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## Vocabulary Needs for the General Education Curriculum at a Four-Year University in the U.S.

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Vocabulary Needs  
for the General Education Curriculum  
at a Four-Year University in the U.S.

A Thesis Presented to  
The Graduate Faculty of  
Minnesota State University Moorhead

By

Esraa Kadhem

In Partial Fulfillment of the Requirements for the Degree of  
Master of Arts in  
Teaching English as a Second Language

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### **Dedication**

This thesis is dedicated to my father, Mohammed Salim, who set a great example for me and taught me the value of hard work, resilience, and education.

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### **Abstract**

The purpose of this study sought to find out the key terms and concepts needed for international students to succeed in the general education courses in a four-year university in the United States. This study analyzed existing enrollment data across three academic year (2014-2015, 2015-2016, and 2016-2017) to learn which general education course is most frequently taken by international students. One course in each LASC area was identified as the top one from the most frequent taken courses by international students. After identifying the top ten courses, answers on vocabulary needs were obtained by conducting semi-structured interviews with permanent faculty members at Minnesota State University Moorhead (MSUM) who teach these top ten general education courses. The findings show that international and NNSE students do not need any specific content terminology or concepts learning before taking general education courses, rather they need a basic level of vocabulary and English proficiency in order to achieve their academic goals in higher education.

## **Chapter One: Introduction**

“Vocabulary words are the building blocks of the internal learning structure. Vocabulary is also the tool to better define a problem, seek more accurate solutions, etc.” Ruby K. Payne (Goodreads, 2011).

International students and non-native speakers of English (NNSEs) face many obstacles, limitations, and difficulties as they go through their years of higher education in a classroom where English is the medium of instruction (EMI). Many of these students find themselves in an EMI classroom setting for the first time. Even if they have been taught English as a foreign language in their countries, this does not necessarily mean that they mastered it as their native-speaker peers. These students may not have the skills at the English proficiency level that is needed in their EMI academic courses, including writing and reading skills. Therefore, international and NNSEs student have a variety of academic weaknesses, including deficient oral and written communication skills. Some of these weaknesses are a direct reflection of students’ limited vocabularies (Willingham & Price, 2009).

There are different areas in which international students and NNSEs are struggling when it comes to be in EMI classroom setting, and one of the areas that is specifically concerning is lack of vocabulary. In fact, the Lexical Approach, which is an approach to teach language, claims that “the building blocks of language learning and communication are not grammar, function, notions, or some other unit of planning and

teaching but lexis, that is, word and word combinations” (Richards and Rodgers, 2001, p. 132).

Despite all of the struggles that NNSEs face while attending college or universities in the United States to obtain their higher education, the United States remains the country of choice for a lot of international students, hosting about 1.1 million of the 4.6 million enrolled worldwide in 2017 (Zong, & Batalova, 2018).

As a non-native speaker of English who has been studying at MSUM, I have found it difficult to succeed in a course without understanding the essential terms and words related to specific subject areas, such as math. Even when I had the necessary prior knowledge for that math course, lacking the specific terms and vocabulary knowledge in English related to the math course, made the material difficult to comprehend, which affected my success in the course. This made me realize that learning the content area vocabulary at the same time as acquiring the knowledge in the general educational courses is an obstacle for non-native English speaker students. If this is true for all non-native English speakers, what vocabulary NNSEs should learn before attending the general courses in order to succeed in their education in an EMI setting?

### **Definition of Terms**

For the purposes of this study, the following terms are defined as:

**Academic Words:** Words that are used in academic texts across multiple disciplines and are not high frequency or specialized words (Nation, 2001).

**High-Frequency Words:** Words that are used very frequently in the English language (Nation, 2001).

Idioms: “Are a multi-word unit where the meaning of the whole unit is not clear from the meaning of its parts.” (Grant & Nation, 2006, p. 1)

Lexicon: The vocabulary of a particular language, field, social class, and person.

Linguistic Insecurity: “The anxiety or lack of confidence experienced by speakers and writers, who believe that their use of language does not conform to the principles and practices of standard language” (Daftari & Tavit, 2017).

Specialized or Technical Words: Words that are used in texts that are specialized to a specific area of study, that are not high-frequency words or general academic words (Nation, 2001).

Word Families: A set of words consisting of a base word and all its derived and inflected forms, for example, *watch*, *watches*, *watched*, and *watching* (Nation, 2001).

### **Literature Review**

Since vocabulary knowledge is essential to language learning and communication, without enough vocabulary students might not be able to get their message across, neither can they fully comprehend a text without knowing enough vocabulary meaning. This means the more words a person knows, the better they will learn the content and understand materials. In studies related to second language learners, researchers revealed there are solid and high correlations between vocabulary knowledge and paragraph comprehension in reading materials (Matsuoka & Hirsh, 2010). Recognizing the meaning of words is important for readers since some researchers claim that fluent reading comprehension is possible only with automatic word recognition of a large vocabulary (Grabe, 2008; Matsuoka & Hirsh, 2010). Missing meaning or word understanding could lead to difficulty in comprehending the context, which might lead to obstacle on

achieving success in the general education courses. To avoid this problem, non-native speakers of English must learn general education vocabulary before taking further general educational courses. This is because in the general education courses, there is a large amount of material presented in a sixteen-week semester, and there is not enough time to spend on teaching the general academic words along with the content area knowledge at the same time (Willingham & Price, 2009). Thus, vocabulary instruction is often either removed from the curriculum or taught on a limited basis (Willingham & Price, 2009).

In English, there are about 114,000-word families, excluding proper names, identified in the largest non-historical dictionary of English (Nation, 2001). Although native speakers of English (NSEs) have acquired lexicon at very young age, they will continue increasing the number of words in their vocabulary throughout their entire life, yet they will never master all the words in their native language (Richards, 1976). Since learning all the words of English is not expected from most native speakers, then, of course, it will not be the goal for a non-native language learner. There is not an exact number of words to be known for a NSE since the number changes according to the specific purposes. However, it was estimated that the average NSE in the United States enters school with between 4,000 to 5,000-word families (Schmitt & McCarthy, 1997). For each year of their life, they add about 1,000 words to their vocabulary (Nation, 2001), which means that the average NSE entering college knows about 17,000-word families. While NSEs are in college, they acquire approximately 2,000 words each year. The total number of words NSEs acquire by graduation from college would be around 25,000 words (Nation, 1990). NNSEs need to start with half of the word number of their NSE

peers entering the college, at least, in order to succeed in their academic courses (Nation, 1990). But what happens when NNSEs enter college with less than the needed words to be academically successful? The reality is that NSE continue to learn new words while NNSEs face the double challenge of building that foundation and closing that language gap (Mukoroli, 2011). If NNSEs, such as international students, begin college with limited number of English words, then, in turn, they have many more words to learn in order to reach the same level as their NSE peers. In other words, vocabulary acquisition for academic purpose must be doubled for NNSEs to be successful in their general education courses (Li, 2016).

Linguistics draw a distinction between receptive (the knowledge needed for listening and reading), and productive (the knowledge needed for speaking and writing) vocabulary. A learner's receptive vocabulary contains those words that a learner can identify but not use. A productive vocabulary covers those words that a learner can both identify and use (Nunan, 2015). Knowing the form of word involves knowing its meaning, its spelling, its pronunciation, its grammar, its collocations and its register (Nation, 1990). These are points that an instructor should take into an account when teaching vocabulary (Nunan, 2015).

NNSE differs from NSE not only in the size of their lexicon but also the depth of semantic representation or meaning (Comesaña, Soares, Sánchez-Casas & Lima, 2012), in other words, depth of knowledge of a word meaning. This is another challenge, along with the number of vocabulary words to be acquired, which includes enhancement of semantic depth or understanding of these acquired vocabulary (Khan, 2016). Second language researchers assumed that NNSEs acquire new meaning along with acquiring

new words, (Jiang, 2004). However, lexical errors could occur when English Language Learners use second language new words based on the meaning of their native language translations (Jiang, 2004). This is true especially in the early stages of new vocabulary acquisition. As the foreign language learner or NNSEs become more proficient, connections between new word learning and the shared concept will be strengthened and the dependency on the first language and second language links will decrease (Jiang, 2004). It is well known that NNSEs are more likely to master basic level terms before intermediate level terms, intermediate level terms before advanced level terms.

### **Tiers of Vocabulary**

In English, words have different levels based on their frequency of occurrence and use in a text corpus. Researchers have shown that some words are relatively harder than others for NNSE learners to acquire. There are several factors that contribute to perceived word difficulty in the language and word frequency is one of these factors (Koirala, 2015). Word frequency can be sorted in many ways, for educational purpose researchers find it useful to divide words frequency into high, mid and low frequency words (Schmitt & Schmitt, 2014).

**The high-frequency words.** Researchers identified a group of vocabulary that occur very frequently in spoken and written text; these words are also known as Tier One. Learning these words is clearly important because they are fundamental to reading in English (Grabe, 2008). Consequently, considerable time should be spent on these words by both teacher and learners especially in their beginning stage of learning the language. Tran (2006) stated that “A group of 2,000 to 3,000 high-frequency words should be studied until they become sight words” (p. 157). The most well-known researchers who

studied word frequency are Edward Dolch and Edward Fry, who continue to be associated with lists of sight words. In the 1930s, Dolch compiled a list of 220 sight words, and included all parts of speech except nouns. Dolch did not use nouns in his list; only conjunctions, prepositions, pronouns, adverbs, adjectives and verbs (Farrell, Osenga & Hunter, 2013). In contrast, Fry developed his widely used Instant Word List in the 1950s and 1980s (Fry 1980) which consists of 1,000 words written in order of frequency. Fry's list includes most of the words from Dolch's list, nouns, and many function words which carry grammatical meaning, such as *the, a, that, and* (Broze, Blust, & Bertelsen 2016). Another researcher who studies high frequency words is Michael West, who developed a list of high frequency words known as The General Service List of English Words (GSL), containing 2,000 headwords and covering 81.8 % of running words (Schmitt & McCarthy, 1997).

If a learner of English recognizes these high frequency words, they will know a very large percentage of running words in both a spoken or written text, since the first 2,000-3,000 high frequency words comprise 79-84 % of running words that learners encounter in an informal spoken and general written text (Schmitt & McCarthy, 1997). Yet, this falls short of the 95 % of words needing to be recognized in order to read successfully without assistance (Laufer & Ravenhorst-Kalovski 2010). This percentage falls even shorter for Hsueh-cha & Nation's study (2000), which concluded that 98 % coverage of running words is necessary to gain an adequate comprehension. This results in a reader needing more than the frequency word list to comprehend textbooks that are required in academic settings.



**The mid-frequency words.** These words are crucial for academic studies in English words which include academic words, and specialized and technical words. The academic words which are the words that are not on the first 2,000 most frequently occurring words of English represented by Fry Instant Word List, Dolch 100 List and West's GSL. Academic words are also known as Tier Two. They are identified as words frequently found in academic texts, and they are used less frequently in other types of texts such as fiction texts. However, the words are not specially connected with any subject. These words are typically abstract and tightly full of meaning (Townsend, & Kiernan, 2015), which can easily pose comprehension difficulties, especially for struggling readers and English learners when operating in English across a range of different topics and situations.

It has been shown that the Academic Word List (AWL) includes 570-word families that contain a specialized vocabulary with good coverage of academic texts, regardless of the subject area. It covers approximately 10 % of vocabulary in academic textbooks taken from different fields (Coxhead, 2011). The list was selected from a corpus of 3.5 million running words of written texts (Coxhead, 2000). The new version of AWL known as The New Academic Word List (NAWL) which is a "list of 963 words derived from an academic corpus containing about 288 million words" (Brown, Culligan, & Phillips, n.d). Words in this tier are powerful because they can be useful across multiple content areas (Mcglynn & Kozlowski, 2017). Therefore, in order to gain knowledge and comprehension through independent reading for academic, NNSEs must master the complex and abstract words characterized as academic language because they are essential for reading comprehension and overall academic success.

The specialized and technical words are known as Tier Three. Words in this tier include words usually beyond the first 2,000 frequency level words that are represented by West's GSL or in the AWL presented by Coxhead. Specialized and technical words are common in topic areas but not common elsewhere, and they differ from subject area to subject area. Specialized and technical words make up 5% of running words in a text (Nation, 2001). Still, they are essential to the comprehension of specific content areas of study. Unknown technical words are usually hard to ignore, look up, or guess from a context, because they are connected to the topic being discussed (Nation, 1990).

Specialized and technical vocabulary instructions are usually considered to be the subject's faculty members' responsibility rather than English faculty members'. However, considering that a large number of vocabulary occurs in specialized text and a large amount of material is presented in a one-term semester; subject faculty members often remove direct vocabulary instruction from their curriculum or teach them on a limited basis (Willingham & Price, 2009). This occurs not only because of the limited time available, but also because faculty members expect students to have the necessary vocabulary and other linguistic skills to obtain the knowledge in the specialized courses (Evans, Anderson, & Eggington, 2015).

NNSEs who have been educated in their first language have the content knowledge background, but they do not necessarily have the second language vocabulary to show their content knowledge in EMI setting. Therefore, NNSEs would benefit from further language development and vocabulary instruction in advance of taking the specialized courses. The TESOL International Association (2012) indicates this in the following statement:

To enter specific academic and professional discourse communities such as business, humanities and the arts, science, engineering, and medicine, NNSE students require additional knowledge and expertise in content, specialized vocabulary, and other linguistic skills. Thus, learning the specialized vocabulary is necessary and worth learning because learning these words is part of learning the subject.

**The low-frequency words.** In addition, there is another tier of vocabulary which is known as low-frequency words. This group makes up five percent of running words in an academic text: “They include all the other words that are not included in high-frequency words, academic words, or technical words for specific subjects” (Nation, 2001, p.12). NNSEs might struggle with these words since most of them are either proper nouns, or words that are rarely used in English (Nation, 2001). For the low-frequency words, teachers might give strategies to deal with such vocabulary. Schmitt & Schmitt (2014) stated, “it is better to teach the vocabulary learning strategies so that the learners learn these infrequent words on their own” (p. 485). Some of the strategies include guessing words from context clues, such as, the usage of capitalization letter with proper nouns, and these strategies make it easier for the students to recognize words without spending time to look words up in dictionaries, which might not be helpful, especially with proper nouns. Additionally, some specialized and technical words also occur so infrequently that some researcher such as Nation (2001) believe that they are not worth spending classroom time on even though they are essential to the comprehension of specific content areas of study. This position suggests that content words divide into two tiers: mid frequency and low frequency.

Researchers indicate that readers need at least 98% of words in a text to be familiar to be able to comprehend it adequately (Laufer & Ravenhorst-Kalovski, 2010). Therefore, students in higher education are required to know high frequency words, general education academic words, and specialized academic words in order to comprehend an academic text sufficiently. As discussed earlier, general academic and specialized words make up 15% of running words in a text (Nation, 2001), and these words are typically full of meaning (Townsend, & Kiernan, 2015). When NNSEs face unfamiliar words in the general education course material, they very likely would stop reading to look up words before they can continue in order to understand and comprehend the material. However, looking up words is not always sufficient because translation dictionaries give more than one meaning which makes it hard to guess which one fits best within the context. In addition, repeatedly looking up words not only wastes a student's time but also may cause a student to lose the motivation to continue reading.

**Idioms and slang.** Cakir (2011) points out that idiomatic expressions are the reflection of customs, cultural beliefs, norms of a society, and social attitudes of the native user. It is for this reason that NNSEs find idioms difficult to understand. They do not know what cultural image the idiomatic expression is based on. In addition, a person's first language has an effect on second language acquisition, and it is claimed that a first language can interfere with the acquisition of a second language (Derakhshan & Karimi, 2015). Researchers, not surprisingly, believe that the role of first language in the second language depends on similarities and differences between the two languages (Derakhshan & Karimi, 2015).

English language is full of idiomatic expressions. There are many different idioms used by English speakers. What makes learning the idioms in the English language so challenging is not only the large number of the idioms but also the way idioms format. When translation of an idiom is approached word-by-word at the literal meaning, they make absolutely no sense in other languages, which is a problem that NNSEs face when it comes to translating. Rather, they would benefit from learn the idioms as a whole unit. However, some researchers, such as Grant & Nation, who research on the frequency of idioms, show that “If idioms were treated in the same way as single words in frequent count, none of them would get into a list of the 5,000 most frequent word families of English, and only seven would get into the top 7,000” (2006, p. 5). Therefore, Grant & Nation think idioms “Are not frequent and do not deserve classroom time” (2006, p. 5).

### **General Problem**

In the United States, most universities require students to take a certain amount of general education courses (GECs). These classes are added on top of students’ mandatory major courses with the intent to increase their knowledge beyond what is required in the students’ focus of specialization (Seraphin, 2013). The GECs, often referred to as “gen eds” or “core curriculum” classes, are a collection of credits required by all majors for a degree (Seraphin, 2013). At MSUM, the general education requirements are essential for all undergraduate students for any degree while pursuing a specific concentration in a chosen field of study (MSUM, 2018). The university provides a broad range of courses to fulfill the Liberal Art and Science Curriculum (LASC) requirements. Specifically, in the MSUM’s LASC, there are eleven goal areas, and each has several general education courses with the exception of Goal Area 11: Information Literacy. This goal area is

embedded in the curriculum of Goal Areas 1A through 10 and is satisfied through completion of the other goal areas. MSUM require students to complete a minimum of one course in all goal areas with the exception of Goal Area 3: Natural Sciences, Goal Area 5: History and the Social and Behavioral Sciences, Goal Area 6: The Humanities and Fine Arts, which require two courses with different disciplinary rubrics. The general requirements of the general education courses are a total of 14 courses minimum which equal to 42 credits with a minimum of 2.0 GPA in all courses used to fulfill LASC requirements.

In Goal Area 1A: Oral Communication, there is only one course which is known as Speech Communication (COMM 100), while in Goal Area 1B: Written Communication, there are two courses known as English Composition (ENGL 101), and Honors English: Ideas, Reason and Exploration (ENGL 105). In Goal Area 2: Critical Thinking, there are 14 courses; in Goal Area 3: Natural Sciences, there are 27 courses; in Goal Area 4: Mathematics/ Logical Reasoning, there are 11 courses; in Goal Area 5: History and the Social and Behavioral, there are 35 courses; in Goal Area 6: The Humanities and Fine Arts, there are 52 courses; in Goal Area 7: Human Diversity, there are 31 courses; in Goal Area 8: Global Perspective, there are 52 courses; in Goal Area 9: Ethical and Civic Responsibilities, there are 27 courses; and finally in the Goal Area 10: People and the Environment, there are 22 courses.

At MSUM a new program was established in the school year of 2017-2018. This program was designed exclusively for NNSEs and structured in a way that they would receive the support they need for their academic courses in their higher education. The

framework of the program consists of 35 courses, five of which are supposed to focus on vocabulary in English.

Table 1

*English Language Program (ELP) at MSUM*

| Level           | Pronunciation                  | Listening                                    | Reading                            | Writing                                       | Syntax                                    | Vocab                                   | Culture   |
|-----------------|--------------------------------|--|------------------------------------|---|---|---|---|
| 09x and 1xx ELP | ELP 101<br>Pronun.<br>Lab      | ELP 102<br>Conv. I                           | ELP 093<br>Reading I               | ELP 094<br>Intro to<br>Writing<br>Conventions | ELP 095<br>Basic<br>English<br>Syntax     | ELP 096<br>Conv<br>Vocabulary           | ELP 107<br>Orientation<br>to Campus &<br>Community  |
| 2xx ELP         | ELP 201<br>Pronun.<br>Lab      | ELP 202<br>Conv II                           | ELP 103<br>Reading II              | ELP 104<br>Comp I                             | ELP 105<br>Inter.<br>English<br>Syntax I  | ELP 106<br>Foundational<br>Vocab        | ELP 207<br>Intro to<br>America                      |
| 3xx ELP         | ELP 301<br>Pronun.<br>Lab      | ELP 302<br>Discuss'n<br>& Debate             | ELP 203<br>Reading III             | ELP 204<br>Comp II                            | ELP 205<br>Inter.<br>English<br>Syntax II | ELP 206<br>General<br>academic<br>vocab | ELP 307<br>Contempor<br>y America &<br>World Events |
| 1xx TEFL        | TEFL 101<br>Oral<br>Present'ns | TEFL 102<br>Lectures<br>& Note-<br>taking I  | TEFL 103<br>Academic<br>Reading I  | TEFL 104<br>Acad Wrtg I                       | TEFL 105<br>Advanced<br>Syntax I          | TEFL 106<br>Subject<br>Studies          | TEFL 107<br>American<br>Childhood<br>Classics       |
| 2xx TEFL        | TEFL 201<br>Oral<br>Present'ns | TEFL 202<br>Lectures<br>& Note-<br>taking II | TEFL 203<br>Academic<br>Reading II | TEFL 204<br>Acad Wrtg II                      | TEFL 205<br>Advanced<br>Syntax II         | TEFL 206<br>Subject<br>Studies          | TEFL 207<br>American<br>Cultural<br>Classics        |

Three of the five courses focus on those words that range between the frequency word lists and the general academic word lists. These courses consist of the following: ELP 096 Conversational Vocabulary, “which provides focused attention and preparation on the most frequent words of English” (Course Outline); ELP 106 Foundational Vocabulary, “which help builds a student’s vocabulary beyond the most frequent words of English” (Course Outline); ELP 206 General Academic Vocabulary, “which moves students’ vocabulary beyond the frequency word lists to the general academic word lists” (Course Outline). Materials for these three courses are readily available from publishers of English as second language texts, such as *Academic Word Power 3* by Pat Bull, which

focuses on 140 word families from the Academic Word List; *Essential Academic Vocabulary: Mastering the complete academic word list* by Helen Huntley, which also focuses on the Academic Word List; and *Key Words for Fluency Intermediate: Learning and practicing the most useful words of English* by George Woolard, which focuses on word fluency beyond the frequency word list and provides practice in learning collocations of some of the most useful words in English.

TEFL 106: Vocabulary for Subject Studies I was created to move students' vocabulary abilities from the general academic word list to studying the ways words are given specialized meanings in different academic disciplines. This course focuses on "learning basic vocabulary for studying within the broad subject-based disciplines of mathematics and science" (Course Outline). The other course is TEFL 206 Vocabulary for Subject Studies II, "which develops students' vocabulary by studying the ways words are given specialized meanings within broad subject-based disciplines of the arts, social sciences and in literary texts" (Course Outline).

The outlines for these two particular courses are too general to locate established materials for use as course texts. Books that are available from publishers of English as second language text are either specific for school grade level, such as *Academic Vocabulary in Middle and High School: Effective practices across the disciplines* by Donna Ogle, or a dictionary book like *Dictionary of Applied Math for Engineers and Scientists* by Emma Previato. Going further, lack of research on these discipline-specific words creates an issue that needs to be resolved in order for MSUM to provide support that meets the vocabulary needs of this important student population.



**Research Questions**

Because of the lack of research on the vocabulary needs of NNSE students in particular, and the absence of vocabulary preparation texts for the general education courses, I conducted a research study with the following questions in mind:

1. What courses in the general education curriculum are the most studied by international students at MSUM?
2. What textbooks are used in these subjects and what materials are covered in one semester?
3. What kind of vocabulary and concepts do non-native speakers need to succeed in general education courses?

Answering these questions allows for a greater understanding of which vocabulary is needed for international students to prepare them for general education courses and to succeed in their higher education. A study focused on vocabulary should provide vocabulary course instructors with detailed information which will allow them to prepare the right materials to their international and NNSE students. This is particularly important for MSUM, because it has more than 400 international students who are currently pursuing their higher education.

## **Chapter Two: Methods**

In order to know what kind of vocabulary NNSEs needed to succeed in general education courses, I conducted a mixed methods approach. First, I used quantitative techniques to analyze enrollment data from MSUM to learn which general education courses are most frequently taken by international students. Then, the study moved from identifying the courses to conducting semi-structured interviews with permanent faculty members at MSUM who teach those courses to identify the instructional materials that were used for students and to discover what vocabulary and concepts the students would need to know before entering general education courses.

This study took place at a university in an urban, Midwestern city where international students enroll in higher numbers compared to other institutions in the state. MSUM is one of the five institutions that accounted for 73% of international students in the state from 2016-2017 school years (Open Doors, 2017). As for 2017-2018 school years, MSUM has a total population of 414 international students, 195 females and 221 males (Minnesota State University, 2018). These students were from different continents including 213 students from Asia, 138 students from Africa, 29 students from the Americas, 25 students from Europe, seven students from the Middle East, and two students from Oceania (Minnesota State University, 2018).

**Participants**

The student participants in this study include international students enrolled in general education courses over the past three academic years at MSUM. The school years included are 2014-2015, 2015-2016, and 2016-2017. Because participant identifiers were removed before the data were shared with the researchers, it is impossible to give a total participant count in this report. Data only identified courses and the number of international students enrolled in each course each semester of the three-years studied. Students usually take more than one course each semester, so adding the total number of courses enrolled in will produce an inflated number of participants.

Seven permanent faculty members participated in this study. These participants have experience of teaching at MSUM for at least five years. Three faculty members were from the Economics Department, one from the Sociology and Criminal Justice Department, one from the Anthropology and Earth Science Department, one from the Law and Politics Department, and one from the Biosciences Department.

**Materials and Instruments**

An informed consent letter was made available to the participants (Appendix A). An interview guide was developed and used by the investigator for the semi-structured interviews (Appendix B). An audio recorder on a Huawei Android phone was used to record the interview sessions. As a back-up, hand written notes were taken by the interviewer. The audio recordings were transferred to a password-protected laptop computer for transcription purposes and kept in a password-protected folder. The transcriptions were labeled with pseudonyms and kept in the same digital folder on the same password-protected laptop.

**Procedures**

Based on MSUM policy of conducting research, when research involves human subjects, the research activity must be reviewed by the Institutional Review Board (IRB). As a result, the first step in the process was obtaining permission from the IRB at MSUM. The second step was requesting enrollment data for international students for three academic years. The students' names were suppressed before the data was given to ensure students' confidentiality. After receiving the data, each academic year was analyzed separately by counting how many times each course was taken by the students while using color-coding techniques to organize and separate the courses. Each course was labelled as a different color; this step helped organize the findings for each individual school year. To recognize the most frequently taken courses over three academic years, all of the data was combined in one document, and the total number of enrollments in the courses was sorted from the largest to smallest number.

The third step was finding information about the professors who teach the identified courses. Basic information, such as who taught each course over the spring 2018 and the fall 2018 academic terms, was obtained from MSUM e-services course schedules. Also, a faculty member's contact information, such as email, was obtained from the MSUM website. Through these steps, seventeen permanent faculty members who teach the general education courses at MSUM were initially invited to participate in this study through email. The researcher later approached these faculty members individually, explained in written form the idea of the research, and asked if they were interested in participating in the study.

The fourth step was interviewing faculty members. A semi-structured interview (Appendix B) was used with the participants who were permanent faculty members who teach the identified courses, to detect the instructional materials that were preferred, to discover their thoughts on the most important terms and concepts that are necessary to understand the course content, and to identify what international students, specifically the NNSEs, struggle with in their courses. Prior to the individual interview, informed consent was gained from all the participants. In addition to the written form, the letters of consent were reviewed orally before the interviews took place and signatures were gained from all the participants. Confidentiality was protected through the use of pseudonyms that were assigned to each participant strictly for the purpose of this study with no identifying information.

The interviews with all participants were conducted and spread over a two-month period and took place in a private room at MSUM campus during the fall of 2018. During all interviews, the researcher followed the interview guide and used an audio recording device to record the interview sessions. The audio recording was later used to create transcripts of the interviews. The transcripts all together were 50 pages long single-spaced. In order to organize the findings, the researcher used a color-coding technique. One theme of discussion was designed with one color. When it came time to analyze the discussion, the researcher progressed through the colors one at a time. The final step was reporting on the findings.

### **Chapter Three: Results**

#### **MSUM Courses**

After obtaining permission from the IRB, the study began with analyzing the data of international students' enrollment for the general courses over three academic years. The three academic years of 2014-15, 2015-16, and 2016-17 were analyzed separately by counting how many times each course was taken by the international students based on the enrollment data. Then, enrollment data total of three years was analyzed for the final findings. Ten courses were identified as the most frequently taken courses by international students. One in each LASC area was identified as the top one from the most frequent courses taken by international students.

The results show that COMM 100 Speech Communication is the only course that fulfills Goal Area 1A: Oral Communication, and a total number of 203 international students enrolled in it over the three academic years. Two courses fulfill the Goal Area 1B: Written Communication, they are ENGL 105 Honor English: Ideas, Reason and Exploration and ENGL 101 English Composition 1 which was the top one taken in this goal area with total of 294 international students enrolled over the three academic years. Two courses, ENGL 101 and COMM 100, were excluded from the research since all students are required to take these courses as part of their general education courses and courses in the ELP already prepare for these two courses.

In the Goal Area 2: Critical Thinking, ECON 100 American Economy was the top course taken with total number of 178 enrolling over the three academic years. The top course in the Goal Area 3: Natural Sciences was BIOL 104 Human Biology with total of 132 international students enrolling over the three academic years. The top course in the Goal Area 4: Mathematics/ Logical Reasoning was MATH 234 Intro to Probability and Statistics with total of 139 international students over the three academic years.

The top course in the Goal Area 5: History and the Social and Behavioral was SOC 110 Intro to Sociology with total of 252 international students over the three academic years. The top course in the Goal Area 6: The MUS 111 Humanities and Fine Arts was Art of Listening with total of 192 international students over the three academic years. The top course in the Goal Area 7: Human Diversity was ANTH 110 Intro to Cultural Anthropology with total of 267 international students over the three academic years. The top course in the Goal Area 8: Global Perspective was POL 160 International Relation with total of 75 international students over the three academic years. The top course in the Goal Area 9: Ethical and Civic Responsibility was COMM 101 Introduction to Mass Media with total of 90 international students over the three academic years. The top course in the Goal Area 10: People and the Environment was BIOL 346 An Ecological Perspective with total of 50 international students over the three academic years. In addition to the two courses, COMM 101 and MUS 111 also were excluded since the vocabulary related to these courses is tied to other courses in the TEFL program which are required for the students to take. It seems that the COMM 101 course relates to ELP 307: Contemporary & American World Events; whereas, MUS 111 relates to TEFL 102: Lectures and Note-taking and TEFL 202: Lectures and Note-taking II. Table 2

present all the data on courses and numbers of students enrolled for each year of the three years as well as the three-years total.

Table 2

*Most Frequently Taken LASC Courses*

| Goal Area                                | Course              | Number<br>2014-15 | Number<br>2015-16 | Number<br>2016-17 | Total |
|--|---------------------|-------------------|-------------------|-------------------|-------|
| 1A: Oral Communication                   | COMM 100            | 92                | 67                | 44                | 203   |
| 1B: Written Communication                | ENGL 101            | 107               | 98                | 89                | 294   |
| 2: Critical Thinking                     | ECON 100            | 45                | 77                | 56                | 178   |
| 3: Natural Sciences                      | BIOL 104            | 62                | 13                | 57                | 132   |
| 4: Mathematics/Logical Reasoning         | MATH 234            | 55                | 40                | 44                | 139   |
| 5: History and the Social and Behavioral | SOC 110             | 61                | 92                | 99                | 252   |
| 6: The Humanities and Fine Arts          | MUS 111             | 54                | 60                | 78                | 192   |
| 7: Human Diversity                       | ANTH 110            | 117               | 77                | 73                | 267   |
| 8: Global Perspective                    | POL 160<br>(Goal 5) | 27                | 17                | 31                | 75    |
| 9: Ethical and Civic Responsibility      | COMM 101            | 28                | 40                | 22                | 90    |
| 10: People and the Environment           | BIOL 346            | 17                | 16                | 17                | 50    |

**MSUM Faculty Interviews**

A total of 17 faculty who teaches the six top courses were targeted in the research design. However, many faculty who teach BIOL 104, MATH 234 declined to participate, and there were other faculty who teach SOC 110, ANTH 110, POL 160, and BIOL 346



that declined to participate as well. There were seven faculty members that participated in this study. Six out of seven participants were men and one was a woman. All of them have been teaching the general education courses at MSUM more than five years. All participants interviewed had taught at least one of the general education courses which were frequently taken by international or the non-native English students. The seven participants are identified in this report by the courses they teach rather than by name to protect their privacy. Three out of the seven participant teach the ECON course and are identified as ECON1, ECON2, ECON3. One participant was included for each following course: SOC 110, ANTH 110, POL 160, and BIOL 346, and they, too, are identified in this study only by the course taught. Each participant was asked to provide information on the materials they use in their courses and key concepts in the materials. In addition, each was asked to provide their position on the vocabulary abilities NNSEs need before enrolling in the course and working with these materials.

### **Materials**

All participants agree that they use their own chosen material for their students. Most of them use textbooks whether it is print or electronic. However, their reason for choosing their material is different. Some of the instructors indicate that they use online open source material because it is free. Therefore, it should not cost students money, and it is easy to navigate through. Other instructors indicated they choose their material because it contains simple language, and therefore, it is easier for the students to read. Materials used in these courses can be seen in Table 3.

Table 3

*Used Materials in Courses*

| Course     | Materials  | Units of Focus   | Concepts/Terms   |
|------------|--|--|--|
| SOC 110    | Ain't No Makin' It- textbook and other online materials which contain 10 major units | All units from the textbook+ unit on the history of sociology, unit of culture, unit on socialization, inequalities and social class, unit on family, unit on race, unit on gender, unit on religion, unit on demography, and socialization. |  |
| POL 160    | International Politics by Paul D'anieri  | Four sections- International security, military capacity, nuclear weapons, international law and international organizations, and economics and international trade.   |  |
| ANTH 110   | Introductory cultural anthropology textbook  | Focus on 10 sections include- whole concept of anthropology, how anthropologists view culture, how anthropologists study culture, some different aspects of culture, language, religion, politics, kinship, race, and family                 |  |
| BIOL 346   | Chemistry of Life- textbook and other online materials                               | Most of the units in the textbook  | biology, chemistry, life, digestive system and nutrition, heart and blood vessels, respiratory system, reproductive systems, other terms such as ascending transcending and descending |
| ECON 100_1 | Survey of Economics: Principle, Applications, and Tools textbook by O'Sullivan       | All units except chapter four  |  |
| ECON 100_2 | Contemporary Economics: An Applications Approach textbook by Robert J. Carbaugh      | Almost all of the units in the textbook with focus on critical thinking in economics   |  |
| ECON 100_3 | Survey of Economics textbook by Irvin B. Tucker                                      | Almost all of the units including: forefront, critical thinking, micro economics and macro economics   |  |

### **Necessary Concepts and Key Terms**

Students do not need any specific content terminology or concept learning before taking general education courses. When participants were asked directly if there were any particular concepts or key terms that they wish their students to have before taking their courses all the seven participants who teach SOC, POL, ANTH, BIOL and the three other instructors who teach ECON expressed the idea that the general education course that they teach is set up as an introductory course, so they do not expect the students come to class and know any specific terms or concepts of the discipline coming into their courses. In general education courses or “introductory courses,” as most participants called them, all faculty agree that the students need to know basic English and basic vocabulary. SOC mentioned “I want the students to come in knowing that this is an introductory sociology class, and I don't expect them to even know what the definition of sociology is.” He continued “Many of them [students] don't have sociology in high school.” This indicates there is no expectation for specific terms and concept before taking this course. He further explained and asserted that his assumption is that when students come to his class, they do not have to know these new concepts ahead of time. He tried to explain the idea, saying, “So, in my introductory sociology class, we talk a lot about social reproduction, and I would define this important concept for the students.” For clarification, he explained that he expects students to have a basic understanding of the language along with basic general vocabulary of English.

POL also made it clear there is no need for particular concepts or key terms taking his course. He stated, “I teach the course as an introductory course.” ANTH also responded without hesitation that he does not wish the students would have any particular

concept or key terms before taking the course. He said that even though there are concepts and key terms related specifically to their courses, as part of his introductory course, he would teach these specific concepts and key terms to the students in the class. The participant thinks that most international students need to learn the basics of English language like anyone who wishes to learn in a setting where a non-native language is the dominant one in use. BIOL responded, "I don't think so, not for this non-major course."

The three instructors who teach ECON shared the same thought about this point. ECON3 stated, "I don't really feel that there's anything that they have to know coming in." That indicated she also agrees with other instructors explaining there is no need for the students to know particular concepts or key terms before taking the ECON course. She added "I try to make sure they know, and I'll frequently use several different terms and remind them that those are synonyms because they don't need to learn a new language to be good at economic concepts." At a later point in the interview she explained, "so most of them already have some type of vernacular to describe economics actions," and that is what matters most for the instructor. She went on to describe a scenario in which a majority of her students were not familiar with specific ECON concepts. She explained, "We have to back it up a little bit and start it more at the beginning and let them develop the language up to the point that they have familiarity." So, even in case where students need particular concept, she thinks, it would be the general course instructor responsibility to teach these concept to the students and help them understand these concepts.

ECON1 did not even wait for me to finish asking the question, directly and quickly interrupting, "No, no, just as long as they understand most terms for regular

conversation, I mean, the basic general vocabulary so they understand ‘do this do that’.” And like other instructors, ECON1 explained there is no desire to have students know specific concepts or key terms entering his course; however, he stated “there are terms technical terms, but we find them in the class.” He believes there is not a lot of language issue in his course that he would talk about. Also, there is no vocabulary problem, as he said, “So what kind of vocabulary, I don't see a lot of trouble with that,” an answer that he made without hesitation. ECON2 stated, “If they can understand the basic words, everything else is there for them.” He added, “So the idea is that the students need to understand basic words and then the next step and that hopefully, if they're motivated, they're going to do well.”

General education instructors have methods and techniques for teaching discipline specific terminology and concepts for their students. All faculty agree that they have their own methods and techniques teaching discipline specific terminology and concepts to the students. ECON1 shared his idea when he stated, “So the idea is that the students need to understand basic language skills and basic words.” He explained his method and ways of teaching students these concepts and terms in his class. He stated, “This is done by structuring the course in a way so the students know what they are going to do each and every day.” He uses a syllabus in which the students would know what they need to know. The materials that he uses for the class are also available for the students. What they do in the class, then, is practicing what they are learning. He further described a scenario of practicing the process that the students go through when he teaches a new topic in the class. He explained, “They read the book, we go through some examples, and then I hand worksheet out and then they work individually or in groups drawing it out.”

He continued, "I give them a lot of opportunities to do this." Then, he explained his way of evaluating what the students learn from this new material, and he talked about the methods and techniques that he uses when it comes to evaluating students' performance. He explained that he would give his students a study guide before they take the tests. Even when it comes to the test itself, he says that "The students could do a multiple-choice quiz, and they have the choice whether to do it in the class or doing it online." He added, "So the idea is that, then, notice here, there should be no issue as it relates to language. If they can understand the basic words, everything else is there for them."

The other two, ECON2 and ECON3, also, talked about the pedagogy methods that they used in their courses and how they use a method to help their students grasp the necessary vocabulary that they need to learn in these courses. ECON3 thinks it is part of her responsibility to help the students understand the meaning of difficult words not only in the class but even if they face word problems in a homework or a test. "I repeat to all students, if you're taking a test or working on homework, you can ask me at any time, and I'll be happy to offer a synonym or an example and then you can speak back to me and say, well, here's what, what this would mean to me?"

ECON3, then, explained that in the class she uses generic terms that international students would be familiar with instead of using only Americanized terms that are less well known by all the students. Another thing she uses in her classroom to help NNSEs cope with the language is allowing them to use dictionary if they want to, because she believes it is helpful to know the meaning of certain words. "If they ask if they can use a dictionary for looking up terms that are

problematic or unfamiliar, that's certainly an accommodation I allow because simply knowing the meaning of certain words that are language specific can be very helpful." This point is one that ECON2 makes, too, when he says, "So, I have some students who use a dictionary in class, and that is allowed in my course." So again, dictionary is a tool that ECON2 is allowing in his course as an accommodation to help NNSE students overcome language barrier. He thinks this would help the students to be successful, when he says, "The idea's that they could then use that as a part of the process of becoming more accustomed to their first language and the second or third language, so they can be successful." This makes sense since the language is part of the process in learning.

The other three out of the seven participants BIOL, POL, and the SOC also talked about their pedagogy methods and how they use a method to help their students grasp the necessary vocabulary that they need to learn in these courses. BIOL explained that even though there are scientific terms and concepts related to his course, he puts the time in to make sure the students understand them before going further in the lesson. He stated, "So they need to learn the terminology but then if you just tell them exactly what it means, a lot of them, you can see in their faces, they just think, alright."

So even though international and NNSEs struggle with some scientific words in BIOL course, he provides support for them in his class. BIOL mentioned that NNSEs struggle, "When you say something like ascending, transcending and descending colon." These are examples of the words that most related to the discipline. He then explained "I don't know if it's specifically the international students, but they, I guess a lot of them don't get that." That means, the issue is not only specific to international students, rather

most of the students including domestic students are struggling with these discipline specific words. He thinks that international students would struggle more because most of them if not all do not really come across these types of words in a daily conversation. As he mentioned “You probably just didn't come across especially if English is your second language.”

Then he added, “I've always got this. It's the terminology that puts them off, but if you just say it plain and simple, they get it.” He went further and described his method that he used in the course to help his students with the scientific terms, “I definitely don't use too many big words, and what I usually do is, I give them what the actual scientific definition is on the slide and then tell them what it means in plain American.” He also mentioned that in his course he would use an equivalent terminology to help the students understand better. As he said, “then when I say all right, it goes up, it goes along, and it goes down, they get it.” He also explained that the students always are encouraged to ask questions about anything they struggle with or need to be clarified, including any difficult words, concepts or terminology. He added “Whenever I notice students have difficulty understanding a vocabulary, I would repeat myself and try to explain the meaning of unfamiliar vocabulary in a different way, so the student could understand it better.”

POL talked about his method of helping NNSEs. He explained his method when he said, “What I almost always have to do with most of them is give them more time, put them in a different area, let them use the book, or whatever it might be useful.”

SOC clearly defined his method which he describes as “My pedagogy is a little different, my pedagogy is that I give a lot of information.” Then he specified



his own method and techniques when it comes specifically to international students or NNSEs “In terms of vocabulary needs, if the students are not familiar with a word, and many of them are not familiar with some of the concepts that we use, the exams and the assignments are structured in such a way that they could find out.” In order to help NNSEs in his course, the instructor provides a lot of sources that go with the class materials, as he said, “I also give them the opportunity to read and use any resource that they have at their disposal.” Then he added, “I also do not give multiple choice exams and I don't expect students to come to class and write essays in class.” His method and strategies are not limited to class time but apply if they need help with the assignments or quizzes even after class. “They can call me and say, what do you mean by this?”

SOC clarifies that international students may still struggle with discipline specific terms and concepts, because they are still learning something new and need to work on it. SOC stated, “my assumption is that a limited vocabulary shouldn't prevent you from getting through my course.” After this explanation, SOC quickly clarified “if you come to class every day, if you do your readings, if you ask questions about concepts that you do not understand”. At a later point in the interview, he stated, “I try to make it very easy for students to understand what we are talking about and to show me that they understand what they are learning.” SOC does not desire to put an assumption in which students know specific discipline language before taking his course; however, he thinks, students have to be responsible and do their work in order to get through the course. Which is a point that ECON2, also, agrees on as he explained that the students are learning something

new in his course regarding terms and concepts, however, they have to work for it.

“So, if they work hard, they can pick up these skills, and can learn new knowledge.”

ANTH discussed his method when it comes to quizzes and exams for all the students whether the students are domestic or international, as he stated, “They have quizzes, they have to take a cumulative final exam, but they have three exams prior to that. I'm going to drop the lowest of those three scores if they take all three.” Even though all the faculty realized that they have to use a special method to help international students cope with the English language in their courses, each one of them used his own method that he/she sees helpful for the international students

International students and NNSEs face challenges that are more related to the cultural context than vocabulary. When the participants were asked if there are any other challenges that they noticed for the students that they can be addressed in a language development course, majority of participants agreed that the challenges that the students face are related to the cultural context. The SOC specifically named the challenge of giving a student “a sense of entitlement.” He explained that giving NNSEs a sense of entitlement in the university, means that “the culture is that your professors work for you. We want you to succeed, if you do not understand at university, certain professors are here to help you and to work for you. And it's very incumbent upon you to seek out help to ask questions if you don't understand.” Then he added “So giving students a sense of entitlement to say that they have a right to know, to have a right to learn, to have a right to engage, to have a right to question, I think is very, very important.” Then he described a scenario in which students

hesitated to ask questions about meaning of important words or concepts in the class:

I see with my Japanese students, they have these little English translation things you typed in the word and it gives you a definition, a lot of the concepts that we are using in class tonight, and they wait until the class is over and everybody's walking out, they come in and say, hey professor, could you explain this word for me. It is a very important word, very important concept, but they won't ask in class.

ECON3 also agrees that asking questions is a challenge which she noticed most international students are struggling with. She would like to see her students have a sense of entitlement coming to her class. She believes that international students would benefit from a course in which students would learn about university culture and expectations, she stated, "So maybe just encouraging them to have the confidence to clarify if something is uncertain or inconsistent, to not be afraid to ask." She explained that most of NNSE students hesitate to ask questions during the class time which leaves them confused about certain things. She stated, "you may need to ask to clarify with the professor or just ask some questions, something like, could you explain that to me." She added, "And I think most of us would know, appreciate the desire to just ask and clarify." She made a clear point that international students need a period of adaptation, which is a point that the ANTH also made when he explained that international students would benefit from "initial period of adaptation," he suggested international students have a separate section in which they learn how to adapt and adjust in the new university setting as he stated,

I think they would benefit from having somebody who knows what it means to be a foreigner or a stranger in a different place and advice on how to adjust. I don't think your average FYE instructor is going to be able to do that. I mean if they are talking to local students, like somebody who grew up in Minnesota and North Dakota, yeah, that'd be able to help them with the basics of adapting. But these international students, it's a different story.

He also explained who else could be in these kinds of sections which he believes would benefit the student when he said, “sections of classes for at risk students, students who came in with low ACT scores with other red flags that would indicate they may not last the first semester.”

In addition to the major cultural challenge that international students face in a university setting, there is also another secondary challenge. The other challenge is related to culture norms and expectations more than the language and vocabulary. SOC talked about how it is important for the students to be assertive in a university setting. The instructor explained how NNSEs with limited language tend to be “less assertive, especially when it comes to group work assignments.”

The ECON1 also agree that a number of international or NNSEs struggle with the norms and expectation of university in United States. He explained that most of the international students do not usually follow the expectations to show up to class on time, leave class on time, and meet the deadline of course assignments. Another participant, ECON2 also agrees that international students struggle meeting these norms and the expectations as he explained,

Language is the first most basic component. The second component is engagement, which means reading, doing your work, showing up for class, doing assignments and getting them done on time, and then engaging with other students. In fact, I think those are becoming a part of the university community.

The other challenge that the SOC talked about is not exclusive to NNSEs in his course, however, it occurs from time to time in his course which is the issue of plagiarism. SOC, then, explained that in most cases it was not clear whether it was intentional plagiarism, or it occurs because of the academic culture differences between the students own academic culture and the United States academic culture.

The ANTH also believe that academic dishonesty is not the greatest in his course. As he stated, “I mean, students cheat, students plagiarize regardless of where they come from. It's just something that has always been with us and probably always will be.” He added, “I don't want to give the impression that I'm saying it's restricted to international student because it is not.” Again, he suggested that in specific section for international students, instructor need to emphasis the academic honesty in a university setting. He stated, “I think that if you were to have these kinds of sections for international students in FYE that the instructors could and should hit that very clearly and say this is not going to work here.”

American idioms and slang are another struggle for international students. The POL explained how the student who struggles with vocabulary tends to use a dictionary to translate from English to whatever the students language is. However, idioms are hard to translate since idioms do not have a literal meaning. The POL

stated, “One of the big things is American slang and American idiom.” Idioms and slang phrases are usually derived from a native speaker’s culture, as the instructor explained, “a native speaker will say things in any language that may not be easily interpreted if you don't follow the culture and language.”

This is true because idiomatic expressions and slang phrases are found to be culture-based, which is the reason why the instructor thinks that the students do not understand them. He said, “They don't understand those at all and there's no reason they should. There's no cultural context to go with it.” Again, the POL thinks that teaching culture is as important as teaching the language. The POL further explained “sometimes they [the students] try to interpret it and get it completely wrong and it makes a bigger mess than it was before.” The mess puts NNSEs at a loss when they are conversing with English speakers.

Some struggles that international students face are linguistics but at the syntax and discourse levels rather than vocabulary level. Four out of the seven participants POL, ECON3, ECON1, and SOC courses think there are sometimes vocabulary needs but they are less obvious than the linguistic struggles with the syntax. They think it is relate to linguistic feature at the discourse levels and are related to the linguistic background of NNSEs students. POL believes that international students’ struggle with the discourse level rather than just vocabulary varies for different students. He associates the struggles of the discourse level with the linguistic background of a student. As he stated, “it depends on who you’re dealing with.” He added, “the use of conjunctions or syntax is really the challenge for African and Russian students.” Then, he used an example to clarify, “Russians,

for example, never use conjunctions [sic] such as [I went to store.]” He added, “well, that’s perfectly accurate, in Russia, in English you’re missing something”. He thinks that African students have the same problem with conjunctions in addition to problems with other grammatical challenges.

The instructor explained how most of his African students are native speakers of French, and then he explained, “French is a whole different system of which pronoun [sic] goes before the adjective, so you'll see something where you read it and you're like, that makes no sense, but then again if you read through it, you know what they meant.” Then, he talked about Arabic students’ problems and the challenges that they face with English. He said, “An Arabic speaker uses flowery language- in some ways you get a paragraph that's sort of like where we are going with this?” After showing the different challenges based on the linguistic background of the student, he explained, “It's not lack of intellect, it's just a lack of ability to learn all the weird things that are about the English language.” He demonstrates what he is talking about by giving an example about: Korean student he had in one of his introductory courses. He describes the student as brilliant, then he added,

The student wanted to go law school and I think she got into a couple of places. I haven't heard lately, but then again, the question becomes law is such a language dominated class that it does become a challenge for a non-native speaker to go down that road, especially the American legal system, which makes no sense to anybody else in the world. So different challenges, different places.

ECON3 also thinks the struggles are at the syntax and discourse level than the vocabulary level. She stated, "I would say every once in a while, it happens that they use like an adjective or an adverb that they might be unfamiliar with it. It's usually a modifier that's more problematic than a noun or a verb."

ECON1 also agrees that NNSEs struggles are linguistic at the syntax and discourse levels, but he specified it as oral discourse rather than written discourse. As he stated, "The main problem is they struggle more with conversational English. So, they do their work, they do well in class, but they do struggle in trying to understand how the regular conversation works." Which is a point that SOC agrees on when he talked about that challenges that the students face in his courses. He explained that the students struggle with the language at the discourse level especially at the oral discourse which he defined as "linguistic insecurity." He further explained that most NNESs do not contribute orally in the class. He stated, "If you are not a strong English language speaker, you might not feel that you could contribute to the group because your English is not strong enough."

International student and NNSEs deserve appreciation. The ANTH instructor thinks those students deserve an appreciation as he said, "try to have a little bit of an appreciation for what these students are walking through." Then, he described the situation in detail and why these students deserve appreciation, "When you interact with international students try to think about this, how well would you function if you had taken Spanish in high school or whatever, and if you had to go there and speak this all the time to take classes." Then he gave an example of his own life experience "I speak Swahili, but I couldn't go to a university and sit through classes



and think, write, and converse in it, non-stop.” This is great example of how learning in a second language is never easy, particularly if the individual native language is far different than the language one wishes to learn. ECON3 had similar perspective when it came to appreciate what these students are going through in order to succeed in a setting where the dominant language is different than their own, she stated,

I try to acknowledge in class that I learned a little French myself, but I'm not a great speaker of French. Occasionally acknowledging something that is a shortcoming or a concern for me about language helps them if there are any language concerns to know like, oh, okay, I can ask her because she admitted that she had this problem before.

A closer look at ECON3 statement reveals an empathy when she tries to help the students who struggle with the language in her course. She believes that in order to overcome the language barrier, students have to ask questions when needed. She believes that students will be open and ask more questions when they feel safe emotionally. BIOL also agrees that international students bring a lot of diversity to every classroom, which he personally appreciates. He stated, “So, that is what I like about this university. It is set up to actually welcome them as much as possible.”

International and NNSE students need the university to provide support. Several suggestions of ways to support students were offered: Smaller class size, shelter instruction, and ELP courses. POL, ANTH, and ECON3 agrees that NNSEs need an extra help with English competency in their courses. The POL discussed how hard it is to help international students with their special needs when there are a large number of students in one class period. however, in general education courses,

classes usually contain more than 150 students. He added, “There's not that much time I can devote, and I don't know if that's fair.” He further added, “These students should be in classes of 15 or 20 with someone who has idea what they are trying to do and what the problems are.” He clarified, “It's sort of difficult to have a student who gets nothing out of the lectures and that happens too frequently and they're paying for this.” He further discussed what he thought to be helpful for these students instead of being in general education courses, is sheltered instruction in which students be in special courses of English to help them with their English early in the career. He further described these special courses of English when he said, “In fact, it should be in some cases substituted for the general eds requirements and you could teach English from a social science perspective, from a humanities perspective, and count those.”

POL added, “I know the word isolation is a bad idea, but at least some assimilation with a group of like-minded folks where there some of the general eds should be presumed or subsumed into the [special courses] might be useful as opposed to dumping them into one of these massive sections of general eds.” This is because most NNSE students whether they have a background on the content area or not, they still will have some barriers with their second language. This include the fact that NNSEs are not usually able to take note while they listening to lectures. POL emphasis that through his 20 years of teaching at MSUM, he noticed that international students usually are not able to take note while they are listening to his lecture. He explained that “Many of them asked to record lectures, which I have no problem with.” So, in his class, they record the lectures in order to cope with their

English language needs, later on, the students would listen as much as they want, and they might slow it down to listen clearly in order to grasp the materials. POL thinks this is not fair for the students because it takes a lot of time and effort to get the materials compare to their NSEs peers. In order to be fair with international students, extra help with English competency before taking the general education courses would be beneficial for these students.

The ANTH also thinks it would be beneficial for international students, especially those that do not come from English speaking countries, to have special courses of English to give them a foundation of English to do well in classes at university level. He further described a university that he visited, and he thought the special courses of English that the university had worked well for international students. He stated, “They had an English language institute and they had special classes that international students would take.” The university came up with some structure to help these students. So, students at that university were required to take an assessment exam when they registered. He further explained, “The students would come in and they would take the exam and if they didn't reach certain expectations in terms of the grasp of English, then they'd be funneled into these classes and everybody would benefit from that.” He added, “I mean, if you want to try to help these students to adjust and to equip them for success in whatever major they choose, that's the right thing to do.” ANTH believes that providing more support for these incoming NNSE and international students, is so important. As he mentioned,

I think it really would be a wonderful thing if this university could provide more support for these incoming international students. They wouldn't necessarily want it, but it's what they need, and eventually I think they would come to appreciate the fact that, well, they made me take these English classes because it just improves their ability to function into that.

Improving their ability to function in English would eventually help improve educational outcomes in general education courses as well as improve students learning and achievements in their four-year school courses.

The ECON3, on the other hand, suggested that NNSE students need pre-courses in which they would be encouraging to have more reading to prepare them for general education courses. She stated, "I think in earlier courses, the more exposure they could get to reading so that the pace of reading English has less variability compared to their native-English speaker peers. I think that would be really helpful." Later, she added "I think the more reading that people could do in preparation, that would just be good so that they don't feel it's a barrier in any way."

International students and NNSEs may exceed domestic native speaker of English, in multiple areas: In specialized language use and concepts, experience with diversity, and content knowledge. Two out of the seven participants ECON3, and ANTH express their experiences through the years of teaching at MSUM. They both agree that NNSE and international students usually more familiar with terms in the conversational way than their peer who are native English speaker or domestic students. The ECON3 stated, "I would honestly say that my experience thus far has been that many international students have taken an economics class before they

came to my course and they actually are more familiar with the terms in the conventional way.” Then she added, “I would say if anything, sometimes domestic students might derail them because they aren't as used to the formal language of economics. They're used to more of the popular language of economics.”

ANTH expressed how NNSEs taking general education courses, to some extent, have a little bit advantage over domestic or native speaker of English especially those who coming from small towns and upper Midwest, because he believes that people in a small town in the middle of North Dakota have not necessarily been confronted with diversity before.

The more content area backgrounds the students can bring, the better position they are. POL stated, “I imagine in any case, no matter where you're from, the more historical background you have on world's civilization or world history, the better off you would be.” Then he added, “I don't see very many students, whether they're international or domestic, that have a background in things like political economy or international law.” POL clearly explained that students who have background on the subject would be somewhat at an advantage in the course. As he stated, “There are just some that probably follow me at a little bit more depth than others simply because of the background they have.” POL mentioned that the more background information that the students have on the subject, the better and at advantage position students would be in the general education courses. He also thinks that international students are, usually, having language issues rather than intellectual issues. In fact, he thinks “They're quite superior, but they aren't able sometimes to express what they're trying to say.”

TOEFL is outdated and does not work well to test students' ability in English skills. The POL thinks that TOEFL, which is the test that international students are required to pass for their acceptance to certain university or college within the United States, is outdated and it does not work particularly well to test students' English abilities and skills. POL believe that many international students admit to U.S. institutions based on fraudulent TOEFL test scores. He further explained "From what I understand, a lot of students don't actually take it; somebody took it for them, so they get here, and you can figure that out rather quickly."

Time is an important factor when it comes to international students and NNSEs' vocabulary and language needs. POL talked about the international students and NNSEs in his class and what they seem to be struggling with most, when he stated, "I've had different people from different parts of the world, and usually the number one factor with vocabulary needs is time. If they have two hours instead of one, they can do it." Also, POL thinks finding appropriate time in which the professor can teach a vocabulary needs for these students within their regular schedule is difficult. Since POL realized that time is number one factor when it comes to international students' vocabulary needs, he tries to help them as much as possible by providing an extra time and help for those specific students to pick up the materials and pass exams. ECON2, also, agrees that time as a factor when it comes to international students and NNESs. As he stated, "It's really important for the students not to take too many courses in one semester period, because the fact that the language takes longer time and need an extra effort."

### **Chapter Four: Discussion**

The goal while conducting this study was to explore the vocabulary needs for international students in order to prepare them to succeed in general education courses, while pursuing their higher education at the University of Minnesota in Moorhead. Based on the data collection from the faculty members' interview sessions, here are the key findings that were discovered for the research questions:

#### **Vocabulary Needs to Succeed in General Education**

International and NNSE students do not need any discipline- specific terminology or concept learning before taking general education courses. As of now, the evidence from the faculty that general education courses do not require knowing any specific content terminology or concepts before taking these courses has become overwhelming. All the faculty agree that there is no need for discipline- specific or subject-related vocabulary to prepare students before taking the general education courses; also, there are no expectations for the students to know any specific terms or concepts ahead of time.

As an alternative for the discipline specific terminology and concepts, all faculty agree that international and NNSE students need, first and foremost, to know basic vocabulary and have a basic level of English proficiency to help them succeed in general education courses, since language proficiency of the student plays a role in grasping the knowledge of course materials. Most faculty agree that having a proficiency level of English at a university level could put them in a better position when it comes to general

courses. Researchers (Schmitt, Schmitt, & Koirala) have shown that not all words are equally important in English. Therefore, researchers divided words into tiers based on their frequency of occurrence in a text corpus. Information about word frequency can help the instructor to work with the teaching materials.

Therefore, the frequency word lists are useful in order to help the instructor decide what vocabulary to teach and in which order. The instructor should be aware of students' language and vocabulary needs to match them with the frequency word lists that are appropriate. For a beginner, to prepare students for an academic setting, it would be better to focus on the high frequency words (Tier One). The most well-known word frequency lists, as the research has shown, are the Dolch 100 List, Fry 1000 Instant Word List, and GSL. Whereas, for more advanced learners of English for an academic setting, the instruction should be focused on the NAWL (Tier Two), which is a list of 963 words. The NAWL is found in academic texts which helps students acquire knowledge of academic content. Since these words are geared towards multiple content-area learning, international and NNSEs who are at an advanced level and want to pursue their higher education would benefit from learning these academic words.

Based on the findings of this study, the subjects' faculty members made it clear that specialized and technical vocabulary instruction is one of their responsibilities. It is, therefore, not the English teachers' responsibility, simply because these specialized or technical words are words specific to an area of study (Nation, 2001). Specialized terminology and concepts are generally more advanced in definition, are subject matter-related, and are essential to the comprehension of specific content areas of study; therefore, it is better to be taught at the same time the materials are presented. That means



there is no need to teach these specialized words in ELP programs to prepare international and NNSE students for the general education courses. As a matter of fact, most faculty, if not all, indicate that they have their own methods and techniques for teaching discipline specific terminology and concepts to their students in the general education courses.

The implication for MSUM, based on this study, is that faculty keep using their methods and techniques to teach specialized terminology and concepts in their classes and increase use of these words across all disciplines to support students' academic language development. Moreover, the implication for ELP at MSUM is that the two-specialized vocabulary course outlines should be revised when appropriate. The two courses are: TEFL 106: Vocabulary for Subject Studies I, which focuses on learning vocabulary for subject-based disciplines of mathematics and science; and TEFL 206: Vocabulary for Subject Studies II, which focuses on learning vocabulary for subject-based disciplines of the arts and social sciences (Course Outline). Instead of focusing on vocabulary for subject-based disciplines, it would be more beneficial to consider focusing on the NAWL, and other vocabulary aspects specifically American idioms and slang to support students' academic development. The data from this study further illustrated that American idioms and slang are another challenge that international and NNSE students face, which is also believed to be a reflection of cultural background of native users (Cakir, 2011). However, the research suggests that these idioms and slang are not frequent in use especially in an academic setting; therefore, these idioms and slang do not deserve classroom time (Grant & Nation, 2006).

In this respect, a further general recommendation emerging from the finding might also be beneficial for a K-12 setting. In K-12 setting, specialized words and concepts have traditionally been considered a duty of English as a Second Language (ESL) or English language arts teachers' rather than the content area specialist (Breiseth, 2018), which is opposite of the finding of this study suggested. In order to support NNSE students' academic language development, teachers do not need an in-depth background in linguistics or ESL methods; however, teachers need some guidance in learning how to recognize the academic words that are needed in the subject area being taught (Breiseth, 2018).

### **International and NNSE Students' Non-Vocab Challenges**

Based on the perspective of these seven faculty who teach general education courses, there are a lot of challenges that international and NNSE students face in an EMI academic setting. Most of the challenges are related to cultural background, and linguistics at the discourse levels. Since NNSEs coming from different cultural backgrounds do not mirror their professor's cultural background, not surprisingly, their knowledge about university norms and expectations is different as well. These differences in cultural background create challenges for both instructors and their students. Extra support for the international and NNSE students is needed to close the gap between the cultural background of the students and their instructors.

Some researchers such as Willingham and Price (2009) talked about the academic weakness that NNSEs face in an EMI setting and they claim that these weaknesses are a direct reflection of students' limited vocabularies which does not support what the faculty of general education courses believe. Based on the data collected, most faculty believe

that most of the challenges, or weaknesses are actually related to linguistics at the discourse level rather than the vocabulary level. As a matter of fact, the results show that other aspects of language are also important rather than just focusing on the vocabulary itself in learning a language which refutes what the Lexical Approach claims to be true. In fact, the building blocks of language learning and communication are the combination of all aspects of the language rather than just the words and word combinations. Some of the faculty further explained that most of the struggle is not a reflection of students' limited vocabulary, rather it is reflection of limitation in language proficiency at the syntax and discourse level which includes both oral or written forms. ELP program at MSUM covers a wide variety of courses and some of which are designed specifically to support NNSEs language at the syntax and discourse level. In addition, there are other courses which designed to address the other challenges that have been identified in this study.

### **University Ongoing Support**

International and NNSE students face many types of challenges, depending on the length of time they have been in the United States and their background education. Many of the learning challenges are related to cultural background and language proficiency specifically American idioms and slang, and linguistics at the discourse levels. Based on the findings of this study, it appears that additional support would be beneficial for international and NNSE students especially for those who come from linguistic and educational backgrounds that are somewhat more distant from the United States academic culture.

Several suggestions of ways to support students were offered in the results: Smaller class size, shelter instruction, and ELP courses. In this respect, drawing on insights from the faculty perspectives, all learners would benefit from support which aims to raise language proficiency along with promoting learning of relevant academic skills and practices. Some faculty indicate that international and NNSE students would benefit from a period of adaptation or what is known as First Year Experience (FYE). MSUM does, in fact, have a separate section of FYE which is a course that designed for incoming students to ease the transition to a university setting. The separate section of FYE is designed specifically for international students and it is taught by staff from the international student services office. Other faculty indicate that international and NNSE students would benefit from ELP courses to help them achieve their academic goals. At MSUM a new program was established in the academic year of 2017-2018. This program was designed exclusively for NNSE and structured in a way that they would receive the support that they need for their academic courses in their higher education. The framework of the program consists of 35 courses; however, only seven courses are opened. Based on the findings of this study, I recommend that the new ELP/TEFL program would keep moving forward. In order to cover all aspects of language along with relevant academic skills which would assist international and NNSE students achieve their academics goals in higher education.

### **Chapter Five: Conclusion**

This mixed methodology (quantitative and qualitative) study began with the initial question: What kind of vocabulary do non-native speakers need to succeed in general education courses? The data revealed ten courses as the most frequently taken courses by international students at MSUM. One course in each LASC area was identified as the top one among the most frequent courses taken by international students. After conducting semi-structured interviews with permanent faculty members at MSUM who teach the courses that identified as the most frequently taken, several important points were discovered.

Crystal clear answers show that in the general education courses, faculty believe international and NNSEs students do not need any specific content terminology or concepts learning before taking general education courses. Rather, most of the faculty indicate that they have methods and techniques for teaching discipline specific terminology and concepts for their students in the general education courses. Some struggles that international students face are linguistics but at the syntax and discourse levels rather than vocabulary level. American idioms and American slang are another struggle that international students face. Faculty also believe international students and NNSEs face challenges that are related to cultural context more than language and vocabulary. These challenges include having an appropriate sense of entitlement in a university setting, being assertive, and understanding the issue of academic dishonesty or

plagiarism. Faculty, also, believe these students deserve appreciation for their dedication and hard work to obtain higher education in the United States universities. Moreover, the faculty want to see the university support for these students at MSUM.

### **Implications and Recommendations**

Based on this study, it is recommended that vocabulary specialist teachers may not need to teach specific content related terms to prepare students for general education courses, rather developmentally appropriate vocabulary should be used to prepare English learners for these courses. Knowledge gained from this study should also be used to encourage higher education especially institutions that have a large population of NNSE and international students to support their disadvantage students in order to raise their English competency not only at the vocabulary level, but also at the syntax and discourse levels, along with promote learning of relevant academic skills and practices.

Furthermore, based on this study, recommendation for MSUM specifically is to encourage the new ELP/TEFL program to flourish, and keep it moving forward. In order to cover different aspects of language proficiency along with relevant academic skills that would benefit international and NNSE students. Furthermore, based on this study, international and NNSEs students need only general language learning and vocabulary before enrolling in subject area general education courses. Such courses must cover high frequency words, general academic words, slang and idioms, syntax, and discourse level linguistics features.

### **Limitations**

It is important to acknowledge that this study was not without limitations, and therefore this discussion is not exhaustive on the subject. The first and major limitation of

this study is the sample size. The findings of this study represent the vocabulary needs for NNSEs in general education as described by seven instructors. Three were ECON instructors, one instructor for each of the following courses: SOC, ANTH, POL, and BIOL. While their experiences are valid and informative, these seven participants cannot be considered representative of all universities in the United States, general education courses instructors.

Thus, it is obvious that the small number of general education courses participants may not present precise results on the concept of vocabulary needs for NNSEs in these courses and it is necessary to treat the findings of this study with caution in terms of generalizability. In order to conduct this research study with larger number of participants, it will be necessary to collect the data from several institutes that teach general education courses simultaneously. Another limitation is that the existing data was mostly for international students rather than all NNSEs who enrolled in MSUM for the general education courses over the last three academic years. This may have changed the result to the top ten general education courses that have been taken frequently by international students. In order to get a precise result for all NNSEs, MSUM need to set up the enrollment data for students based on their language background.

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### Appendix A: Informed Consent letter

My name is Esraa Kadhem, and I am a graduate student at Minnesota State University Moorhead. I am working with Dr. Linda Houts-Smith, associate professor of Teaching English as a Second Language, to conduct research on key terms and concepts needed for international students to be successful in their general education courses. The research results will be used to prepare the curriculum of courses in the new English Language Program for non-native speakers of English (NSEs) in the History, Languages, Critical Race, and Women's Studies Department.

You are invited to participate in this study because you meet the necessary criteria: you are a permanent faculty member who teaches one of the courses most frequently taken by international students. If you decide to participate, I will interview you to ask questions about the materials you use in your course. During the interview I will use an audio-recording device to record the interview. The purpose of this is to allow me to converse with you without stopping to write. The recordings will then be used to ensure complete understanding of the concepts. The interview will last thirty minutes to an hour, but we may request follow up time, as well. Any information that is obtained in coNNSEction with this study and that can be identified with you will remain confidential and will not be disclosed. In all of the research and reporting, a pseudonym will be used to protect your privacy. In addition, the original audio-recordings will be stored securely in a password-protected folder on a password-protected portable computer. The recordings themselves will not be labeled with your real name, only the pseudonym. Three years after the report of this study is written, the audio recordings and letter of consent will be destroyed.

Some potential benefits from this study are that international students and other NSEs can learn the key terms and concepts necessary for success in the course before taking it. They can then focus on the content rather than focusing on learning abstract and complex vocabulary along with the content in only one semester. Your participation is completely voluntary, and you are free to discontinue participation at any time. Please feel free to ask questions regarding this study. You may contact us later if you have any additional questions: Linda Houts-Smith, MSUM TESL Program Coordinator, houtsli@mnstate.edu, 218-477-4059. Any questions about your rights may be directed to Dr. Lisa I. Karch, Chair of the MSUM Institutional Review Board, at 218-477-2699 or by e-mail at: [irb@mnstate.edu](mailto:irb@mnstate.edu).

You will be offered a copy of this form to keep.

You are making a decision whether or not to participate. Your signature indicates that you have read and understood the information provided above and have decided to participate. You may withdraw at any time after signing this form, should you choose to discontinue participation in this study.

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Signature of Participant

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Date

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Signature of Investigator

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Date

**Appendix B: Interview Guide**

- What are the current curriculum materials that you are using for this course?
- What is the unit that you focus on most?
- Are there any particular concepts or key terms that you wish students will have before taking your course?
- Have you ever noticed particular vocabulary needs for international students or other non-native speakers of English in your course?
- What kind of vocabulary do most international students struggle with in your course?
- Are there any other challenges that you've noticed for these students that can be addressed in a language development course?