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The Use of Language Tools in a Foreign Language Classroom

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THE USE OF LANGUAGE TOOLS IN A FOREIGN LANGUAGE CLASSROOM

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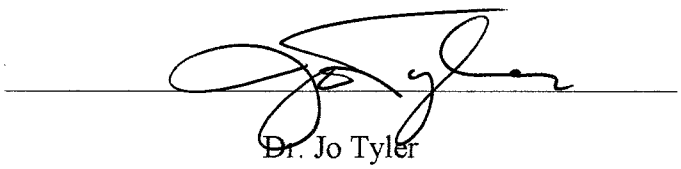

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Introduction

Students in a foreign language (FL) Spanish class were given an assignment to write about the activities they completed over the summer in a 100 word paragraph. One student wrote about 20 words and then came to a paralyzing dead end. The student had no knowledge for the activity of *scuba diving* in Spanish. The student only had a few options. The student could just pretend that the scuba diving activity never occurred over the summer and continue writing about other activities. Or the student could access a language tool of some kind to determine the verb form of *to scuba dive* in Spanish, if the teacher permitted tool use on the assignment.

The situation described above is not uncommon in a FL class. Once the student attempts to search for the word in the target language (TL), more decisions are required. Should students use a portable electronic translator or dictionary, a small pocket bilingual dictionary, or an online dictionary their teacher mentioned in class? Or perhaps they will simply modify the English word with a generic inflection of the TL, which will require much less time.

In FL study, learners have limited exposure to the TL. This occurs because they are not immersed in the language outside of the classroom. Especially when working individually, learners typically have very limited lexical knowledge of the TL, which then forces them to use various resources to make up for their vocabulary deficiencies in the TL. In fact, many resources exist that may be able to help them, such as paper dictionaries that are bilingual, monolingual, or a hybrid of both; electronic bilingual dictionaries such as those that are online, CD-ROMs, hand-held, or scanner pens; and translators that are computer-based and hand-held (East, 2008, p. 15; Loucky, 2002, p. 310; Williams, 2006, p. 566). The use of language tools in learning is an important topic in a FL classroom.

There are scholarly justifications as well as personal experiences that make this topic an applicable and valuable area of research. The reason I have chosen the use of language tools as my research topic is because they are often used incorrectly by the students in my own classroom, even in my seventh year of teaching Spanish in a local high school. Throughout my teaching, I have given numerous assignments requiring students to produce the TL. Prior to most assignments I often address the issue of using web-based machine translation (WBMT) as a form of academic dishonesty. WBMT differs from paper and electronic dictionaries because this type of tool can translate entire sentences and documents into the TL, essentially doing the work the students should be doing on their own (Williams, 2006, p. 566). Some of the products, or output, I have received from students do not contain work of their own knowledge. This is especially apparent when noting the verb tenses they submit in their final output which they have never learned in a lower level. I have also seen misspelled English words in TL assignments indicating that the words were unable to be recognized by WBMT. In such cases students most likely used WBMT and then copied the translation results into their assignment. Another problem I have witnessed is students' use of bilingual dictionaries. Some problems students have with the bilingual dictionary are the inability to locate English or Spanish words, selection of the appropriate TL word, and the inability to understand metalanguage abbreviations to use a word correctly in a sentence. Another reason this topic is relevant is because many FL teachers, myself included, are not confident in how to integrate or use language tools within their teaching or if the instruction of language tool skills should be integrated at all (Hartmann, 1999, p. 80). Teachers struggle with the use of language tools because of the numerous mistakes students make when using them.

It is possible that one reason I have witnessed a broad misuse of language tools is because of advancing technology and numerous forms of tools. Therefore, research of effective language tools for language learners is very limited. Williams admits that very little research exists about WBMT and second language learning (2006, p. 565). However, he does claim that there is anecdotal evidence that students use WBMT for homework and writing assignments (Williams, 2006, p. 566). Read also indicates there is very little research available regarding the effectiveness of dictionaries and teaching vocabulary (2004, p. 152). In Europe, the research on dictionary use within language development and pedagogy is also inadequate (Hartmann, 1999, p. 33). Some European teachers claim that the dictionary should be integrated as a language tool simultaneously with language instruction, whereas other teachers would prefer teaching dictionary skills separately within the curriculum (Hartmann, 1999, p. 80).

There are many reasons why language tools present such a problem for students learning a second language. According to Myers, language learners have difficulty using bilingual dictionaries for three reasons: they do not distinguish the collocation of words properly; dictionaries have limited information about the connotations of words; and the learner has limited knowledge of TL words and grammar irregularities (1994, pp. 195-196). According to a study by Chrstianson, only 58 percent of words found in a dictionary for a student writing activity were looked up correctly (Christianson, 1997, cited in Bruton, 2007, p. 417). To reduce the amount of student errors when using bilingual dictionaries and to limit the student to their TL knowledge, Myers recommends the use of monolingual dictionaries instead of bilingual dictionaries (1994, p. 197). However, East claims there are many disadvantages of the monolingual dictionary when used by a low-level FL student (2008, p. 17). Hulstijn, Hollander, and Greidanus (1996) found that the use of marginal glosses and bilingual dictionaries allowed

for acquisition of incidental vocabulary. Students associated the correct meaning to words especially when they were repeated in a text (Hulstijn, Hollander, & Greidanus, 1996, p. 336). Another troublesome language tool is WBMT. Out of three free and highly-used WBMTs, Williams (2006) evaluated their performance in different grammatical areas translating from English into French. Williams encountered translation problems with prepositions, nouns, verbs, and verb phrases (2006, pp. 568-571). He found the most inaccuracy when translating particle verbs, such as *to wake up*, when the particle *up* can be located in adjacent or remote positions (e.g. *I woke up the children* vs. *I woke the children up*) (Williams, 2006, p. 571). These are just a few of the reasons why language tools are misused and can be ineffective for FL students and therefore a controversial topic within FL teaching.

Electronic tools such as hand-held devices, CD-ROM dictionaries, or translators and dictionaries via the Internet are gaining popularity, as they bring with them many advantages; however, disadvantages always exist. Nesi indicates that electronic dictionaries are now very popular and predicts that the electronic dictionary will soon replace the book form of dictionaries (1999, p. 65). If paper dictionaries are soon to be replaced, it is likely that students without electronic devices or computer access will suffer, thus broadening the digital divide. However, Warschauer (2002) claims that increasing technology hardware will not solve the digital divide; instead more action should be taken to solve the literacy divide (2002, Rethinking the Digital Divide, para. 1.) Electronic literacy skills then become very important when using these newer tools for second language learning. Shetzer and Warschauer address the importance of how students need to use the most crucial electronic resources to become autonomous learners by effectively using information technology (2000, p. 172). They advise that the development of literacy and communication using on-line media is essential in our global society (Shetzer &

Warschauer, 2000, p. 171). Hall agrees that students and teachers should learn how to evaluate technological tools that may be helpful in the language learning process (Hall, 1999, cited in Williams, 2006, p. 566).

This paper contains evaluations of various language tools and how students use them for language learning. More specifically, the paper examines the literature regarding advantages and disadvantages of various language tools, their effects in language learning, and ways educators should use them in language pedagogy. Following the literature review, I present the qualitative research conducted in my level 3 Spanish classroom to determine how and why students utilize language tools.

Literature Review

In order to provide sufficient background about how students use language tools in the FL classroom, this literature review will focus on the following questions:

(1) What are the advantages and disadvantages of different language tools for language learners?

(2) What does current research tell us about how students use language tools?

(3) How should a FL teacher integrate the use of language tools into the curriculum?

Advantages and Disadvantages of Language Tools

There are many language tools, each with their own advantages and disadvantages. Also, the use of such language tools affects FL learning in many ways. This section will focus on the use of language tools and their effect on learning, the types of tools available and their respective advantages and disadvantages, and the tools' advantages and disadvantages regarding convenience.

The Effects on Learning with and without Language Tools

Overall, language tools have been noted to promote greater confidence, motivation, and an authentic means of communication (East, 2008, pp. 3, 6, 20). Also, learners become more autonomous and independent by developing effective communication strategies (East, 2008, p. 19). The use of language tools also allows for strategic competence to make up for gaps in knowledge (Canale & Swain, 1980, cited in East, 2008, p. 19). For example, a bilingual dictionary allows learners to become more independent and less reliant on their classroom teacher (Herbst & Stein, 1987, cited in Barbe, 2001, p. 75). Teachers can show students how to accommodate for their inadequate TL vocabulary by teaching students strategies using bilingual dictionaries (Oxford, 1990, cited in East, 2008, p. 19). By learning strategies, students can solve problems, accomplish tasks, and meet goals and objectives on their own (Oxford, 1990, cited in East, 2008, p. 19). Although learners may become more autonomous by using a tool such as a bilingual dictionary, they may then rely too much on that tool (East, 2008, p. viii). Students in England that took the General Certification of Education Exams in 1998 were allowed to use a bilingual dictionary on the language portion of the test. However, five years later, the use of the bilingual dictionary was prohibited (East, 2008, p. viii). East recalls testing students when dictionaries were permitted and how much time during exams students lost because of their heavy reliance on the tool (2008, p. viii).

The use of language tools relates primarily to acquisition of vocabulary in the TL. There is one crucial element that is necessary for students to acquire words incidentally. Students need input. Input, known as reading and listening, affects students' acquisition of incidental vocabulary. Hulstijn et al., describe incidental vocabulary learning as acquiring vocabulary accidentally and learning words without the intention of remembering them later (1996, p. 327). Knight's definition expands on the purpose of reading with regards to incidental vocabulary

acquisition. According to Knight, incidental vocabulary acquisition occurs when the reader is focusing on the content of the text, rather than actually reading the text for language purposes (1994, p. 285). Krashen (1982) believed that languages are acquired by receiving comprehensible input, also known as the Input Hypothesis. He theorized that comprehensible input is language that is either seen or heard and is slightly above the learner's ability of language knowledge (Krashen, 1982, cited in Gass & Selinker, 2008, p. 309). Without this type of input, students would not be able to learn new words. Therefore, input that is slightly higher than students' vocabulary knowledge may require students to use a language tool or work without a language tool, then guessing the difficult words based on context.

Reading in the target language can be a great challenge to the FL student. Some researchers promote reading without the use of language tools. One method without the use of a language tool is the Contextual Guessing Hypothesis (Knight, 1994, p. 285). Many researchers of native and TL vocabulary studies have confirmed that students can guess words correctly while reading, especially students of higher verbal abilities (Knight, 1994, p. 285). This hypothesis is also a default explanation for how words are acquired without formal vocabulary instruction (Nagy & Anderson, 1985, cited in Knight, 1994, p. 285). Some research supports this hypothesis; however, other studies indicate that contextual guessing is ineffective since readers often do not obtain the accurate meaning of an unknown word from a text (Knight, 1994, p. 286). Contextual guessing is a method in which the learners only rely on their own knowledge of their native language and ability to correlate the two languages with no outside resources. In order for contextual guessing to be effective, learners must have a broad knowledge of native language and TL words.

If contextual guessing fails during reading, it is likely that FL students would seek the help of a language tool. Language tools can also increase incidental vocabulary acquisition by requiring students to process the word deeply and elaborately. This situation then increases the chances for retention of incidental vocabulary (Laufer & Hulstijn, 2001, cited in Peters, 2007, p. 36). Laufer and Hulstijn describe one hypothesis that could measure the depth of processing of words acquired incidentally using dictionaries; it is known as the Involvement Load Hypothesis (Laufer & Hulstijn, 2001, cited in Peters, 2007, p. 37). This hypothesis contains one motivational component and two cognitive components. The motivational component is the amount which a student needs a word. Need varies depending on the learner's motivation which can be moderate, strong, or driven externally. The two components that require cognitive effort are searching and evaluating. Searching is attempting to find a word or concept in a dictionary. Evaluating requires the selection of a word when numerous words are given, especially involving comparison of a word and all of its meanings and uses (Laufer & Hulstijn, 2001, cited in Peters, 2007, p. 37). When students have a need for a word, search for it, and then evaluate it, they end up processing new words. However, not all available language tools work the same way, requiring the same search and evaluation components. Acquisition of incidental vocabulary is low when consulting a dictionary (Hulstijn et al., 1996, p. 332), and may be even lower with electronic dictionaries since they do not force students to process information in the same way as printed dictionaries (Peters, 2007, p. 38). According to the Involvement Load Hypothesis, electronic dictionary users would not be required to search or evaluate in the same way as print dictionary users because students may not need to know the correct spelling, or they may only have to click on links thereby reducing the search. As a result, some Japanese teachers believed

that if students could get information so easily with electronic tools, they would not retain as much (Sharpe, 1995, cited in Nesi, 1999, p. 64).

The use of language tools can also affect reading comprehension. According to Knight, language tools do not seem to promote contextual guessing (1994, p. 285). Contextual guessing does not require the use of a language tool. Even though language tools can be helpful in incidental vocabulary acquisition the use of a language tool could reduce reading ability. As discussed earlier, if students use a language tool too much, they may become over-reliant on the tool (East, 2008, p. 4). In terms of reading comprehension, if students have to utilize a language tool, it is likely that they will interrupt their reading flow to invest time and mental effort to look up words thereby affecting their comprehension of a text (Hulstijn, Hollander, & Greidanus, 1996, p. 335). Consequently, this means that reading comprehension may be compromised since looking up words interferes with reading and short term memory; however, evidence is lacking to support this claim (Carter, 1988, Marzano & Marzano 1988, cited in Knight, 1994, p. 285).

When language tools are used for writing, many more problems arise. The proper use of TL lexical items is not always clear to the learner. For example, if smaller dictionaries fail to include unfavorable connotations of a word, the learner is unaware and will use words incorrectly (Myers, 1994, p. 197). Additionally, students writing or speaking need to be aware of how the word behaves and any grammatical irregularities associated with it. FL students are often unable to guess collocations of words and grammatical irregularities. FL students also need specific information about possible fixed expressions, frequency and currency of patterns, the level of formality of words, and idiom prone items (Myers, 1994, p. 197).

Types of Language Tools, Their Advantages and Disadvantages

East states that there are two categories of reference tools, print dictionaries and those that are electronic (2008, p. 15). The electronic category is rather young in comparison to paper dictionaries. There are many variations of electronic dictionaries. In a study by Loucky, Japanese students were tested using three different electronic dictionaries and a paper dictionary; the three electronic dictionaries were the optical character recognition/translation Quickionary reading pens, portable electronic dictionaries (PEDs), and computer translation and dictionary software (2002, pp. 297, 301). A Quickionary pen is used by scanning the device over a word that is unknown. The student does not need to type in the word since it is recognized by the device and then defined on the screen of the pen (Loucky, 2002, p. 310). PEDs are also known as hand-held dictionaries which tend to vary greatly since each newer version is an improvement to the previous (Nesi, 1999, p. 56). Computer translation and dictionary software are typically stored in the form of a compact disk (CD-ROM) or stored online (Nesi, 1999, pp. 60, 64). One electronic tool that is slightly different than an electronic dictionary is an electronic translator, also known as machine translation. Williams categorizes one type of machine translation as web-based (WBMT) such as those commonly known via the Internet as AltaVista-Babel Fish and Free Translation (2006, p. 567).

Within both the print and electronic categories are the subcategories of monolingual, bilingual, and bilingualized dictionaries (East, 2008, p. 15). The monolingual dictionary can be divided even further into a learner's dictionary and a regular dictionary (East, 2008, p. 15). A learner's monolingual dictionary tends to be more user-friendly (Winkler, 2001, p. 233). A user-friendly dictionary takes the user into account and provides helpful tools along the way to assist the learner which do not typically exist in normal monolingual dictionaries. For example, the *Cambridge Learner's Dictionary* (2004) provides exercise worksheets to help learners

understand collocation, words that usually go together. Relatively new, the bilingualized dictionary contains a combination of monolingual definitions and examples in the TL along with a translation into the user's native language (NL) (East, 2008, p. 184). A bilingualized dictionary is considered a hybrid, which is a combination of a monolingual, bilingual, and a pedagogical dictionary (Hartmann, 1994, p. 206 cited in East, 2008, p. 20). The remainder of this section will discuss the advantages and disadvantages of bilingual, monolingual, bilingualized, and electronic dictionaries. Because there are so many different kinds of electronic tools, a detailed list of advantages and disadvantages of those tools can be found in Appendix A.

There are several advantages of using bilingual dictionaries. They tend to be very helpful and popular. One reason that they are popular is because the tool allows the users to make up for their inadequate vocabularies in the TL (East, 2008, p. 19). In addition to building confidence, students can use them to clarify meanings (East, 2008, p. 20). Also, smaller bilingual dictionaries tend to be better for reading (East, 2008, p. 16). Larger dictionaries are less helpful to a reader because if more information is presented, more time is needed to process all the information provided and decode the dictionary terms (Nesi, 1999, p. 55). Also, as previously discussed, reading flow should be maintained to assist in comprehension.

Likewise, there are disadvantages of bilingual dictionaries. Dictionaries have differing amounts and combinations of information. According to a study by Chrstianson, only 58 percent of words found in a dictionary for a student writing activity were looked up correctly (Christianson, 1997, cited in Bruton, 2007, p. 417). Language learners have difficulty using bilingual dictionaries for three reasons: not all dictionaries distinguish the collocation of words properly; dictionaries have limited information about the connotations of words; and the learner

has limited knowledge of TL words and grammar irregularities (Myers, 1994, pp. 195-196). Collocations refer to words that are typically used in conjunction with one another. An example of a word combination that is found together is *ask* and *question*. In English, these two words are commonly used together in comparison to some languages that use the equivalents of the words *say* and *question* in combination. One difficulty is that students most often use their NL syntactic knowledge to interpret usage of a TL word, which then causes problems, especially with collocations (Myers, 1994, p. 195). Connotations are suggestions or implications separate from a word's actual meaning; knowing about connotations can be very important in choosing the correct word from a list of options. An example of a connotation is the word *handicapped*. If a person chooses the word *handicapped* to describe someone, a negative opinion or feeling may be associated with that word.

Another disadvantage of some dictionaries is seen within the search process. Some dictionaries assume that users have great knowledge of word formation (Schofield, 1982, p. 187). For example, if a user were to search for *happiness*, the word for *happy* may be the only defined word in the dictionary, with *–ness* following the definition of *happy*. Another disadvantage of bilingual dictionaries is that not all dictionaries list idioms consistently in the same location. A great example of determining an idiom is *pull someone's leg*. The idiom may be listed either under *pull* or *leg* if listed at all (Schofield, 1982, p. 187).

One more disadvantage of bilingual dictionaries is that they typically produce a one-to-one word association of the NL word to the TL word. This frequently occurs from using smaller pocket bilingual dictionaries since fewer entries are supplied to the user (East, 2008, p. 16). Because of the one-to-one matching of individual lexical items, the learner does not discover the various uses of words or uses in certain contexts (East, 2008, p. 17). For example, a student

could come across the sentence *Los coches embotellaron rápidamente* 'the cars quickly got into a traffic jam.' The student may need to understand *embotellaron*; the entry in the 1985 *Langensheidt Bilingual Pocket Dictionary* defines the word as "[1a] bottle; *fig.* bottle up." It is unlikely that an average student would infer that the cars were in a traffic jam according to the definition of *bottle up*. Smaller dictionaries with fewer definitions rely heavily on one-to-one word associations; on the other hand, if multiple options are given for words, they may not be written in order of frequency (East, 2008, p. 16). Barbe claims that students are trained to think in one-to-one word associations because of their previous experiences using glossaries, which only give one definition of a word or term (2001, p. 67). The previous knowledge using glossaries is then transferred to the concept of finding words when they use a bilingual dictionary (2001, p. 67). The larger the dictionary, the more difficult it is to process the information and more skills are necessary for decoding of the information (Nesi, 1999, p. 55; Tomaszczyk, 1983, cited in East, 2008, p. 17). Because of the numerous word options given to the dictionary user in larger dictionaries, thereby eliminating one-to-one word associations, word class and selectional errors occur often (Bruton, 2007, p. 422).

The final disadvantage of bilingual dictionaries surrounds different approaches to teaching. The use of the NL in bilingual dictionaries can also be considered a disadvantage since some goals of the Communicative Language Teaching (CLT) approach try to promote more thinking within the TL (East, 2008, p. 16). Some educators believe that the CLT approach should emphasize the use of the TL exclusively, in which case, bilingual dictionaries would not be appropriate since bilingual dictionaries utilize the NL of the learner (East, 2008, p. 16).

Monolingual dictionaries offer different advantages and disadvantages to the FL learner. They are very useful and important for students of more advanced levels (East, 2008, p. 17). A

monolingual dictionary forces the user to only use the TL and creates more internalization of the TL without the barrier of the NL (Underhill, 1985, Adkins, 1985, cited in East, 2008, p. 16). Internalization of the TL means that learners would be using more of the TL and start thinking more within the TL than referring back to their NL. Unlike the bilingual dictionary, the monolingual dictionary would be a great tool for learners to access, if educators believe CLT should promote the use of the TL only (East, 2008, p. 15).

However, the monolingual dictionary does not exist without disadvantages. In order to actually use a monolingual dictionary, students may first have to consult a bilingual dictionary since they may not even know the initial letter of the word in the TL (East, 2008, p. 18). This occurs because headwords on pages are only in the TL (East, 2008, p. 17) and it is difficult to locate a word by sense alone (Winkler, 2001, p. 241). If a word is found in the monolingual dictionary, definitions are particularly difficult to understand, especially definitions or forms of conditionals, indirect questions, relative clauses, passives and idiomatic phrases (Amritavali, 1999, cited in East, 2008, p. 18). Also, monolingual dictionaries utilize a certain register that must be interpreted to understand the definitions (Thompson, 1987, cited in East, 2008, p. 18). For example, *of or relating to* is a phrase that is a specific register typical of dictionaries and not used in everyday language. Therefore, FL learners are greatly affected since they might never have encountered the phrase in the TL prior to using a monolingual dictionary. Even native speakers using a dictionary in their NL can become frustrated using monolingual dictionaries (Worsch, 1999, cited in East, 2008, p. 18).

As mentioned earlier, the bilingualized dictionary is considered a hybrid of a monolingual, bilingual, and a pedagogical dictionary (Hartmann, 1994, cited in East, 2008, p. 20). The bilingualized dictionary seems to win with the most advantages and fewest

disadvantages. However, the disadvantage is stifling: they are not widely available nor widely used (East, 2008, p. 21). One advantage of a bilingualized dictionary is that it allows students to find words they do not know in the TL, which is not possible in the TL monolingual dictionary (Winkler, 2001, p. 244). If learners have no knowledge of a TL word, they can simply search for the word they need within the NL section of the dictionary; the bilingualized dictionary then produces the TL equivalencies for the NL word. The dictionary could be beneficial in writing because there is additional information beyond the direct TL translation of words (East, 2008, p. 21). English language learners benefit from them because they have both NL and TL definitions (Loucky, 2002, p. 300). East claims "Bilingualized dictionaries may be 'the way to go' in the future" (2008, p. 21).

Electronic tools offer users concrete advantages in addition to their convenience. Electronic tools tend to be more interesting to use and well-balanced for students (Loucky, 2002, p. 303). Students find them more interesting because many of them enjoy using various forms of technological devices, from cell phones, to videogames, to computers. Because they find them more interesting there is reason to believe that electronic tools create more motivation and increased effort that would never exist with print dictionaries alone (Nesi, 1999, p. 64; Peters, 2007, p. 37). This increased effort encourages browsing, resulting in more vocabulary acquisition (Guillot & Kenning, 1994, cited in Nesi, 1999, p. 64). If students spend more time looking at and reading words, they are likely to increase their vocabularies. Regarding the use of electronic tools, Guillot and Kenning report that students looked up words spontaneously and words that were not all that necessary just out of curiosity. The students later commented how easy it was to look up the words (Guillot & Kenning, 1994, cited in Nesi, 1999, p. 65). Another great benefit of electronic tools is their capability for multimedia, such as sound, images, and

video (Winkler, 2001, p. 231) that allow users to hear a specific word or phrase, or see and hear the word being used. Finally, some electronic dictionaries have the ability to archive and save previously searched words (Loucky, 2002, p. 296). This is helpful to students if they need to refer back to a word they have forgotten, yet already searched for once. This ability to record benefits researchers as well by tracking which words students look up, and how many words students look up (Peters, 2007, p. 36).

There are some debatable advantages of electronic tools. Users have instant access to a database which can be much larger than a single book (Nesi, 1999, p. 56). This can be advantageous in the fact that a student can have with them a device or program that contains an enormous amount of information, but not have to possess an entire printed book with all of that information. However, as discussed earlier, the larger the dictionary, more skills are necessary to decipher the information (Nesi, 1999, p. 55; Tomaszczyk, 1983, cited in East, 2008, p. 17). Depending on the tool, some entries can be printed out or copied into a separate file (Nesi, 1999, p. 56). This means that some electronic tools enable users to copy and paste exact definitions into documents like Microsoft Word or other various programs. Copying and pasting a definition helps the student to perform the task quickly; however, they do not have to reformulate and process the word further by writing it on their own. In addition to transferring the information to another file, some tools enable users to print a hard copy of the definition for their own use, or teachers can print out entries if some users do not have access to the actual tool (Nesi, 1999, p. 56).

There are concrete disadvantages of electronic tools. Some concrete disadvantages to electronic tools are their cost and hardware requirements. Depending on the tool, some can be more expensive than print dictionaries (Loucky, 2002, p. 305). Additionally, they may break and

wear out easier, and they require a power source (Loucky, 2002, p. 305). Some electronic tools may require extensive high-powered hardware to function which may not always be available (Nesi, 1999, p. 56).

There are also debatable disadvantages of electronic tools regarding their difficulty of use, comprehensiveness, and accuracy. Depending on the device or software, the electronic form may be just as or more difficult to use as a print dictionary (Loucky, 2002, p. 305). In terms of content, some may not be as comprehensive as the print form (Loucky, 2002, p. 305). In a sample of 494 Hong Kong students, many agreed that print dictionaries were more accurate and detailed than their electronic ones (Taylor & Chan, 1994, cited in Nesi, 1999, p. 57). Of course, accuracy may depend on the user, the electronic tool, or brand.

Convenience of Language Tools

Some language tools shine in the category of convenience, while others fail. Print-based bilingual and monolingual dictionaries require lengthy amounts of time to use them, while electronic bilingual dictionaries are proving to be more convenient and efficient. Loucky (2002) compared the use of a paper bilingual dictionary to electronic dictionaries among Japanese students and found that the paper form was never the quickest tool when searching for words. In fact, for one group of pre-advanced engineer students, the paper dictionary required the most of their time, 7.2 minutes to search for 10 words compared to 5.9 minutes using a computer-based dictionary (Loucky, 2002, p. 309). Loucky declares that this advantage of speed allows for a more cognitive processes to occur, speeding up the ability to understand more words of the TL lexicon (2002, p. 303). This quickness factor may in fact help students' reading comprehension, which, as noted earlier, could be inhibited with use of printed bilingual dictionaries. Also, only 20 percent of the Japanese students actually carried print dictionaries due to their weightiness or

slowness, making them even less convenient (Loucky, 2002, p. 300). Monolingual dictionaries could be the least convenient language tool since TL definitions must be decoded and understood (Loucky, 2002, p. 298).

To help determine convenience, one should also consider which tools learners actually own and use. In a case study of dictionary use across Europe, the Exeter survey of British students indicated that 77.2 percent of students owned a bilingual dictionary, the dictionary that is most owned after their NL monolingual dictionary (Hartmann, 1999, p. 43). Unfortunately, the survey did not reveal how many students owned a monolingual dictionary of a TL. Regarding preference, even language teachers at secondary schools and universities rely more on bilingual dictionaries than TL monolingual dictionaries (Tomaszczyk, 1983, cited in East, 2008, p. 22). Midlane (2005) agrees that more bilingual dictionaries are owned than monolingual dictionaries (as cited in East, 2008, p. 22). A bilingual dictionary is a primary tool used by students despite teacher preferences (Midlane, 2005, cited in East, 2008, p. 14). Regarding electronic dictionaries, the Exeter survey confirmed that about 33 percent of students owned an electronic dictionary of some kind (Hartmann, 1999, p. 43). The researchers correctly hypothesized this outcome since they had believed that the electronic dictionary "had not fully arrived" and just over 25.8 percent of their student sample owned a personal computer (Hartmann, 1999, p. 43). To dive deeper into the electronic category, the Exeter study revealed that of the students who owned an electronic dictionary, 7.1 percent owned a portable electronic dictionary (PED), 22.3 percent owned a dictionary in the form of a personal computer, and 3.5 percent utilized a dictionary of an unspecified format (Hartmann, 1999, p. 43). In a study by Loucky, out of a sample of 43 Japanese students, only 14 percent had their own PED (Loucky, 2002, p. 295). It is important to consider that these statistics provided by Loucky (2002) and Hartmann (1999)

were gathered a little less than one decade ago and they could possibly have collected very different data in the current year of 2009 since technology now is likely more widespread worldwide. However, in 1999, Nesi stated that in Hong Kong, Taiwan, and Japan, PEDs were very popular because the technology was more available and the users could afford to purchase them (p. 57), yet no actual statistics were reported.

The Use of Language Tools

This section will focus on the process by which students use language tools and the situations they encounter when using them. If dictionaries are used correctly, FL learners can greatly benefit from them; however, used incorrectly, dictionaries quickly become a hindrance (Berwick & Horsfall, 1996, cited in Winkler, 2001, p. 229). Winkler claims that we still lack sufficient knowledge about what happens when dictionaries are used (2001, p. 228). Atkins agrees that dictionary consultation process is very complex, and believes that much more research is needed before lexicographers have enough information about the users that will allow them to make better dictionaries (Atkins, 1998, cited in Winkler, 2001, p. 228). Additionally, Winkler claims that part of the problem regarding the misuse of dictionaries is students' lack of dictionary skills and training (Winkler, 2001, p. 228). Winkler's study of CD-ROM dictionaries (2001) provides more specifics of language tool use. Winkler's conclusions were that the CD-ROM dictionary required a different navigation and searching process than the typical and conventional paper dictionary (Winkler, 2001, p. 244). Because technology is ever-changing, there is very little information about how electronic dictionaries are used (Nesi, 1999, p. 63). Therefore, most of the information in this section will point toward printed language tools.

The process of using a dictionary requires many skills on behalf of the user in order to understand and use the information. Users must have the ability to infer or "work it out," thus requiring active learner participation (Schofield, 1982, p. 185). Students must be able to follow steps, use prior knowledge and know language rules as well as dictionary conventions (Schofield, 1982, p. 185). The use of dictionaries also requires strategy (Schofield, 1982, p. 185). Using a dictionary is like fixing a machine when it is broken; a mechanic must locate the problem area and find a correctly matching part that will be sufficient for its repair (Schofield, 1982, p. 185). Although Schofield's process focuses on the use of an English monolingual dictionary, many of the same concepts can be applied using bilingual dictionaries.

To demonstrate the complexity of dictionary use, Schofield (1982) describes a 7-step detailed process. First, the student must determine the word or phrase that is not understood in the text (1982, p. 186). This step can be more difficult than it sounds. Some learners may recognize a word, but it may be used in an untypical way, making the sentence unclear to them. Students may also need to realize that they may have to look up more than one word (1982, p. 186). Schofield's example is *The members moved a new proposal*. A student may have seen the word *moved* before, but not know it in this context. Second, if the unknown word is inflected, the inflection must be removed to be able to look it up in the dictionary (1982, p. 186). Words that have regular inflections do not cause problems; however, words like *mice*, *sank*, or *better* will require that the learner take additional steps since some words are irregular in their plural, past tense, or comparative forms. The third step, if the word cannot be located after removing the inflection, is to scan the alphabetical list of the dictionary to try and find the original form because good dictionaries offer cross-references to the original word (1982, p. 186). If the word still cannot be located, the fourth step is to (a) try looking up each main element of the phrase,

idiom, or compound word or (b) try removing prefixes or suffixes and searching for the stem of the word (1982, p. 186). Both sub-steps (a) and (b) require inference skills on the part of the learner (Schofield, 1982, p. 187).

The fifth step is even more challenging: if there are multiple senses or homographic entries, the learner must reduce them by process of elimination (1982, p. 188). In order to complete this step, the student must evaluate the following information within an entry: pronunciation, part of speech, grammatical subclasses, style, collocation or selection, and the meaning (1982, p. 188). Most good dictionaries will list the definitions of polysemous words, words with multiple uses, in order of the most common, but all definitions should be read before deciding which the word means (Underhill, 1980, cited in Schofield, 1982, p. 188). A great example of a polysemous word is *lead*. Students can use their knowledge of pronunciation or part of speech for this word to determine which meaning to choose. However, sometimes different meanings are available even within the same part of speech (Schofield, 1982, p. 188). In the previous example, *lead* can be a non-countable noun referring to the mineral or a countable noun referring to a character part in a performance. If the students do not know how to use pronunciation information, it is possible for students to use their grammatical knowledge of articles to determine countability (1982, p. 188). Stylistic information, the use of words in specific contexts or localities, can be helpful, but most words are "stylistically neutral" (1982, p. 189). Finally, students should eliminate options based on collocation or selection information provided. This sub-step requires inference and it may or may not be possible for the student to select the correct use, depending on the student, the dictionary, or the context of the sentence he or she does not understand (1982, p. 189).

The sixth step is to understand the definition that was selected and integrate it into the context where the unknown element was found (1982, p. 190). Even this step is challenging as some students may not understand the definition, especially if a student is using a monolingual dictionary in their TL or is unfamiliar with the register of the dictionary (1982, p. 190). If students have trouble with the language of the dictionary, they will have to go locate any word within the definition that they do not comprehend. Common words used in dictionaries to describe other words are: *instrument, substance, vehicle, apparatus, action, state, process*, etc. (1982, p. 190). Once the definition is understood, then students must adjust for many elements such as complementation, collocation, part of speech, or breadth of meaning to understand it within the text they are trying to understand (1982, p. 190). Usually to determine the meaning of a sentence, a student may actually have to add collocations as in this example: *Information about our plans seems to have leaked out***.** If *leaked out* were to be replaced with the definition of "of news, facts, etc., that ought to be secret to become known" the original sentence would not make sense. However, if the phrase *ought to be secret* is added to the original sentence it would make sense as the following: *Information about our plans, that ought to be secret, seems to have become known* (1982, p. 191). Parts of speech may also require adjusting the sentence to produce a syntactically comprehensible statement. Another difficulty students encounter when processing new lexical information from dictionaries is adjusting for pragmatics, as in the example of *a lunar landing*. One should realize, after looking up the word *lunar*, that when fitting the word back into the context, the phrase is not referring to the landing of a moon, but a landing on the moon.

The seventh and final step of the process is that if none of the meanings located seem to match the context, a student should try to infer one that is the closest to the context; if more than

one is close, look for further clues in the text to disambiguate the options (1982, p. 193). The process of dictionary use is long and intense and because of these long steps it is easy to understand why using a dictionary is a last resort act (Schofield, 1982, p. 185).

The Pedagogical Integration of Language Tools

If language tools are used in a FL classroom, students should know and learn how to use those tools and the tools' limitations. Students' ability to effectively use such tools may depend on the instruction teachers give them. There are many ways of instructing students in the use of language tools and the instruction of such tools may be tedious. This section focuses on literacy and language tools, integration of language tools by teachers and supporting programs, and various methods of language tool integration.

A good metaphor for literacy and the integration of language tools could be compared to technology integration. There was a project developed in New Delhi that was considered *minimally invasive education* because computers with limited Internet access were placed in kiosks in the city streets within the poorest communities. The computers were inside a booth while joysticks and buttons simulated a mouse; however, keyboards were not provided. No instruction was provided for the use of these computers because the idea was to see how much users could learn on their own, given 24-hour access (Warschauer, 2002, A Slum "Hole in the Wall," para. 1-2). It appeared that the kiosks were a thriving success according to some researchers (e.g. Mitra, 1999) and would bridge the poor into the computer age (Warschauer, 2002, A Slum "Hole in the Wall," para. 3). However, upon closer inspection, it was realized that although the children knew how to use the joystick and buttons, they mainly spent all of their time drawing with paint programs and playing computer games (Warschauer, 2002, A Slum

"Hole in the Wall," para. 3). Most parents in the neighborhoods were concerned that the lack of organized instruction took away from the value of the kiosks. Additionally, some parents even thought it was harming their children and for good reason, since parents thought that their children were not concentrating on schoolwork and spending all their time in the kiosks (Warschauer, 2002, A Slum "Hole in the Wall," para. 6). As Warschauer states, "'minimally invasive education' was, in practice, minimally effective education" (Warschauer, 2002, A Slum "Hole in the Wall," para. 6).

Warschauer (2002) goes on to provide several different examples of programs around the world that supplied hardware and technological devices without proper educational integration which resulted in the perpetuation of a literacy divide. He claims that the digital divide could be compared with the literacy divide (Warschauer, 2002, Literacy, para. 1). Warschauer (2002) has many conclusions regarding literacy. The one that is most applicable here is that "Literacy is a social practice, involving access to physical artifacts, content, skills, and social support (Warschauer, 2002, Literacy and ICT Access, para. 1). This conclusion about literacy can be related to any area of learning that involves tools and resources. According to this conclusion, if the children in New Delhi had received instruction and guidance for developing useful skills with the computers, perhaps parents would not have complained and students would have used the computers to achieve specific and meaningful goals. Likewise, if language tools, such as mono- = and bilingual dictionaries, PEDs, CD-ROMs, Quickionary pens, or WBMTs are left in the hands of students without proper instruction or mastery skills, it is likely that these tools would not benefit them, enhance their ability to communicate in the TL, nor cross the literacy or digital divide in regards to language tools. Language tools may then serve only to distract students, as confirmed in the study of computers in the streets of New Delhi.

Instructional Integration of Language Tools

According to the European Council's report on dictionaries across Europe, many teachers and teacher instruction programs dismissed the instructional integration of dictionaries because dictionaries were thought to be a hindrance rather than a helpful tool (Hartmann, 1999, p. 78). In fact, during the 1980's dictionary skills were ignored because of the previous argument that learners were incapable of using such a tool correctly and therefore discouraged them in the hands of young learners (Horsfall, 1997, cited in Hartmann, 1999, p. 78). Also, within teacher training programs, dictionary skills were ignored because curriculums were already full with enough topics such as classroom management, teaching strategies, and assessment (Hartmann, 1999, p. 78). Additionally, more attention was given to effective vocabulary acquisition techniques of the TL and the dictionary process was not considered as an essential portion of that process (Hartmann, 1999, p. 78). However, studies have proven that the use of bilingual dictionaries can increase acquisition of incidental vocabulary (Knight, 1994, p. 286).

Although dictionaries have been shunned in the past, there now seems to be a positive attitude toward them. In a survey conducted across 100 secondary European schools in 1997, 86 percent of teachers agreed or strongly agreed that dictionaries were helpful to their students and 91 percent of the teachers believed that dictionaries are an essential language tool (Hartmann, 1999, p. 81). However, this survey also indicated that teachers were concerned that dictionaries should not be used to translate into the TL; instead teachers believed the use of dictionaries should be a priority in helping to understand the TL (Hartmann, 1999, p. 81). As of 2000, the Qualifications and Curriculum Authority of England has developed regulations regarding the use of dictionaries for their advanced General Certificate of Secondary Education exams. Now, students will only be allowed to use dictionaries in internal coursework, but not on externally

assessed exams (Hartmann, 1999, p. 82). The same document that dictated the previous regulation also stated that when used effectively, dictionaries are a valuable learning tool; however, used ineffectively they could hinder developing language skills (Hartmann, 1999, p. 82). It is interesting to point out that dictionaries or other language tools can be used effectively and be an asset in language instruction, yet the development of skills using language tools are not widely promoted.

Therefore, if students need to become skilled in using language tools of various kinds, teachers need to develop certain skills and knowledge among their students regarding the use of such tools. In some European universities, dictionary skills are being integrated into the teacher preparation curriculum. In the postgraduate courses at Exeter University, workshops of two to three hours are held on the strategies to acquire and develop the effective use of bilingual dictionaries in order to help them know and learn more about teaching dictionary strategies (Hartmann, 1999, p. 79). Some of the topics which they cover in these workshops include dictionary contents, abbreviations, headwords, how to look up verbs, polysemous words, looking up phrases, and false cognates (Hartmann, 1999, p. 80).

Methods of Language Tool Integration

There are several different methods of integrating language tools. These methods can also be referred to as exercises or activities. According to Barbe, language awareness should be developed among FL students to wean them away from thinking in one-to-one equivalencies (2001, p. 67). One-to-one equivalencies occur because students are usually familiar with using glossaries and only obtaining one definition per term (Barbe, 2001, p. 67). Barbe (2001) also provides many language awareness exercises using print and electronic bilingual dictionaries. In one exercise, a teacher provides a full entry for a certain word and gives this copy to all the students. Then, in small groups, students compare their entry for the same word according to their own different dictionaries to discover similarities or differences (Barbe, 2001, p. 68). Within this activity teachers could discuss abbreviations used by different dictionaries within the entries of the same word (Barbe, 2001, p. 68). In another activity, students search for the parts of speech of specific words the teacher has given to the students. Students could categorize words into various categories according to their parts of speech, located by using dictionaries (Barbe, 2001, p. 70). Activities with idioms are also beneficial. The teacher can give students a list of idioms with their meanings, underline a TL word within the idiom and have students search for the word to see if that word maintains the original meaning within the idiom (Barbe, 2001, p. 70). Another activity would be to give students word selection errors made by other students and have students replace the incorrectly chosen word with a correct word. The teacher should also discuss these mistakes to help students realize why the mistake occurred (Barbe, 2001, p. 70). Some activities using electronic dictionaries would be to have students look at TL word with many different meanings in different sentences. From this point students would determine their NL definition using a print dictionary. Then, using an electronic dictionary, students can

compare the information supplied in the print dictionary to that of electronic dictionaries (Barbe, 2001, p. 72). These activities can be humorous and fun for students (Barbe, 2001, p. 73).

Another method of integrating language tools is used at Oxford Brookes University. Several activities are included in a module for international students entitled, "Key Academic Skills for International Students" (Nesi & Haill, 2002, p. 278). The purpose of this module is to give students essential study skills that all university students need (Nesi & Haill, 2002, p. 278). There are actually four assignments in the module mainly involving library research, but one of the assignments contains a section on dictionary use. The dictionary use activity asks students to select any text of their choice from any source and then select five lexical items that were previously unknown (Nesi & Haill, 2002, p. 278). Students have to complete various activities regarding their five unknown items. Some of the activities include writing the definitions from two different dictionaries for their chosen words, determining the meaning of the words according to the context in which they were found, explaining problems of locating or evaluating the definition of items, and stating overall satisfaction or dissatisfaction with various aspects of the dictionary tool. Students are also required to determine which dictionary was most helpful and why. The dictionary section of the module is then graded according to the following criteria: attention to detail in the research, clarity and thoroughness of explanation, and the quality of analysis (Nesi & Haill, 2002, p. 302).

In order to develop electronic literacy, students have to learn to evaluate WBMTs from different perspectives and evaluate new information processing and communication tools (Williams, 2006, p. 567). The development of language skills and electronic literacy can also be integrated into pedagogy by analyzing and discussing WBMTs.

There are many ways to integrate WBMT instruction. Students need to be aware that free online versions of WBMTs often produce inaccurate and unacceptable translations which cannot be used for writings and homework assignments (Williams, 2006, p. 567). Many educators feel that the use of this tool creates an issue of academic dishonesty since students are not actually processing the language themselves (Williams, 2006, p. 566). However, teachers can use WBMTs in a positive way, by demonstrating the strengths and weaknesses of WBMT and analyzing its translation errors in relation to lexical items and syntactic structures (Williams, 2006, p. 566). In this way, students get a clearer understanding of WBMTs and overall language; students could then determine when, if ever, WBMTs are an appropriate tool for certain purposes (Williams, 2006, p. 566). In order to achieve this understanding, students should practice with WBMTs such as Alta Vista-Babel Fish, Google Translation, and Free Translation on the Web (2006, p. 567). They should also note the problems that translators have with prepositions, adjectives, nouns, verbs, and verb phrases. McCarthy claims that students should be given the opportunity to see and understand what he declares are translation traps (McCarthy, 2004, Translation Traps, para, 2). Students can be given a list of translation traps, and common problematic expressions that will eventually help them realize that they cannot rely on a mechanical application of basic language skills (McCarthy, 2004, Translation Traps, para. 4). In Appendix B, there are examples of translation errors produced by the three translators mentioned earlier.

Several other activities using WBMT instruction are more specific. One way to demonstrate to students the weaknesses of translators is to translate a short, correct article in the TL into the students' NL. Then, compare the true translation to the machine translation (McCarthy, 2004, Gisting, para. 1). Students usually have a profound reaction to this activity by

noting what the machine is and is not capable of doing (McCarthy, 2004, Gisting, para. 1). By completing this type of activity students can gain the appreciation of gisting, which is translation for understanding rather than publication (Lockwood, 1999, cited in McCarthy, 2004, Gisting, para. 1). Another activity that is useful in demonstrating the limited capabilities of WBMTs is ping-pong translation or backward translation (Richmond, 1994, cited in McCarthy, 2004, Ping-Pong Translation, para. 1). This type of activity uses a WBMT to translate a NL document into the TL, then back into the NL. A comparison should then be made to the original to show the tool's imperfections (McCarthy, 2004, Ping-Pong Translation, para.1). It is important for students to see that they can actually beat the translator in certain areas like intuitive recognition, interpretation of semantic units, and cultural context even if grammar, punctuation, or spelling is unconventional (McCarthy, 2004, Ping-Pong Translation, para. 2).

Teachers have to be very careful in their integration of WBMT tools (McCarthy, 2004, Strategies for Accommodating Babelfish, para. 1). For example, if teachers continue to grade assignments that have been completed with a WBMT, they are in effect permitting plagiarism, although being fair. If teachers ban the use of WBMT, students of course would be deterred from using it; however, in several cases, it is difficult to determine which students did or did not use the tool since some WMBTs do come up with typical or valid translations of the actual TL (McCarthy, 2004, Strategies for Accommodating Babelfish, para. 2). If teachers want to ensure that students are not using WBMT, they can create assignments under exam-like conditions, but there are several drawbacks to this method as well: students have limited time to complete activities; some students do not perform as well under timed conditions; and students are deprived from a wide range of resources and time to correct or change their assignment based on new information gathered (McCarthy, 2004, Strategies for Accommodating Babelfish, para. 4).

Additionally, Williams claims that students should analyze WBMT products, learn about product placement, and discover discourse of marketing to gain better electronic literacy (2006, p. 566). Students need to understand WBMT products because the preparation of second language learners to meet political, social, and economic challenges of the future will depend on the successful integration of technology into foreign language classrooms (Hall, 2001, cited in Williams, 2006, p. 566).

Based on this research, it is obvious that there are many language tools to choose from which students and teachers can choose. Each tool creates various advantages and disadvantages upon its use. Beacuse the use of language tools is controversial within language learning, more research must be done on the use of many tools such as the electronic tools and the required steps the users must employ. If teachers believe that the use of language tools is beneficial to their students, they must realize that certain language tools require an intricate process to be used effectively. There are many activities and methods to inform students of the several different tools which they likely use.

Methodology

The previous literature analysis was very helpful when I began to investigate the use of language tools in my Spanish 3 classrooms. Based on the literature, I realized that the main questions I wanted to answer in my research were:

(1) Which language tools do students use frequently?

(2) What problems do my students have when using specific language tools?

(3) What are students' perceptions of the language tools they access?

In order to answer these questions, I planned to conduct the qualitative research in three sections of my level 3 Spanish classes. I carried out three qualitative investigation methods, also known as triangulation (Waxman & Padrón, 2004, p. 92). The three methods of data collection that I chose were: completion of a needs assessment, observations of students using language tools, and dialogue journals to obtain students' perceptions of language tools. Each section contained 29 to 32 students. There were 93 total students in these three classes combined; however, due to some absences, not all students completed the needs assessment, were observed, or completed dialogue journals. This action research project involved an assignment in which students were to read newspaper articles in Spanish and write summaries also in Spanish. The evaluation of their written summaries also provided some data about how effectively students used language tools.

According to data obtained within the needs assessment, the percentage of male and female students is approximately equal. Also, a majority of the students in this research were in Grade 10 and 15 to 16 years of age.

Table 1. Gender, Grade, and Age of Participants

Gender	Percentage	Grade	Percentage	Age	Percentage
Male	48.2	9	2.4	15	37.6
Female	51.8	10	54.1	16	42.4
		11	34.1	17	15.3
		12	9.4	18	4.7

Additionally, 80 percent of students reported that English was their first language they learned to speak, 9 percent declared Spanish as their first language, and 11 percent declared they had learned other languages as their first language. Such languages included, but were not limited to French, Punjabi, Vietnamese, Korean, and Japanese. Experience studying the Spanish

language is also an important factor to determine. The needs assessment also revealed that 63.5 percent of students have had two years of experience prior to the current year studying Spanish. Native Spanish speakers, students who have had to retake courses, or students that were involved in a foreign language elementary school program most likely account for the students that have 4 to 6 or more years of experience with Spanish. These students were vital to carrying out my action research that involved a needs assessment, observations, and dialogue journals.

Needs Assessment

There are several phases of conducting a needs assessment which consist of planning, data collection, and analysis (Morrison, Ross, & Kemp, 2007, p. 36). Prior to gathering data and analyzing my students' needs regarding language tools, I first had to plan the best way to determine the needs of my students. There are a couple ways to gather this data, some of which include questionnaires or interviews (Morrison, et al., 2007, p. 36). An online data collection service known as Survey Monkey provided the best way to assess my 93 FL students adequately and efficiently. As part of the planning process, I developed a 19-question survey aimed at determining the language tools that students use and their experience with such tools. Some questions tested students' knowledge and ability to use excerpts from actual language tools. The types of questions in the survey varied. Some were single-answer multiple choice, all-that-apply, short answer, and Likert Scale questions. A copy of this survey is found in Appendix C.

The second phase of the needs assessment was data collection. The students utilized 20 personal computers and 8 to 12 laptops in the library that granted them Internet access in order to complete the survey. As required by the school division, students had to have a permission form signed by their parents in order to access any computer in the school. Students accessed the

survey from the link I had posted on our online class webpage. Once students logged into the school network, opened an Internet browser to access the Spanish 3 website, and located the survey link, students could start answering the questions. Survey Monkey collected the anonymous data as students fully completed the survey. If students left a question unanswered, the program would tell students to revisit the question left unanswered. Once the survey was completed, students were not allowed to return to change answers. They were then directed back to the class web page.

The final phase of the needs assessment was the analysis of the data collected from the online survey. Although more detail will be given later of the results of this survey, some important information was gathered to help with the continuation of my research. In the survey I had asked students how frequently they use the various language tools mentioned in the literature review. The analysis of the Likert Scale question overwhelmingly concluded that students used bilingual paper dictionaries, online dictionaries, and WBMTs the most. This information was crucial for the next step of my research because it helped me to determine which language tools I should observe my students using.

Observation of Students Using Language Tools

Based on the data of the needs assessment, I decided to observe my students using bilingual paper dictionaries, WBMTs, and online dictionaries. In order to observe them interacting with these language tools, I had to develop an activity which would require my students to use these tools. I decided to develop a project assignment similar to the module used by Oxford Brookes University and correlate it to the curriculum standards my students would be studying at the time (Nesi & Haill, 2002, p. 278). My students were currently studying the

Spanish-speaking countries of the Caribbean. Therefore, I decided to require my students to use various online news websites from each of the three Spanish-speaking countries. They had to choose three articles to summarize and each article had to be from a different Caribbean country's news page. Although the module titled "Key Academic Skills for International Students" at Oxford Brookes University allowed students to freely choose any text to work on dictionary skills, I limited students to using specific news websites that did not have an English version of the same news. Also, to encourage students to learn about the specific Caribbean country and adhere more closely to curriculum standards, I required students to choose articles that pertained to the country. Then, I required students to write brief summaries in the TL about each article that they selected. One aspect I maintained from the Oxford Brookes module was the requirement that students had to select five previously unknown lexical terms as they were used in the context of their summary. Students had to create a glossary giving the part of speech and NL translation of the word that corresponded to the lexical terms bolded within their summaries. I provided them with an example summary and helpful questions that they should answer in order to help them develop a substantial summary. A copy of the assignment handout is in Appendix D.

The next step in preparing for the observation was to determine which specific language tools I wanted to observe my students using. I knew I wanted my students to access a bilingual paper dictionary, an online dictionary, and a WBMT. Since I possess 19 bilingual paper dictionaries in my classroom, I would allow students to access this language tool. The 19 bilingual print dictionaries that were available to the students were the *Larousse Concise Dictionary Spanish-English/English-Spanish*. After determining that our media center did not offer any access to a bilingual online dictionary, I found that Merriam-Webster offered public

schools free access for one month to their unabridged online dictionary. This tool gives students access to multiple online resources such as Spanish-English and French-English dictionaries, the Collegiate Dictionary, the Collegiate Thesaurus, the Collegiate Encyclopedia, and a Medical Dictionary. Therefore, I requested that our librarian obtain the free trial period for my students to access this language tool. In order to use this tool, students needed a username and password, which I provided for the students on my class webpage with the other links to each country's news sites (see Appendix D). The WBMT tool that I chose for my students to access was the Google translator tool. Since Google is a very popular and highly used website, I believed this WBMT would be the best to use. I also provided a link to this tool on my class webpage for student access.

In a school that does not provide computers or laptops in each classroom, my next step was to determine when and where my students would access the Internet for their project and use the language tools described. The library contains a computer lab with twenty personal computers within a room. In order to accommodate for and allow all my students to access the Internet, I also requested access to the portable laptop cart with a wireless server connection, usually containing 30 laptops. Therefore, my students used a combination of personal computers and laptops in the library computer lab on three individually scheduled days, one day each week for three weeks. To ensure that I would be able to observe students actually using language tools at these times and not have them complete the entire assignment outside of class, I posted only one country's news websites on my class webpage each time the class visited the library. Additionally, I placed a bilingual print dictionary in between every two computers or laptops in the library lab to give students access to that tool as well.

The final step in planning was to create an observation rubric. After looking at some sample observation rubrics (Richards, 1990), I developed my own observation rubric based on what I wanted to observe. Observation can range from highly structured, detailed notation of behavior guided by checklists, to a holistic description of events and behavior (Marshall & Rossman, 1999, p. 107). A copy of my observation rubric is in Appendix C. This observation rubric helped to describe students' actual tool usage when processing unknown TL words with the use of language tools. It also helped to determine which tools students used most frequently. I based my observation rubric around Laufer and Hulstijn's Involvement Load Hypothesis which supposes that students need, search, and evaluate in order to process new words in the TL (Laufer & Hulstijn, 2001, cited in Peters, 2007, p. 37). First I determined if a student needed a language tool. Within this category, I checked off if the student was using a certain tool and then placed a check in the appropriate subcategories, bilingual print dictionaries (P), Merriam-Webster online bilingual dictionary (MW), and the Google translation tool (G). If a student did not appear to be using any language tool, I placed a check in that subcategory. Within the search category I noted if a student was successful or unsuccessful in their search, and tried to determine the word for which they had searched. Finally, the last category of observation was students' evaluation of a word based on the results they had found using a language tool. If I saw students having trouble with abbreviations, register, or wording, I placed a check in that subcategory. Three other subcategories under evaluation were the need for assistance in choosing the correct word, the correct selection of the word, and the incorrect selection of a word. As I observed within the search and evaluation categories, I also used the P, MW, and G codes to help me later identify which language tool students were accessing when searching and evaluating. Regarding procedure of observation, as I circulated around the room while students

worked, I usually spent about 30 seconds to determine if a student was accessing a language tool. If the student did not access any language tool, I moved on to the next student. If the student had used a tool, more time was spent observing that individual.

Dialogue Journals

In order to obtain students' perceptions of language tools after using the tools within their project, I prepared dialogue journals for my students to complete each day after working on their assignment. The students completed three dialogue journals (see Appendix C). Dialogue Journal 1 required students to answer questions that focused on which tools students used the most, why they chose a particular tool, and what they liked or disliked about that tool. Prior to observing students the second time using language tools, I gave students a mini-lesson on the different capabilities and limitations of the three language tools (see Appendix D). I helped students determine common abbreviations in the print dictionary, the differences when looking at the MW online dictionary, and then the information given when using a WBMT such as Google. One reason I provided a mini-lesson was to see if any of the information during the mini-lesson changed the tools which students accessed most frequently. The beginning of Dialogue Journal 2 had the same question as Dialogue Journal 1 regarding how often students used each tool. Dialogue Journal 2 also asked students questions pertaining to how and why they were using such language tools. Another question asked students to describe the process or steps they used when accessing the tool of their choice. The questions I asked on Dialogue Journal 3 pertained to how confident they felt using the different language tools. One question asked students if they needed more practice with any of the language tools. Another question asked students if they believed that teachers should give more activities to assist them with using language tools.

The procedure to have students complete the dialogue journals was rather simple, but did depend on the agenda for the day. For example, Dialogue Journal 1 was given to students after they completed in vocabulary quiz. Students turned in their quiz, then picked up a prepared copy of the dialogue journal to answer. Students wrote out their answers directly onto each dialogue journal handout and then turned in their journal when finished. Dialogue Journal 2 was given to students upon completion of a class warm-up activity. Dialogue Journal 3 was given to students at the very beginning of the class period and then collected.

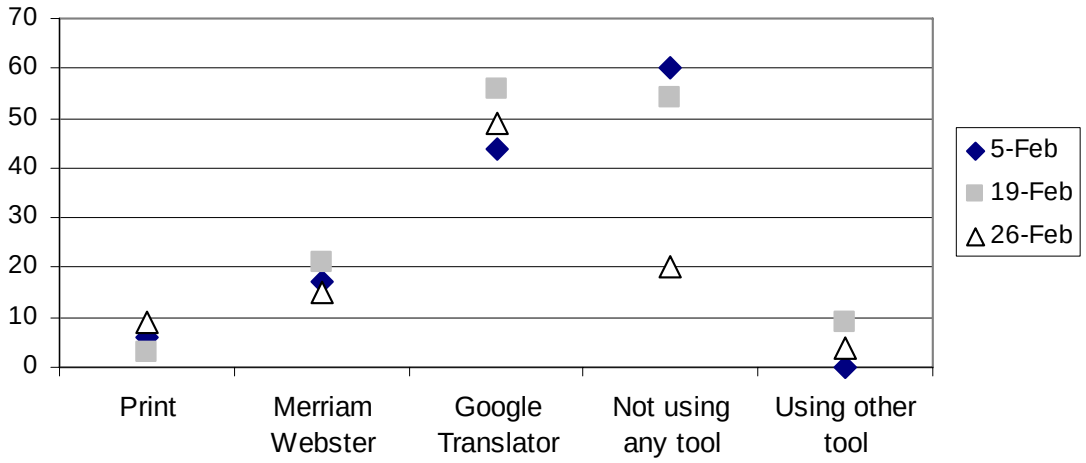
Analysis and Discussion

Because I performed triangulated qualitative research, I was able to compare and contrast the findings from each method. I compared the results of the needs assessment with my observations, while also accounting for students' perceptions based on their dialogue journals. I have based the research and analysis around the three areas I wanted to uncover within my research: the frequency of language tool use by students, student perceptions of language tools, and the problems students have when using language tools. Additionally, I was able to draw other conclusions not specifically related to the initial research questions.

The Frequency of Language Tool Use

Students use some language tools more than others. The needs assessment did not produce similar conclusions to the observations and dialogue journals. The needs assessment revealed that 66 percent of my students used a bilingual print dictionary frequently or occasionally, compared to 46 percent that used an online dictionary and 47 percent that used a free online translator for the same amount of time. According to this information, I should have observed more students using the bilingual print dictionaries (BPD) over the other two language tools. However, observations showed that on three separate occasions 6 percent, 3 percent, and 9 percent of the students used BPD compared to 44 percent, 56 percent, and 49 percent of the students that used the Google free online translator (GT) . Of the three tools that I supplied students, students consistently used GT more than the other two tools as seen in Figure 1. Since I was observing students individually, more students may have used BPD or the Merriam-Webster online dictionary (MW) when I was not observing them. One possible reason that the

Figure 1. Percent of Students Observed Using Various Language Tools



needs assessment data did not match the observational data is because the assignment that students were working on was an assignment already on the computer. In fact, at least two students stated in their dialogue journals that using online tools was more convenient since the project was online as well. Unfortunately, the needs assessment question did not specify which tool a student would use more frequently when working on a computer-related assignment. This factor could account for the different outcomes.

My observations did correspond with the information that students provided in their dialogue journals. Since students completed a dialogue journal the day after using language tools and working on their projects, their use of language tools was still fresh in their minds. On two separate occasions, 13.8 percent and 16.3 percent of students stated that they used GT "Very Frequently" (defined as 20 or more uses) which was higher than the BPD and MW tools. GT was also used by students more than the other two tools in the "Frequently" (15-20 uses) category, also on both occasions.

According to the dialogue journals, the percentage of students that used MW and GT tools "Occasionally" varied by approximately 10 percent. There is one possible explanation of why this variation occurred. The day prior to working on their projects the second time, I gave a brief mini-lesson on all the language tools available to them (see Appendix D). Within the lesson I showed students aspects they may not have realized about different tools, such as abbreviations and conjugation reference numbers in the BPD and MW tools. I had students practice looking up entries in the BPD tool and then we all compared results to entries of the MW as well as GT from a projected image on a screen, to show differences and similarities. This brief lesson may have given students more knowledge of the existence of MW, its

functionality, and its capabilities than they had previously received upon beginning the project, thereby increasing its use.

Regarding frequency of language tool use and the availability of technology, the needs assessment revealed some interesting findings. Of the 85 students that took the needs assessment survey, only 5 students stated that they had one or fewer computers with dial-up internet or less internet capability in their homes while four students stated that they were unsure of their technology situation or that none of the options described their technology situation. Of those five students, three students stated that they had used an online translator very little, and two students said they had never used an online translator. In contrast, 93 percent of students declared that they had at least multiple computers with dial-up or more internet capability. Of those students with greater technology access, 18 percent stated that they always use online translators and 32 percent occasionally used online translators. When comparing the results of students using free online bilingual dictionaries, the results were very similar to the online translator situation. This data shows that having more access to technology may affect how frequently students use online language tools.

Student Perceptions of Language Tools

It is a common thought that beliefs often dictate actions. There are usually reasons why people and students do the things they do, or why students use one tool more than other. In order to determine this, in Dialogue Journal 1 I asked students about what they thought of the tools they accessed. Students had some positive and negative comments about each tool. Some of their statements were also congruent with research uncovered in the literature review.

Very few students made comments about the BPD. Two percent of students that commented about the BPD stated that it was reliable, with correct meanings. Another 2 percent wrote that it shows stem changes as well as different uses and phrases. In contrast, 46 percent of the students' comments declared that the reason they did not use the BPD was because it was slow, and more specifically, had a slow searching process. Eleven percent of students stated that only one word can be searched for at a time, instead of searching for entire phrases. Many of these students that commented then would agree with Loucky in that print dictionaries require lengthy amounts of time compared to electronic dictionaries which are more convenient (2002, p. 309).

There were 24 evaluative comments in the dialog journals regarding MW. Of those comments, 16 percent claimed that MW was faster and more efficient than the BPD, and about 12.5 percent declared that it was easier to search than the BPD. The major disadvantage according to about 16 percent of students was that they could not copy and paste sentences or phrases into MW. However, what students did not state, yet implied within this comment was that they were able to copy and paste individual words into MW. According to Nesi, this is one great advantage of most electronic tools (Nesi, 1999, p. 56). Another 16 percent agreed that it took too long to find meanings in MW and that it did not define every word. This information then supports Loucky's claims that some electronic forms are not as comprehensive as the printed forms of dictionaries (2002, p. 305).

Students used the GT more than the other two tools; therefore, there were 96 comments made about its use. Regarding advantages, about 15 percent of the comments were that it was easy to use, while 12.5 percent of the comments declared that it was fast. One reason that students likely felt that GT was fast and easy to use was that they could translate more than one

word at a time, as noted in 14.5 percent of the students' comments. It is this factor that possibly attracts students to translators more than electronic dictionaries. On the other hand, it is possible that the assignment was dictating a certain need for a specific tool. Since students were required to select and read three articles in the target language about Spanish-speaking Caribbean countries, students needed to know the gist of an article before selecting it, instead of just selecting any article they could understand. It was interesting that of the dialogue journal comments about GT, a little over 8 percent stated that GT allowed them to get a good, general idea about what they were reading. This confirms McCarthy's suggestion that WBMTs can be used for gisting, getting the main idea of a text (McCarthy, 2004, Gisting, para. 1).

Although 63.5 percent of the dialog journal comments about GT were positive and noted its advantages, 36.5 percent of the comments remarked on some disadvantages of GT. Out of all comments made of GT, 11.5 percent of the comments declared that GT was not always completely correct. Also, about 16.6 percent of the comments were that it did not always translate all of the words requested and that it "messed up" words such as verbs, pronouns, time expressions, and the use of the subjunctive. My observations confirmed some of my students' perceptions in this area. I heard one student remark when using GT: "This doesn't make any sense. My article is about baseball and it says he took laps… this is messed up." Also, within my observations, I noted that students were unable to translate some words as students had claimed in their dialogue journals. Some words that students were unable to define using GT were *novoprogresista* 'new progressive' and *cuestionársele* 'questioning him or her'. There were a few comments that were not the majority of the disadvantages of GT, but were interesting. A little more than 4 percent of all GT comments claimed that GT does not give several meanings of each word and they cannot learn as much with GT.

In order to get more definite responses of student perception of language tools on Dialogue Journal 2, I had students determine which tool they thought was the fastest, the most difficult, the most accurate, and so forth. Of all students that completed Dialogue Journal 2, 89 percent claimed GT to be the fastest, 81 percent said it was the easiest, and 74 percent said it was the most helpful for reading. Of all students, 47 percent declared that MW was considered helpful when learning Spanish, 48 percent considered it helpful when writing, and 46 percent also considered MW to be accurate. In contrast, 80 percent of students thought that BPD was the most difficult, 57 percent though it helpful for learning Spanish, and 52 percent considered it to be the most accurate.

Based on students' self-reports in the dialogue journals, it appeared as if students have a good sense of how to use language tools and can access them rather quickly. On Dialogue Journal 3, students answered a question that asked them if they needed more practice using language tools and why or why not. Of the 99 comments that students made about the need for more practice with language tools, 83 percent of all comments rejected the idea that practice with language tools is necessary. Of those comments rejecting practice with tools, 33 percent expressed that language tools are simple and easy to use, while another 23 percent expressed that knowledge already existed regarding language tool use. Then, another 14 percent claimed that language tools were straightforward and self-explanatory. One student even wrote, "It's not rocket science." In contrast, 17 percent of all comments declared that more language tool practice would be beneficial. Of those comments hoping for more practice, 29 percent were analogous in that they needed more practice with the BPD since they use it the least. Those students also wanted to learn more about what BPD has to offer them.

Problems Students Have with Language Tools

Although students perceive that they can adequately use language tools, the results from the needs assessment and class assignment clearly show that most students lack skills to use certain language tools. I first looked at how students performed on a needs assessment question that required students to choose the correct English definition of an English word used in an English sentence. Students were supposed to produce the noun definition of the word *miss* as defined by a monolingual English dictionary selection, but the majority of the students defined the word in its verb form. Only 6.9 percent of all students answered the question correctly. Regarding the same question, I decided to compare those that stated they had some type of monolingual dictionary training to see if they were the students that answered the question correctly. Of the 49 students that claimed to have monolingual dictionary training, only 14.2 percent answered the *miss* question correctly. Of the 22 students without dictionary training, 13.6 percent still answered correctly. Therefore, according to these results, dictionary training had little effect on students' ability to determine the part of speech and definition of an English word.

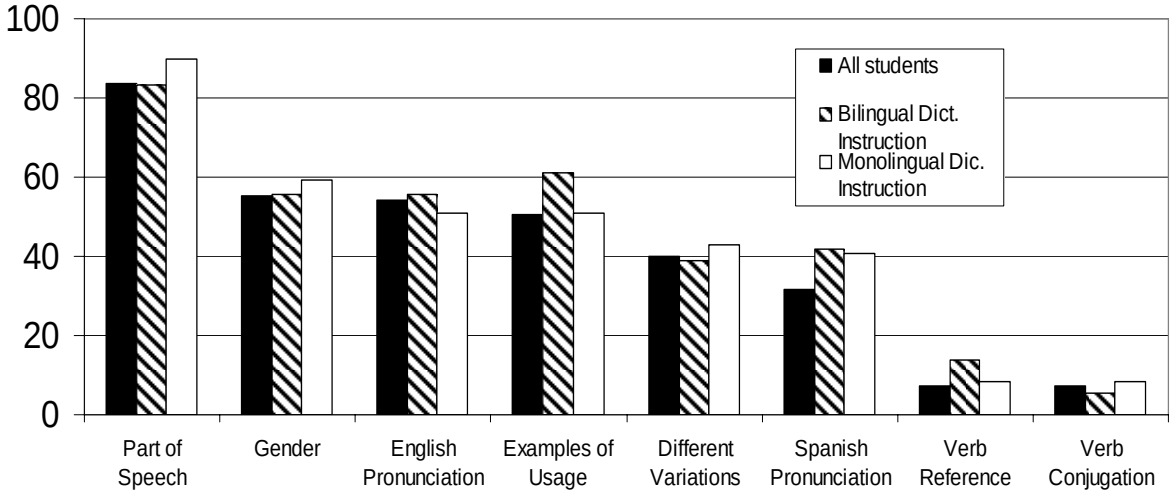
On the needs assessment another situation was given to students in which they had to determine which Spanish word would fit best within a sample sentence. Students had to choose between a two noun forms for the word *drizzled* and a verb form. The only correct answer was the verb form as used in the context of the desired sentence *It drizzled yesterday for two hours*. Overall, 38.4 percent of students chose the verb form. In comparison to the *miss* question and monolingual dictionary training, 50 percent of students with bilingual dictionary training answered correctly. In comparison, 31 percent of the students without bilingual dictionary training answered the *drizzle* question correctly. One could then conclude that some amount of

bilingual dictionary training may be somewhat helpful for students when evaluating a word found with the help of a language tool. However, this data shows the need for continued training and practice in the use of language tools.

In another question students had to identify what types of information was given to them within an actual selection from a BPD. Given a list of types of information that they might find in a BPD, students had to check the information that was supplied by the dictionary entry provided. The list included information that was not available in the entry such as *Spanish Pronunciation*, *Verb Conjugation*, and *Verb Reference*. Over 30 percent of students believed that a Spanish pronunciation was available to them when it was not. The only element that most students agreed (83.5 percent) was listed in the entry was the part of speech. Only about 50 percent of students acknowledged that gender of the word, English pronunciation, examples, and variations were available in the selection. Monolingual and bilingual dictionary training did not seem to make a big difference in this question as seen in Figure 2. The results of this question do show that students lack knowledge about the information available to them within a selection of a BPD.

The needs assessment results truly correspond and point to the difficulties students had in their projects. As part of their summary assignments, students were required to create a glossary of 5 words from each summary at the end of their summary. The glossary had to contain the definition of the word as it was used in their summary as well as the part of speech for each word. Of the 15 words they had to define within their project, about 10 percent of students were able to complete this task accurately for all 15 words. Of the 87 students that completed this assignment, about 45 percent incorrectly defined or incorrectly identified the part of speech for at least 5 words within their assignment.

Figure 2. Percentage of Students Responding Correctly on Needs Assessment about Information Provided in Bilingual Print Dictionary



Thirty-one percent defined or incorrectly identified the part of speech for at least 6 to 10 words, and about 14 percent did the same for 11 or more words. Some examples of the problems they had were stating that nouns were adjectives, prepositions were adjectives, adjectives were nouns, and so forth. For example, in the sentence *También habló de la estrategia de los entrenadores,* ('He also spoke about the strategy of the coaches') a student wrote that the word *estrategia* was an adjective although the definition was correct. An example of words chosen incorreclty within a student sentence is *Este articulo es de tres vacantes del Supremo por la izquierda judicial Jaime Foster, Batasar Corrada del Rio y Francisco Rebollo,* ('This article is about three Supreme vacancies left by judges Jaime Foster, Batasar Corrada del Rio, and Francisco Rebollo'). The student chose the word *la izquierda* ('left') which refers to the direction as in left or right. The student should have chosen the past participle form of the verb *dejar* ('to leave behind').

Throughout the observations of my students using language tools it seemed as if most students were able to gather all the information they needed with little or no teacher assistance. I

very rarely observed students actually analyzing and choosing words from any language tool. However, there were a few problems I observed. One student asked me when trying to find the word for *leader* within the BPD "How do I know which one I need to choose?" I of course helped her determine the part of speech she needed and what the equivalent word would be for her to use. Another student using BPD thought that the definition he received for the Spanish word *mayor* when defined as 'greater' or 'bigger' did not make sense in the context of the reading. However, I suggested that the student look for further meanings of the word and the student then found 'older'. This situation that I observed is an example of students thinking that words have just one definition and a one-to-one relationship as described by East (2008, p. 17). Another example was when a student looking for the meaning of *matrimonio* received only the translation 'marriage.' However, the student expressed to me that she did not think it was a correct translation of the word based on the context of the article. I suggested the student use another tool to see if there were further options, and the student did determine that it had other meanings such as 'married couple' from MW.

I also observed that, when they were accessing tools and searching for words, some students had difficulties. Specifically, students had trouble alphabetizing correctly to find words and locating words that were not recognized in GT or not in BPD at all such as *cuestionársele* 'questioning him or her', *Habana* 'Havana', or even newer words more recently created such as *novoprogresista* 'new progressive'. I also heard one student ask, "Is the Spanish or English section first in the dictionary?" Overall, as an observer, I felt that students were more comfortable using the BPD than MW as they had never used it in the past. Several issues developed with MW. On the first and second day completing the project, several students asked how to access the MW and I directed them to the link with user name and password also given to

them. A couple students believed that the tool did not define English words into Spanish since the only option between types of dictionaries within the MW access is titled as *Spanish–English*. On more than one occasion, I saw students forgetting to select the *Spanish–English* option. If they forgot to select that option, they ended up searching for an English word in the unabridged monolingual English part of the dictionary. If they mistakenly used the English unabridged dictionary and searched for a Spanish word such as *estrategia*, they received a list of words that may have been close to an English word, such as *estrogen*. At this point, the very few students I observed do this did not know what to do and sought out another language tool.

One student realized he could not put an entire phrase into the dictionary to define it. Instead, the student had to enter the phrase one word at a time to finally define it. One interesting fact that I observed and discovered about MW is that it does not recognize accents or tildes. For instance, I had observed a student searching for the word *montaña*. Knowing that this word is a rather common word, I was stunned when the student found out that MW had no definition for the word. Shocked at this situation, I asked the student to type in the word without the tilde over the *n*, and MW was then able to produce a definition. If students type or copy and paste words into the MW tool, it is likely they will not be able to locate any word with an accent or tilde. This tidbit of user knowledge can determine how effective and useful the tool is for students. Another interesting situation occurred when a student misread a word with a *q* instead of a *g*. She had typed in the word *sequir* instead of *seguir*. MW could not find her first attempt, but after I had suggested for her to check the spelling she later reported that she had spelled the word incorrectly. I observed a similar spelling situation when a student was using GT. This time, a student tried to determine the Spanish word for ‘relesed’. Once the student did not receive a definition, the student asked me for the correct spelling of the word. Therefore, spelling issues

can even arise when using online dictionaries and translators as well as printed dictionaries, thereby affecting the search process and access of a language tool.

Once a word was located, some students had trouble with definitions of words. After actually selecting the correct dictionary within the MW, one student stated, “So, where’s the definition?” In some of the defined entries, MW did not bold the actual definition of a word and required the user to read all that was given. Also, if there were multiple uses of a word, they were given in a side panel and not always shown on the same first page the student saw. Some students did not know they needed to click the side panel for further definitions and options.

From time to time, I observed students forgetting to click the “Swap” when using GT to switch back from English to Spanish or the opposite. I heard a few students remark that their GT Spanish to English translations were jumbled and not comprehensible in spots. Some students were suspicious of its accuracy, as for example when I heard the student comment about the “laps” taken by a baseball player.

Further Findings

One particular result that I had not expected to find was the ability of females to outperform males consistently on the needs assessment. I compared the percentage of correct answers between males and females for four separate questions on the needs assessment. On the *miss* question, 16 percent of females answered correctly in comparison to 5 percent of males. On the *drizzle* question, 45.5 percent of females answered correctly with *lloviznar* compared to 31.7 percent of males. The biggest difference between male and female answers was on a question in which a screen capture was taken of GT providing a translation of the word *estudiado* (‘studied’). Students had to determine the part of speech of this word based on the screen

capture or indicate that the part of speech was not provided. The option of "information not provided" was the correct response to the question. Students were to check all options that they thought were appropriate. Of the two genders, 63.6 percent of females and 39 percent of males answered the question correctly. It was also interesting to consider that 63.4 percent of males considered this word a verb and only 40.9 percent of females considered *estudiado* to be a verb.

During my observations, I witnessed some technical situations that I was not expecting. On one specific occasion, students using laptops were unable to log-in to the school network because the laptop power source had blown a fuse. The 10 to 12 students using laptops became very frustrated as they were not able to log on or work on their project. This situation also led to later battery failures on the laptops themselves, requiring some students to start the log in process over on another laptop. Although this problem was not any of their doing, it was a factor that did affect their ability to locate an article as well as use two of the three language tools. Also, during the first day of my observation, there were one or two students in each class that had either forgotten their password or were unable to log into the school network. As the project continued, log-in problems tended to subside. These technology related issues could affect teachers' desire to use electronic language tools in their classrooms. Loucky (2002) and Nesi (1999) both agree that electronic tools can break, wear out easily, require a power source, and may require extensive, high-powered hardware to function (Loucky, 2002, p. 305; Nesi, 1999, p. 56). These technology situations I observed point directly to some of the major disadvantages of using electronic tools.

Conclusion and Recommendations

After conducting this research, I have learned that students are likely to gravitate, if available, toward a tool that they consider to be easy, fast, and gives them the most information at once, even if it lacks sufficient accuracy and linguistic information. The tool which most students feel embody those characteristics is online translation such as GT. I also realized that although students feel confident in using language tools such as BPD, MW, and GT, based on their summary assignments and answers to questions of the needs assessment, they lack sufficient knowledge and practice to be able to utilize them correctly as Myers suggested (1994, pp. 195-196).

From a teaching perspective, certain tools may be helpful for different types of activities. One useful aspect of GT, which a few students even stated, was that GT helped them to get the gist of the article. If I were to conduct the Caribbean article summary project assignment again, I could specifically instruct students to use GT to get the gist of articles for the selection process. I could then have them print out the article in Spanish once located and use a tool such as BPD or MW for reading and writing their summaries within the constraints of class only, not allowing students to take the assignment home. This research has helped me to recognize how to better integrate language tools with assignments. Teachers should emphasize that certain tools may be more helpful in one situation over another, especially since most language tools have different advantages and disadvantages. I also recognized that students need to realize the capabilities and limitations of each tool they are using for language purposes. For example, students must realize when using the MW tool that it does not recognize accents or tildes. Although I only created and taught a mini-lesson on the various language tools, I found that a several students did pay attention to this minimal instruction and a few students even mentioned aspects they learned

from it within their dialogue journals. If a teacher allows or even suggests using a language tool, students should be instructed how to use it. Warschauer has even warned against the fulfillment of technology without proper instruction, which only increases the literacy divide (2002, Literacy and ICT Access, para. 1).

There are several areas that warrant further study. One area that this research revealed is the difference in correct language tool use between males and females. According to the needs assessment, further research could be conducted on the language skills between males and females and even the process by which they select words from a language tool. Another area to research would be to determine if language tool instruction by means of various activities, even those mentioned in the literature review, actually improve students' ability to correctly search and choose for words in the NL or TL. Additionally, with all the language tools available to teachers and students, research should be conducted as to which tool could or should be used for specific language tasks. This knowledge would greatly benefit teachers and assist them in identifying an appropriate tool to use for certain activities such as reading or writing.

The use of language tools in a FL classroom is a difficult decision for teachers to make and will remain to be until further, conclusive research is conducted. However, after conducting this research and knowing the difficulties students have when using language tools, my research has shown me that if I encourage the use of a language tool, as a teacher I need to instruct students on the correct use of the tool so students can develop a greater understanding of its potential, the language, and their own self-sufficiency.

Appendix A

Advantages and Disadvantages of Electronic Language Tools

Descriptions of Electronic Tools

- **CD-ROM Dictionaries (CD)** = Dictionaries which are compiled into a compact disk format. They can be monolingual, bilingual, or a learner's dictionary. Examples include: *Collins Talking Dictionary* by Intense Language Office ASIN**:** B0000544GX, *Collins Spanish Pro Dictionary* by LEC ASIN**:** B0007OTX3Y, SELECTSOFT USA: *Pop-up Oxford Dictionary* (available in various languages) ASIN: B00007BGTY
- **Web-based Machine Translators (WBMT)** = Computerized programs, sometimes online, that can translate words, phrases, sentences, and even entire web pages to other languages Examples include: http://translate.google.com/translate_t# , http://babelfish.yahoo.com/, http://www.freetranslation.com/
- **Online dictionaries (OD)** = Bilingual and monolingual dictionaries that are provided on the internet for many languages. Examples include: http://www.wordreference.com/, http://www.babylon.com/, http://www.freedict.com/onldict/spa.html, http://unabridged.merriam-webster.com/
- **Portable Electronic Dictionary (PED)** = Hand-held dictionaries compiled into a small electronic device with small keyboards to enable searching. Example: Franklin Merriam-Webster ((Speaking)) Spanish-English Dictionary (BES-1850)
- **Scanning pens (SCAN**) = A tool that appears to look like an enlarged pen that reads words and translates. Examples include: OCR Quickionary Pen, WizCom Inc.Franklin's Quicktionary II – Spanish (WC1265031)

Tool	Advantages	Disadvantages
Electronic Tools Overall	• Allow for fast and easy searching • More interesting to use and well-balanced for students (Loucky, 2002, p. 303) • Create more motivation and increased effort that would never exist with print dictionaries alone (Nesi, 1999, p. 64; Peters, 2007, p. 37). • More browsing, resulting in more vocabulary acquisition (Guillot & Kenning, 1994, cited in Nesi, 1999, p. 64) • Capability for multimedia, such as sound, images, and video (Winkler, 2001, p. 231) (CD, OD, PED, SCAN) • Very portable (PED, SCAN)	• Some can be more expensive than print dictionaries (Loucky, 2002, p. 305) • May break and wear out easier, and they require a power source (Loucky, 2002, p. 305) • May require extensive high-powered hardware to function (Nesi, 1999, p. 56) • User is computer dependent (CD, OD, WBMT) • Can be used as a marketing tool (OD, WBMT) • May not require as much processing as needed by user to increase acquisition of incidental vocabulary (Peters, 2007, p. 38). • More, different skills may be

	• Ability to copy and paste information to and from the program allows for greater speed (CD, WBMT, OD) • Variety of search routes (CD, PED) • Can hyperlink to more information or other words (CD, OD) • Can track search history (PED, OD) • Ability to print results (CD, OD, WBMT)	necessary to search within large volumes of information (Nesi, 1999, p. 55; Tomaszczyk, 1983, cited in East, 2008, p. 17) • Some may not be as comprehensive as the printed forms (Loucky, 2002, p. 305) •
CD (Nesi, 1999; Winkler, 2001)	• More accepted by lexicographers and academic reviewers • May contain corpus examples, interactive exercises and games • Information categorized in various ways allowing for various ways of searching • Picture galleries • Ability to record and playback pronunciations to compare to audio • More space is available for grammar and usage information • Some supply user with all information that pertains to initial word • Ability to use simultaneously with other applications on computer • Can link to the Internet • Ability to link definition of words from a web page	• Some may only run if CD is in drive • Some require great amount of hard disk space to run • May require audio and video capabilities to fully function • User must possess certain skills to utilize the dictionary tool and perform more complex searches
WBMT (Williams, 2006; McCarthy, 2004)	• Can be used as a teaching tool to demonstrate to foreign language students ineffectiveness of free online translations • As an educational teaching tool, students can strengthen their electronic literacy skills	• Inaccurate translations ranging from prepositions, verbs and verb phrases, nouns, etc. • Often misused by students • Form of academic dishonesty if incorrectly by students • Can serve as a marketing tool • Does not give the user other possible meanings of words or phrases, thereby creating a 1:1 correspondence

OD (Loucky, 2005; Nesi, 1999; Peters, 2007)	• Available in many languages • Some may give examples of words in use	• Some may require downloading to personal computer • Easily confused with translators • May supply limited examples or word options • May have to purchase in order to access online
PED (Loucky, 2002; Nesi, 1999; Peters, 2007)	• Can be expanded and linked to other applications such as printers and computers • Database may contain extra information of synonyms, antonyms, and etymology information • May be used in combination with a personal organizer • Becoming more popular because of compact size, convenience and more affordable prices • Capabilities of downloading e-books and e-news from the internet • Designed for certain levels of language learner and can focus on various locations of where a language is spoken	• Look up routes is more limited compared to electronic dictionaries on disks • Software used to create the device may be newer than the lexicographical information • Less accepted by lexicographers • Less detailed information than print dictionary form • Limited definitions and few examples • Limited grammatical information • Some models may lack extensions containing extra cultural information or words in authentic contexts
SCAN (Loucky, 2002)	• Typing of word not required, eliminating human error • Highly preferred by research sample of students	• Expensive • Very new tool, and little known of its use and effectiveness as a resource and learning tool

Appendix B

Examples of Translations

These examples of translations are based on the article by Williams (2006). The first column contains the item entered into the translator. The other columns contain the results of the translation using specific web-based machine translators (WBMTs). The bolded words indicate a difference in translations or an incorrect translation. This document could also be helpful to teach student to not rely on translations (McCarthy, 2004, Translation Traps, para, 2).

AV = AltaVista-Babel Fish Translation
GT = Google Translation
FT = Free Translation

English Word	AV	GT	FT
To	A	Para	A
From	de	desde	de
I am from the Dominican Republic	Soy de la República Dominicana	Soy de la República Dominicana	Soy de la República Dominicana
The scientific community, unhappy with the situation, decided to act. (adjacent adjective)	La comunidad científica, **infeliz** con la situación, **decidida para** actuar.	La comunidad científica, **descontent*os*** con la situación, decidió actuar.	La comunidad científica, infeliz con la situación, decidió actuar.
Unhappy with the situation, the scientific community decided to act. (Remote adjective)	Infeliz con la situación, la comunidad científica decid**ía** actuar.	Descontent**o** con la situación, la comunidad científica decid**ió** a actuar.	Infeliz con la situación, la comunidad científica decidió actuar.
The big red dog ate his food.	El **perro rojo grande** comió su **alimento**.	El **gran perro rojo** comió su **comida**.	El **perro rojo grande** comió su **alimento**.
The planet is small. (mistaken gender of noun w/ adj. agreement)	El planeta es pequeño.	El planeta es pequeño.	El planeta es pequeño.
He is older than you.	Él es más **viejo** que usted.	Él **tiene más** de usted.	**E**l es más **viejo** que usted.
He is my old friend. (what about "former as old!?)	Él es mi viejo amigo.	Él es mi viejo amigo.	El es mi amigo viejo.
I prefer my old (former) job	Prefiero mi **viejo** trabajo.	Yo prefiero mi **antiguo** trabajo.	Prefiero mi **antiguo empleo**.
I prefer my former	Prefiero mi trabajo	Yo prefiero mi	Prefiero mi trabajo

job.	anterior.	antiguo trabajo.	anterior.
I play football.	Juego al balompié.	I jugar al fútbol.	Juego al fútbol.
I play soccer.	Juego **a** fútbol.	Yo **hago el papel** de fútbol.	Juego **al** fútbol.
We play softball.	Jugamos a b**eís**bol con pelota blanda.	**Estamos jugar** softbol.	Jugamos el b**éis**bol.
I play the guitar.	Toco la guitarra.	Yo toco la guitarra.	**Juego** la guitarra.
I play the drums.	**Juego** los **tambores**.	Yo toco la batería.	Toco la batería.
I have written a book.	He escrito un libro.	He escrito un libro.	He escrito un libro.
I had arrived when my mother left.	Había llegado cuando mi madre se fue.	Me habían llegado cuando mi madre la izquierda.	Había llegado cuando mi madre dejó.
We saw our neighbor three hours ago.	Vimos hace nuestras tres horas vecinas.	Vimos a nuestro prójimo tres horas.	Vimos a nuestro vecino hace tres horas.
We saw our neighbor**s** three hours ago.	Vimos a nuestros vecinos hace tres horas.	Hemos visto a nuestros vecinos tres horas.	Vimos a nuestros vecinos hace tres horas.
I know him.	Le conozco.	Sé que él.	Yo lo conozco.
I know Michael.	Conozco a Michael.	Sé que Michael.	Sé Michael.
She wakes up everyday.	Ella despierta diario.	Ella se despierta todos los días.	Ella se despierta diario.
She wakes up the children.	Ella despierta a los niños.	Ella se despierta a los niños.	Ella se despierta a los niños.
She wakes the children up.	Ella se despierta a los niños.	Ella se despierta a los niños.	Ella despierta a los niños **arriba**.
He drove to the store.	Él condujo al almacén.	Él llevó a la tienda.	El condujo a la tienda.
Drive	impulsión	conducir	Conduzca
My neighbor is an intelligent girl. (Gender of noun not in agreement)	Mi **vecino** es una muchacha inteligente.	Mi **prójimo** es una chica inteligente.	Mi **vecino** es una chica inteligente.
She turned up the volume.	Ella dio vuelta encima del	Ella se presentó el volumen.	Ella apareció el volumen.

	volumen.		

Google translation has an option that says, “We'll use your suggestion to improve translation quality in future updates to our system.” This is similar to wikipedia in the fact that you can go in and change the translation of text to something else.

Appendix C

Procedural Documents

This Appendix contains originals of the documents used to carry out and gather data for this research project conducted at Colonial Forge High School in Stafford County, Virginia, from January to April, 2009. The documents include, in order of appearance:

All of these documents are originals and have not been changed. The needs assessment was prepared and conducted online via Survey Monkey. The Observation Rubric was created from ideas based on examples given by Richards (1990). Dialogue journals were created in order to elicit specific student perceptions.

Needs Assessment Survey Instrument

1. Default Section

*** 1. How old are you?**

- ◯ 14
- ◯ 15
- ◯ 16
- ◯ 17
- ◯ 18

*** 2. What is your grade level in high school?**

- ◯ 9
- ◯ 10
- ◯ 11
- ◯ 12

*** 3. What is your gender?**

- ◯ Male
- ◯ Female

*** 4. Describe the technology situation where you live.**

- ◯ There are multiple personal computers available with high-speed internet.
- ◯ There is one personal computer with high-speed Internet.
- ◯ There are personal computers with high-speed Internet, but my parents/guardians restrict how often I can use them OR websites I can visit.
- ◯ There are multiple personal computers with dial-up Internet.
- ◯ There is one personal computer with dial-up Internet.
- ◯ There is one personal computer with dial-up Internet, but my parents/guardians restrict how often I can use them OR websites I can visit.
- ◯ There are no personal computers where I live.
- ◯ I am not sure of the technology situation where I live.
- ◯ None of the above describe my technology situation.

*** 5. How many years before this current school year have you studied Spanish? (If you had to repeat a level, include that year in your total.)**

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5
- ◯ 6 or more years

*** 6. What is the first language you learned to speak?**

7. If you have studied or learned other languages besides Spanish, which are they?

1.
2.
3.
4.

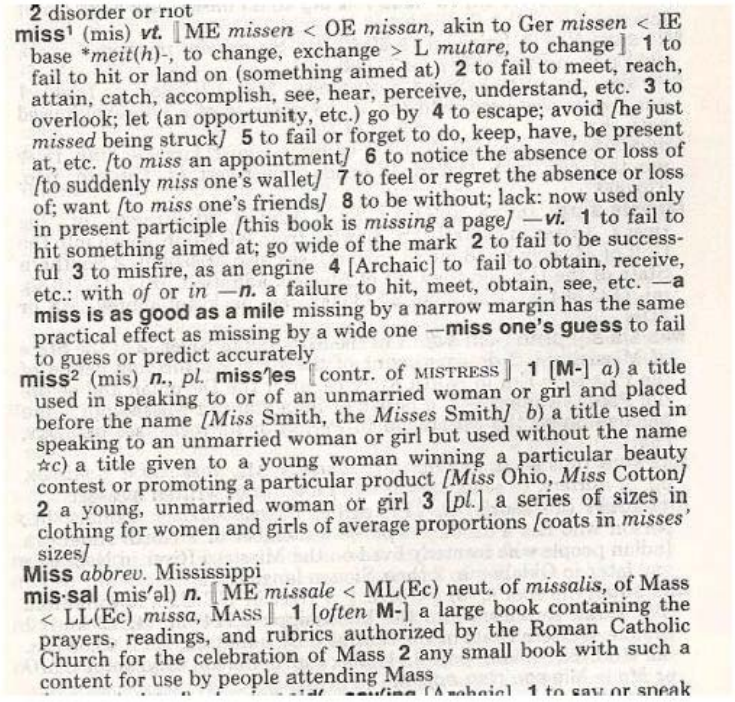
8. Have you ever needed to use any type of dictionary in any of your current classes besides Spanish? If so, please name those classes.

1.
2.
3.
4.
5.
6.

*** 9. Have you ever used an online dictionary to assist you with your native language?**

- ◯ Yes
- ◯ No
- ◯ I don't know.

The following is an excerpt from a monolingual English dictionary. Use the image to answer the question below the graphic.



2 disorder or riot
miss[1] (mis) ***vt.*** ⟦ME *missen* < OE *missan*, akin to Ger *missen* < IE base **meit(h)-*, to change, exchange > L *mutare*, to change⟧ **1** to fail to hit or land on (something aimed at) **2** to fail to meet, reach, attain, catch, accomplish, see, hear, perceive, understand, etc. **3** to overlook; let (an opportunity, etc.) go by **4** to escape; avoid *[he just missed* being struck*]* **5** to fail or forget to do, keep, have, be present at, etc. *[to miss* an appointment*]* **6** to notice the absence or loss of *[to suddenly miss* one's wallet*]* **7** to feel or regret the absence or loss of; want *[to miss* one's friends*]* **8** to be without; lack: now used only in present participle *[this book is missing* a page*]* —***vi.*** **1** to fail to hit something aimed at; go wide of the mark **2** to fail to be successful **3** to misfire, as an engine **4** [Archaic] to fail to obtain, receive, etc.: with *of* or *in* —***n.*** a failure to hit, meet, obtain, see, etc. —**a miss is as good as a mile** missing by a narrow margin has the same practical effect as missing by a wide one —**miss one's guess** to fail to guess or predict accurately
miss[2] (mis) ***n.***, *pl.* **miss'es** ⟦contr. of MISTRESS⟧ **1** [**M-**] *a)* a title used in speaking to or of an unmarried woman or girl and placed before the name *[Miss* Smith, the *Misses* Smith*]* *b)* a title used in speaking to an unmarried woman or girl but used without the name ☆*c)* a title given to a young woman winning a particular beauty contest or promoting a particular product *[Miss* Ohio, *Miss* Cotton*]* **2** a young, unmarried woman or girl **3** [*pl.*] a series of sizes in clothing for women and girls of average proportions *[coats in misses'* sizes*]*
Miss *abbrev.* Mississippi
mis·sal (mis'əl) ***n.*** ⟦ME *missale* < ML(Ec) neut. of *missalis*, of Mass < LL(Ec) *missa*, MASS⟧ **1** [*often* **M-**] a large book containing the prayers, readings, and rubrics authorized by the Roman Catholic Church for the celebration of Mass **2** any small book with such a content for use by people attending Mass

* 10. With help of the graphic above, type the one correct meaning of the word <<miss>> in the following sentence.

The baseball player only struck out once; but when he struck out, it was a huge miss.

* 11. Has a teacher ever taught you how to use an English-only (monolingual) dictionary?

- ◯ Yes
- ◯ No
- ◯ Maybe

* **12. Has a teacher ever taught you how to use a bilingual dictionary?**

- ◯ Yes
- ◯ No
- ◯ Maybe

*** 13. Which of the following have you ever used to help you with Spanish? (Check all that apply.)**

- ☐ Monolingual Spanish paper dictionary (dictionary ONLY in Spanish)
- ☐ Bilingual Spanish/English - English/Spanish paper dictionary
- ☐ CD-ROM monolingual Spanish only dictionary, computer-based
- ☐ CD-ROM bilingual Spanish/English - English/Spanish computer-based dictionary
- ☐ Hand-held electronic bilingual dictionary
- ☐ Bilingual or translating scanner pens
- ☐ Bilingual online dictionary (pay for access)
- ☐ Bilingual/multilingual free online dictionary
- ☐ Free online translator (such as Google or Babelfish)
- ☐ I have never used any of these to help me with Spanish.

*** 14. Of the following tools, how often do you use them to help you with Spanish?**

	Always	Occasionally	Very little	Never (I do not know what this tool is.)
Monolingual Spanish paper dictionary (dictionary ONLY in Spanish)	◯	◯	◯	◯
Bilingual Spanish/English - English/Spanish paper dictionary	◯	◯	◯	◯
CD-ROM monolingual Spanish only dictionary, computer-based	◯	◯	◯	◯
CD-ROM bilingual Spanish/English - English/Spanish computer-based dictionary	◯	◯	◯	◯
Hand-held electronic bilingual dictionary	◯	◯	◯	◯
Bilingual or translating scanner pens	◯	◯	◯	◯
Bilingual online dictionary (pay for access)	◯	◯	◯	◯
Bilingual/multilingual free online dictionary	◯	◯	◯	◯
Free online translator (such as Google or Babelfish)	◯	◯	◯	◯

*** 15. You are writing a Spanish paragraph about the weather yesterday and you want to say that <<It drizzled yesterday for two hours>>, but you do not know the Spanish word for <<drizzled>>. You find <<drizzle>> in the bilingual dictionary, but there are three words listed. Which one would you choose for your sentence?**

- ◯ n llovizna f
- ◯ garúa f Amér
- ◯ v impers lloviznar

Use the following information found on www.wordreference.com to answer the **question below the graphic.**

For the verb: "to grind"
Simple Past: ground
Past Participle: ground

New Pocket Oxford Spanish Dictionary © 2005 Oxford University Press:

grind[1] /graɪnd/ (*past & past p* **ground**) *verbo transitivo* ‹*coffee/wheat*› moler[(conj.⇒)]; (*in mortar*) machacar[(conj.⇒)]; ‹*meat*› (*AmE*) moler[(conj.⇒)] *or* (Esp, RPl) picar[(conj.⇒)]; ‹*crystals/ore*› triturar;
he ~s his teeth in his sleep le rechinan los dientes cuando duerme
verbo intransitivo (*move with friction*) rechinar, chirriar[(conj.⇒)];
to ~ to a halt *o* **standstill** [*vehicle*] pararse *or* detenerse[(conj.⇒)] con un chirrido; [*negotiations*] llegar[(conj.⇒)] a un punto muerto

grind[2] *sustantivo*
a. (*drudgery*) (*colloq*) (*no pl*): **the daily ~** el monótono trajín diario
b. (*over-conscientious worker*) (*AmE colloq*): **she's the office ~** es la niña aplicada de la oficina (iró)

grind:
grindstone /'graɪnstəʊn/, /'graɪndstəʊn /||/'graɪndstəʊn/ *sustantivo*
muela *f*, piedra *f* de afilar;
back to the ~! ¡de vuelta al yugo!

New Pocket Oxford Spanish Dictionary © 2005 Oxford University Press:

ground[1] /graʊnd/ *sustantivo*
1. *uncountable* (*land, terrain*) terreno *m*;
to gain/lose ~ ganar/perder[(conj.⇒)] terreno;
to stand one's ~ (*in argument*) mantenerse[(conj.⇒)] firme; (*in battle*) no ceder terreno
2. **grounds** *pl* (*premises*) terreno *m*; (*gardens*) jardines *mpl*
3. *uncountable* (*surface of the earth*) suelo *m*;

* 17. Use the image above to answer this question.
A student needs to write this sentence in Spanish:
<<First, Maria ground the coffee.>>
In the box below, type the word(s) that the student should use for the word **<<ground>>.**

Type "NOT SHOWN" if you believe the correct word is not shown in the selection.

Use this graphic to answer the question below.

elect [ɪ'lekt] ◇ *adj* electo(ta); **the president** ~ el presidente electo. ◇ *npl*: **the** ~ RELIG los elegidos. ◇ *vt* **- 1.** [by voting] elegir; **to** ~ **sb (as) sthg** elegir a alguien (como) algo. **- 2.** *fml* [choose]: **to** ~ **to do sthg** optar por OR decidir hacer algo.

elected [ɪ'lektɪd] *adj* elegido(da).

election [ɪ'lekʃn] ◇ *n* elección *f*; **to have** OR **hold an** ~ celebrar elecciones. ◇ *comp* **- 1.** [day, results] de las elecciones. **- 2.** [agent, period, speech] electoral; ~ **campaign** campaña *f* electoral.

* **18. Use the dictionary selection above to answer this question.**
In the following English sentence <<We elected Jaime as our President.>> which **Spanish word should be used for <<elected>> in the sentence?**

- ◯ electo
- ◯ electa
- ◯ el presidente electo
- ◯ la presidente electa
- ◯ elegir
- ◯ elegimos
- ◯ optar
- ◯ optamos
- ◯ elegido
- ◯ elegida
- ◯ elección
- ◯ word not shown in dictionary entry

Use this image again to answer question the question below.

elect [ɪ'lekt] ◇ *adj* electo(ta); **the president** ~ el presidente electo. ◇ *npl*: **the** ~ RELIG los elegidos. ◇ *vt* **- 1.** [by voting] elegir; **to** ~ **sb (as) sthg** elegir a alguien (como) algo. **- 2.** *fml* [choose]: **to** ~ **to do sthg** optar por OR decidir hacer algo.

elected [ɪ'lektɪd] *adj* elegido(da).

election [ɪ'lekʃn] ◇ *n* elección *f*; **to have** OR **hold an** ~ celebrar elecciones. ◇ *comp* **- 1.** [day, results] de las elecciones. **- 2.** [agent, period, speech] electoral; ~ **campaign** campaña *f* electoral.

*** 19. What information is given about the Spanish translation for the word <<election>>? (check all that apply)**

- [ ] English pronunciation
- [ ] Spanish pronunciation
- [ ] part of speech
- [ ] gender
- [ ] verb conjugation
- [ ] verb conjugation reference
- [ ] geographic location where word is used
- [ ] examples of the word being used
- [ ] different variations of the word <<elección>>
- [ ] none of the above

Observation Rubric

Observation of Language Tool Use

Need	**Search**	**Evaluation of Word**
Using it? P MW G	Inability to find word	Trouble with abbreviations, register, wording
Not using it?	Correctly located word	Needs help choosing correct word
	Other difficulties in search	Chose incorrect word
		Chose correct word

Dialogue Journal 1

1. In your opinion, how often did you use each tool?

   Very frequently (20+ times)
   Frequently (15-20 times)
   Occasionally (5-15 times)
   Rarely (1-5 times)
   Never (0 times)

   Bilingual printed dictionary: _____
   Online Merriam-Webster Dictionary: _____
   Online Google Translator: _____

2. If there was one language tool you used more than others, what did you like about that tool? Why did you choose it? Give specific examples.

3. If there was one language tool you used less than others, what did you dislike about that tool? Why did you NOT choose to use it? Give specific examples.

4. If there was one tool you used most often, what did you dislike about it? Give specific examples.

Dialogue Journal 2

1. In your opinion, how often did you use each tool?

   Very frequently (20+ times)
   Frequently (15-20 times)
   Occasionally (5-15 times)
   Rarely (1-5 times)
   Never (0 times)

   Bilingual printed dictionary: _____
   Online Merriam-Webster Dictionary: _____
   Online Google Translator: _____
   OTHER (name): _____

2. Language tools can be used for many reasons. If you used a language tool, for which of the following reasons did you use it YESTERDAY? Check all that apply.

_____ check/determine spelling
_____ determine / check part of speech
_____ determine / check meaning while reading
_____ determine / check meaning while writing
_____ determine / check conjugation of verbs
_____ determine / check usage (how it is used, where it is used)
_____ translation of a phrase, sentence, or multiple sentences
_____ other: _____

3. Which tool listed above do you think is:
   the fastest to use? _____
   the most difficult to use? _____
   the easiest to use? _____
   the most accurate? _____
   better for help when writing? _____
   better for help when reading? _____
   best for learning Spanish? _____

4. Explain a situation in which you used a language tool with specific examples and words you might have searched for. Describe the steps you took to find/locate a word. Did you use more than one tool?

5. Once you found the word you were looking for, did you ever have problems deciding which word to choose or if it was correct? If so, explain the situation or word for which you were searching.

Dialogue Journal 3

1. Do you feel that the Caribbean project has helped you gain more experience using different language tools? Why or why not?

2. Do you feel that you need practice or help in using any of the three language tools? Why or why not?

3. Do you think teachers should have students complete more activities using different language tools? Why or why not?

Appendix D

Lesson-Related Materials

This Appendix contains originals of the documents created for the instruction of students and a screen capture of the class website utilized to carry out the student lesson. The lesson was designed with the following Virginia Spanish standards in mind: engagement in original and spontaneous oral and written communications (SIII.1), comprehension of spoken and written Spanish presented through a variety of media and based on new topics in familiar and unfamiliar contexts (SIII.3), and the use of Spanish to reinforce and broaden knowledge of connections between Spanish and other subject areas (SIII.7). Spanish 3 students were involved in this lesson at Colonial Forge High School in Stafford County, Virginia, from early February to early March, 2009. The documents include, in order of appearance:

All of these documents are originals and have not been changed. The Student Project Assignment was based off of Oxford Brookes University's module titled "Key Academic Skills for International Students" (Nesi & Haill, 2002, p. 278). The mini-lesson was very brief and giving students practice only using BPD and visual examples of MW and GT tools. The screen capture of the website tool is a tool that is used school-wide by all faculty members. It grants students the ability to access each all of their assignments in each class as well as the ability to upload documents to their own user profile and teacher-created assignments.

Student Project Assignment

¿Qué pasa en el Caribe?

What's going on in the Caribbean? We will be going to the library to use and read various current news websites from Puerto Rico, Cuba, and the Dominican Republic.

Requirements:

You will need to write 3 summaries about 3 different articles that you read.
You must read 1 article from each of the 3 countries' news sites.
You can only choose articles from the websites I provide on my fusion page..
You **cannot** choose an article that primarily discusses activities in the United States.
The article that you choose must be at least 4 paragraphs long.
For each summary, you need to use at least 5 new words that you did not know before. (See below how to integrate the new words)

To help you write a summary, answer the following questions:

El título:
Escrito por:
La fecha:
El tema principal (en tu opinion - ¿Cómo llegaste a esta conclusion?):
¿Por qué elegiste este artículo? – Sea honesto(a)
En tu opinión, ¿Cuáles son unos detalles importantes en el artículo? Usen tus propias palabras.
¿Hay unos aspectos que no comprendes del artículo? ¿Cuáles son unas palabras / oraciones que no comprendes bien?
¿Qué aprendiste de este artículo que no sabías antes?

Format

1- All 3 summaries must be in 1 document, with 1" margins on all sides. (See "Page Setup" under "File")
2- Name/save the document with **your last name**, period number, and then "resumenes" ex/ lastname2resumenes
3- Double space the document, except for the title/link (Format, paragraph, line spacing "double")
4- Create a header on the document (View, Header & Footer) with your last name and insert page numbers.
5- Center and bold the title of each summary before each summary and which country's news you accessed:
6- Provide the link to the article that you read under the title**.**
7- For the 5 new words in each summary, make them **bold** and number them like this **(1)**. At the end of the summary, list the words in order and the definition that you are using it as in your summary with the part of speech you believe it is.
8- Proofread for the following

Capitalization
Punctuation
Misspellings (accents)
Indentation of paragraphs
IN SPANISH!

9- After completing all 3 summaries, you will upload your final document to the schoolfusion assignment I will create. I will give you direction on how to do this. If you need to work on this at home, you may also consider uploading the document to your own schoolfusion if you do not have a USB thumb/flash drive.

Your grade will be based on the following:

Completion of 3 summaries of 3 different Caribbean countries	15 pts.
Correct Formatting (see above)	10 pts.
Detailed summary, in own words -topic & concluding sentence -your opinions / what you learned -main theme (why?) -important details (why?)	20 pts.
At least 5 bolded words within each Summary and defined at the end	15 pts.
Mechanics (spelling, capitalization, punctuation, etc.)	10 pts.
TOTAL:	70 pts.

Un reseumen de "Los Leones se quedan sin Feliciano y Matos" –de Puerto Rico
http://www.elnuevodia.com/diario/noticia/beisbol/deportes/los_leones_se_quedan_sin_feliciano_y_matos/524060

Leí el artículo "Los Leones se quendan sin Feliciano y Matos" que fue escrito por La Prensa Asociada.el 27 de enero, 2009. Yo creo que este artículo nos da información sobre dos personas que no pueden jugar al béisbol con su equipo. Pienso esto porque las dos personas que no pueden jugar con el equipo son Feliciano y Matos, como se dice en el título. Supongo que el artículo refiere al deporte de béisbol porque el autor se menciona la palabra **lanzador (1)**, una posición necesaria en el deporte de béisbol. También, se dice que las personas no **acompañarán (2)** su equipo a la Serie del Caribe. En béisbol, un grupo de partidos se llaman *serie.* Aprendí que el Caribe tiene una serie de béisbol como la de los Estados Unidos. Unos detalles muy importantes son las rezones que los jugadores no juegan con el equipo. Por ejemplo, Feliciano no jugará porque está **pendiente (3)** una decisión de la **Liga (4)** Nacional con los Mets. Matos no jugará porque quiere **conseguir (5)** un contrato para regresar a las grandes ligas. Según el artículo, los dos jugadores son muy buenos para el béisbol.

(1) n. pitcher

(2) v. will accomany

(3) adj. waiting for

(4) n. league

(5) v. to get/obtain

Mini-Lesson on Various Tools

Class:	Can use for Spanish levels 1-3
Time for lesson:	25 minutes
Virginia Spanish 3 Standards:	SIII.9 - The student will strengthen knowledge of the English language through study and analysis of increasingly complex elements of the Spanish language. 1. Demonstrate understanding that language and meaning do not transfer directly from one language to another. 2. Demonstrate understanding that vocabulary, linguistic structures, and tense usage in English may differ from those of Spanish.
Materials:	Chalkboard or Whiteboard Laptop with Internet Connection Access to an online bilingual dictionary such as Merriam-Webster Unabridged Dictionary Access to a free online translator such as Google Translator LCD Projector connected to laptop Screen for projection 18 Bilingual Print Dictionaries to share in pairs (or at least half the amount of students in the class)
Objectives:	Students will utilize Bilingual Print Dictionaries to answer questions that teacher initiates. Students will compare the information found in BPD to information given in two other language tools projected in front of them.

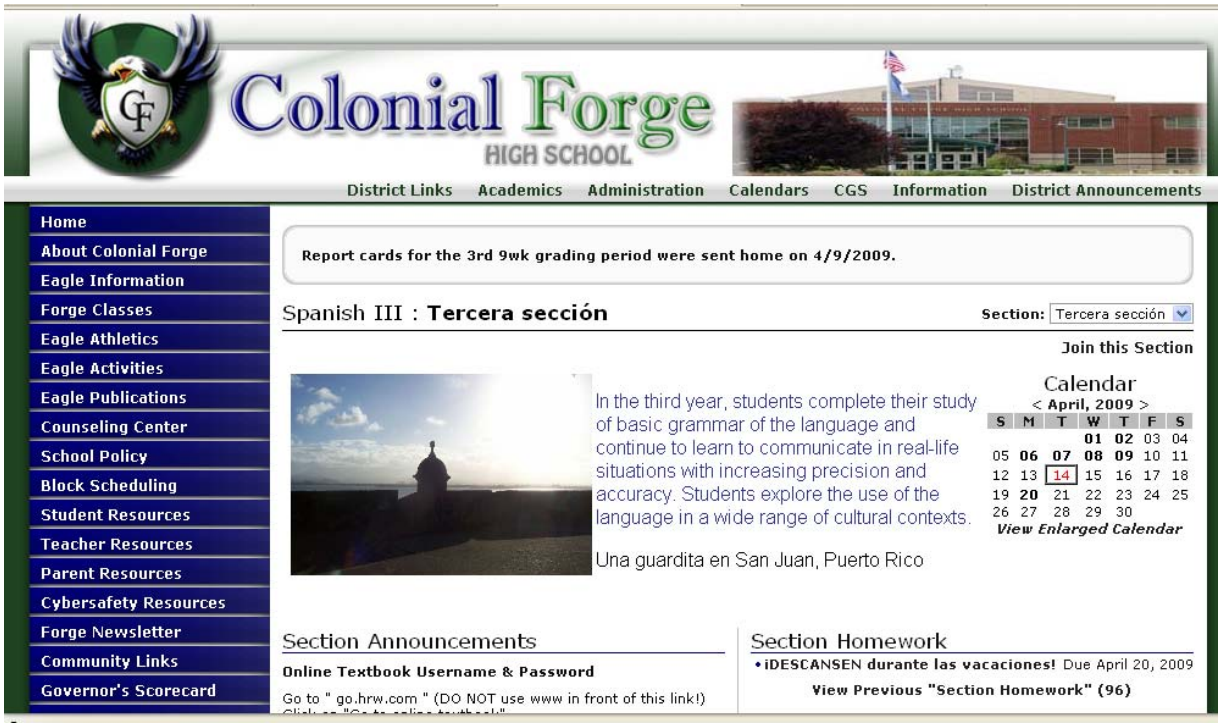
Lesson Procedure:

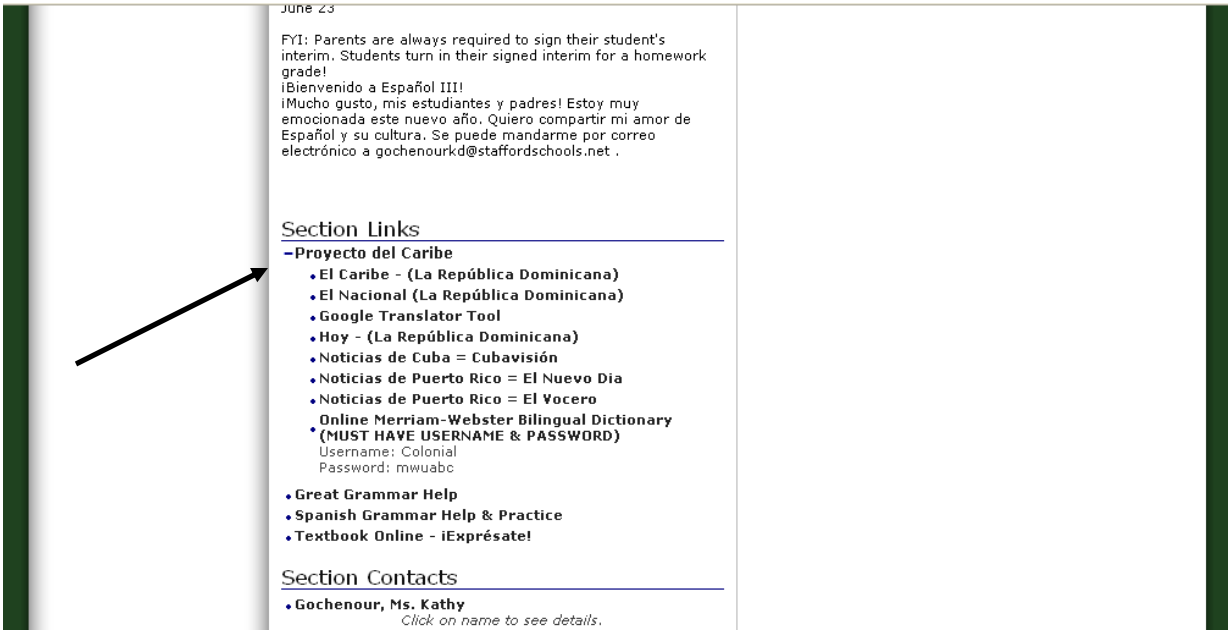
1) The teacher will list abbreviations on chalkboard used in their bilingual print dictionaries and then ask students what they think the abbreviations represent.
2) For all the abbreviations that were unknown by the students, the teacher will ask students to go to the front of the bilingual print dictionary to determine the meaning of each abbreviation. The teacher will assist students in understanding the definition of such abbreviations.
3) The teacher will then write the word *play* on the board to compare with different language tools.
4) The teacher asks the students to search for the English word *play* and determine which Spanish word they would choose for *a drama performance*.
5) The teacher will then ask students which Spanish word they would choose for *to play a sport or game*. Upon the selection of this word, the teacher will ask students what the number within the brackets means. Students should give their guesses. The teacher should then show the reference location of the number of a corresponding verb at the end of the

dictionary to show that some bilingual dictionaries can help with determining verb conjugations.

6) Then, the teacher will utilize the online bilingual dictionary and show students how to access it as well as search for the same word, *play*.
7) Students will verbally compare how the bilingual print dictionary and online bilingual dictionaries are different and similar by looking at the projection on the screen. If unrecognized by students, the teacher should point out that the different parts of speech are listed on the left side of the screen and must be selected to see the Spanish definition. Also, the teacher should also point out that there are hyperlinked numbers for references of verb conjugations just as the bilingual print dictionary gave the user, although the print dictionary requires the user to search in the back of the book.
8) The teacher will then change the online page so students can compare the similarities and differences for the word *play* using the free online translator. The teacher should again ask students how the product of the translator compares to the bilingual print and online dictionaries.
9) Steps 4-8 can be repeated with other polysemous words such as *ground*, *show*, and *lead*, time permitting.
10) Close the lesson with an exit slip asking all students to write in English two differences or similarities in language tools that they discovered throughout the lesson.

Screen Capture of Class Website





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