 6. Discussion

Tunisian students who participated in this research showed their reliance on Arabic to learn English vocabulary; they think in Arabic then translate in English and they look for Arabic equivalents to understand new words. By comparing and contrasting items 9 and 26 of the adapted version of the inventory (ITLS), it was found that 74% of the informants' responses were for the use of the strategy of thinking in the mother tongue then translating in English, whereas only 19% of the responses were for thinking in English without referring to the mother tongue when speaking. These percentages indicated that the learners' resorting to the mother tongue when speaking seemed to be inevitable and could not be avoided, at least at the participants' level of proficiency. Though this finding partially concurred with Mutlu et al.'s (2015) research results that proved the Turkish learners' use of translating to brainstorm and organize ideas during speaking tasks, it significantly differs from Liao's result (2006) in which the rate of thinking in the target language without translating from/to the L1 was higher than thinking in L1 then translating into the target language.

Regarding the impact of TE, at the receptive level, on the learners' level of FLSA, results indicated that there was a strong linear negative relationship between the two variables under study (Variable 1: The learners' scores at the receptive TE vocabulary test/Variable 2: Learners' FLSA). In this causal relationship, 54% of the variance in FLSA could be explained by the informants' scores in the receptive TE vocabulary test. This type of negative relationship means that when a variable increases the other one decreases and vice versa. The analysis of the collected data revealed that high achievers in the receptive TE vocabulary test showed low levels of speaking anxiety during classroom activities, whereas low achievers showed high levels of speaking anxiety. In other words, high levels of speaking anxiety were associated with low scores at the receptive TE vocabulary test and low levels of speaking anxiety were related to high scores at this test.

Similarly, at the productive level, the correlation between the productive TE vocabulary test and the learners' level of FLSA was proven to be strong. In fact, a linear negative relationship was found between the two variables (Variable 1: the learners' scores at the productive TE vocabulary test/Variable 2: Learners' FLSA), and 46% of the variance in the level of the participants' speaking anxiety could be attributed to the use of TE strategy. Accordingly, at both levels, receptive and productive, the failure of the strategy of translating results in increasing the learners' degree of speaking anxiety, and its success leads to lowering it.

Indeed, Auerbach (1993) valued the role of the mother tongue in reducing L2 anxiety which appeared to be in good agreement with the findings of the current research. Also, Karimian and Talebinejad (2013) found that translation has a positive impact on EFL classes and FL pedagogy since it provides learners with the security of L1 and helps to lower their degree of FL anxiety. Liao (2006) confirmed that one of the positive aspects of using translation in learning foreign languages is that it reduces learners' anxiety and enhances their motivation to learn foreign languages. In line with this view, Wenden (1986) proved that learners who felt nervous and anxious during speaking resorted to their L1 to lower these emotions.

Though most of the studies placed importance upon the role of L1 in learning L2 and in creating a favorable atmosphere for its development, some researchers considered it as an obstacle and not a helper in the process of learning foreign languages. For example, Levine (2003) found through his research that learners felt relaxed with using only the TL, and consequently less exposure to the TL

and the use of L1 might result in an atmosphere of fear and anxiety. Hammad and Abu Ghali (2015) confirmed this view by recommending the reduction of L1 use in L2 learning and the maximization of TL use.

## 7. Pedagogical Implications

The results of this study point to considerable implications for educators. Since anxiety and speaking are two important issues in pedagogy, teachers should create a favorable, supportive, encouraging, and anxiety-free environment for learning so that learners can feel more comfortable and gain more confidence and self-esteem in the language classroom. Indeed, most students often evaluate their success in language learning on the basis of their speaking proficiency (Richards 2008). Therefore, teachers' efforts should be mainly focused on developing learners' ability to speak since speaking represents an important challenge for language learners (Pinter 2006).

First, teachers are invited to think of translation equivalence as a helpful pedagogical tool into the language learning process which allows communication between languages, since while translating, learners are incited to shape their way of thinking and correct the mistakes caused by the ambiguity of meaning that could otherwise remain unnoticed. According to Leonardi (2011, p. 22), translation is a pedagogical tool that can be used at any level of proficiency to support and strengthen the four language skills.

Second, teachers could raise students' awareness in using translation, as a vocabulary learning strategy, by directing their attention to linguistic and cultural differences between L1 and L2, particularly, applying L1 knowledge to L2 in order to deal with them and negotiate the potential of both languages. Interference, for instance, 'the influence that the learner's L1 exerts over the acquisition of an L2' (Ellis 1997, p. 51), is a major linguistic phenomenon that learners should be aware of when employing the strategy of translation equivalence.

Also, they could warn students against the problem of lexicalization. When using translation to clarify meaning or asking peers or teachers to translate, a tacit assumption is that any word can be easily translated into a word in another language. In fact, not all English words may be lexicalized in L1, nor all Arabic words can be lexicalized in L2. Also, some words have no translation equivalents at all; for instance, the expression 'good afternoon' has no equivalent in the Arabic language. Students may face the problem of translating idiomatic expressions, phrasal verbs and collocations which necessitate the intervention of the teacher. Hence, learners should be aware of the fact that there is no absolute equivalence, and should take into consideration the linguistic and cultural gaps between the languages.

Finally, instructors could encourage the learners to use different translation equivalence strategies such as using bilingual notebooks and bilingual word lists. Also, they could help students choose and use the right bilingual dictionaries, especially the electronic ones, and assist them in acquiring the dictionary-using skills and in understanding the inherent differences and limitations of bilingual dictionaries. In addition, they could develop learners' circumlocution strategies; that is when students find problems in saying something in the foreign language, teachers could encourage them to think of different ways to say the same thing in the L1, which may be easily translated (Atkinson 1987, p. 241).

## 8. Limitations of the Study

There were two major limitations to the present study that may raise issues regarding drawing definitive conclusions from its findings. Although this research focuses on the relationship between the use of the mother tongue (Arabic) in learning a foreign language (English) and the learners' anxiety during in-class speaking activities, the importance of French within the general linguistic situation in Tunisia should not be unheeded. In fact, Tunisia is a former French colony (1881–1956) and French has a firm foothold in the country's administrative and educational systems to the extent that it is difficult for academics to clearly distinguish its status as a second or a foreign language (Daoud 1991; Salhi 2000; Daoud 2001). Therefore, some learners may resort to French to cope with their difficulties

in learning English vocabulary. That is to say, the existence of French within the Tunisian learner's mental lexicon and its possible impact on the results and their interpretation ought to be seriously considered in future research by developing research instruments that are more appropriate to this multilingual context.

Due to time constraints, a small sample size of students (258 students) at preparatory schools participated in the study. If a larger number of students from different levels at preparatory and secondary schools (e.g., 7th and 8th grades) had been involved, a much more detailed analysis could have been made and a broader perspective on the correlation between translation equivalence, as a vocabulary learning strategy, and in-classroom speaking anxiety could have been obtained.

## 9. Conclusions

This study of the correlations between using TEs to learn foreign language vocabulary and the learners' level of speaking anxiety is part of a hot debate about using translation in the learning process. These correlations were tested quantitatively in an experimental setting which resulted in concluding that using translation as a pedagogical tool to learn foreign language vocabulary is an effective and efficient method especially for beginners since it helps them ameliorate their vocabulary knowledge and facilitate the process of learning in a way that contributes positively to reducing the level of speaking anxiety they may experience in class.

Therefore, the debate about the merits of translation as a method of language learning has been enriched by critical reflections on the importance of pedagogical translation as an aid to foreign language acquisition, as a means of developing linguistic and metalinguistic competence, and as a motivational factor. In other words, the value of using TEs in learning vocabulary lies in its ability to satisfy the exigencies of many language learners who shy away from in-class communicative activities as the case of role plays or free communication with teachers and peers. This resort to the previous knowledge of L1 provides the learners with the sense of security of their mother tongue and meets their needs for self-confidence and self-esteem. This may create for them a luxurious environment in which they could not lose face in front of their teachers and peers. In fact, students used TE to memorize and retrieve English words, to make up for their deficiencies in the target language, to self-assess and comprehend the tasks, and to facilitate their interaction with others in the EFL classroom.

So, though TE strategy using L1 should not be banned from the EFL classroom, a well-balanced approach, i.e., between using the mother tongue and using only the English language, should be strongly encouraged. The English language should remain the chief medium of communication. Learning it and developing the learners' competence should be the first goal of the EFL classroom. Thus, L1 use, in the EFL classroom, should not constrain the amount of L2 input learners are exposed to and TE strategy should be a principled, guided, and purposeful means used as a supporting tool to supply scaffolding to lower affective filters, reduce the learners' feelings of tension and anxiety, and make the process of learning the foreign language and the EFL classroom environment more comfortable.

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