STARS

University of Central Florida
STARS

Honors Undergraduate Theses   UCF Theses and Dissertations

2019

Willingness to Communicate and International Students' Use of L2

Michelle Verbitskaya
University of Central Florida

Part of the Language and Literacy Education Commons, and the Secondary Education Commons

Find similar works at: https://stars.library.ucf.edu/honorstheses

University of Central Florida Libraries http://library.ucf.edu

Recommended Citation

University of
Central Florida

★ STARS
Showcase of Text, Archives, Research & Scholarship

WILLINGNESS TO COMMUNICATE AND INTERNATIONAL STUDENTS'
USE OF L2

by

MICHELLE VERBITSKAYA

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Secondary Education English Language Arts
in the College of Community Innovation and Education
and in the Burnett Honors College
at the University of Central Florida
Orlando, Florida

Fall Term, 2019

Thesis Chair: Elsie Lindy Olan, Ph.D.

ABSTRACT

Willingness to Communicate (WTC) in the second language (L2) is the "readiness to enter into discourse" which is considered to be the direct precursor of students' communication in L2 (MacIntyre et al., 1998). Oral language is thought to precede written language which creates an assumption that ongoing refining of oral skills may impact writing fluency. In respect to WTC model, there have been several versions that describe the construct (MacIntyre et al., 1998; Wen & Clement, 2003; Matsuoka, 2006). This study references self-efficacy, a cognitive variable in Matsuoka's (2006) proposed model, when analyzing writing as a phenomenon in relation to WTC. Two sequential writing samples collected from 12 international students are closely examined for key themes, which are informed by the responses to the WTC and Language History questionnaire. The results show a moderate correlation (r_s=.646) between self-efficacy and willingness to communicate among the surveyed participants as well as a moderate correlation between the error frequencies and WTC scores (r_s=.536).

Key words: Willingness to Communicate, writing, ESOL, EAP, international students, self-efficacy

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

INTRODUCTION

When looking at reasons international students choose to engage in discourse using their second language, willingness to communicate (WTC) is one of the most prominent constructs related to the language choice phenomena in the field of the language learning. WTC in a second language (L2), or "a readiness to enter into discourse at a particular time with a specific person or persons, using an L2" (MacIntyre et al., 1998, p. 547), is considered to be the direct precursor of students' communication in L2. This study places an emphasis on the cognitive variable proposed by Matsuoka (2006) when looking for the ways international students communicate in L2 due to the great impact of self-efficacy on the interaction patterns and achievement (Raoofi, Tan, Chan, 2012). Self-efficacy is thought to be a key factor in impacting "learners' interest, persistence, extent of effort students invest in learning, the goals they choose to pursue and their use of self-regulated strategies in performing a task" (Raoofi, Tan, Chan, 2012, p. 61).

When looking at the writing process among English language learners, one must recognize that oral language always precedes written language (Mendoza, 2013) and the development of the first impacts the latter (Kroll, 1981). Liberman (1989) describes the differences between the development of oral and written languages:

> "Speech could evolve and thus come first in the history of the race while reading and writing could not because of the very different ways they meet a requirement that is imposed on all communication systems: what counts as structure for the sender must count for the receiver; otherwise communication does not occur." (p. 148)

According to Swain's Comprehensible Output (CO) hypothesis (1995), ongoing refining of oral skills impacts writing fluency. That, however, may only happen with "pushed output,"

that is speech or writing that leads to correct, precise, and appropriate language production. According to Swain "producing the language might be the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning" (1995, p. 249). Unlike passive listening and reading, speaking actively involves language learners (LL) in noticing, hypothesizing, and other language learning processes. To address the relationship between speaking and writing, this study examines the relationship between WTC, a direct precursor of speech, and writing fluency.

The knowledge of elements contributing to the oral and written willingness to communicate in L2 can inform educators on the relevance of self-efficacy, a proposed element of willingness to communicate, to the writing process. Bandura (1997) argues that one's self-efficacy impacts the individuals' communicative actions. Because self-efficacy can be shaped by one's experiences, ensuring the occurrence of positive moments related to a student's abilities can impact their self-perception and communicative choices.

This study analyzes writing as a phenomenon in relation to self-efficacy and WTC. Two sequential writing samples collected from 12 international students are closely examined for key themes, which are informed by the responses to the WTC questionnaire. Descriptive case study model addresses the need for a close, individualized analysis of the writing samples. The study also tests Matsuoka's (2006) self-efficacy variable in the proposed WTC conceptual model. Due to the limitations that arose during the data collection process, convenience sampling method was used resulting in the majority of the participants to be of the Saudi Arabian origin. All of the recruited participants are enrolled in English as a Second Language (ESOL) or English for Academic Purposes (EAP) classes that are designed to build and develop LL's language

proficiency prior to them enrolling in college-level classes. Due to the nature of such programs, international students are often surrounded by other students speaking their L1. Therefore, they have an opportunity to choose whether they want to engage in discourse using their L1 or L2 and manage the proportion of the languages they speak.

Although WTC among LL is not a new topic, there were few case studies analyzing WTC in regards to the use of L2 in the context of native-speaking countries (Cameron, 2013; Mahmoodi, Moazam, 2014). There is also little information about the relation of WTC and writing in L2. This study is motivated by the following research questions:

RQ1: To what extend does international students' self-efficacy correlate with their willingness to communicate?

RQ2: How do international students' L2 communicative experiences relate to their writing fluency in L2?

Statement of Purpose

A variety of variables contribute to international students' linguistic choices that, in turn, can influence writing fluency. This study, therefore, utilizes the MacIntyre et al's (1998) willing to communicate model to investigate international students' choices to use or not to use L2. It also considers a cognitive variable proposed by Matsuoka (2006) as it includes Bandura's (1997) self-efficacy that is considered to have strong impact on communicative choices. This study seeks to explore the relation between international students' WTC and their writing fluency in L2 through the case study of writing samples. This research project employs a combination of the correlational and case study methods in analyzing contextualized writing samples in order to address the lack of case studies that deal with L2 WTC and writing.

Definitions of Terms

Comprehensible Output hypothesis (CO) – a hypothesis postulated by Swain in 1995, stating that some language learning occurs when a speaker encounters a dichotomy between an intended language output (speaking or writing) and the actual product. This gap forces the individual to try again, which supports language learning (Swain, 1995)

English as a Foreign Language (EFL) – the use or study of English in a first language environment. The instructional process is often characterized by the instructor's use of L1 when teaching English.

First language (L1) – also known as a native language, is the language that an individual was exposed to from birth or within the critical period (Penfield, 1959).

Language learners (LL) – individuals who study a second language. The term "language learners" is applicable to individuals studying their L2 in both foreign and second language contexts.

Second language (L2) – a language that is not a speaker's first language, but one studied or acquired later in life.

Self-efficacy - a belief in one's ability to complete a specific task in certain circumstances.

Willingness to Communicate (WTC) – readiness or willingness to interact with a specific person, in a specific setting, at a specific time using L2 (Maclntyre et al., 1998).

Writing fluency - ability to construct logically-organized texts that utilize topic-appropriate grammar and word choice.

REVIEW OF LITERATURE

One of the predictors of international students' communication patterns is their willingness to communicate (WTC). WTC is a dynamic process that depends on a number of variables and affects language production. Oral output, in turn, may impact language acquisition and a student's ability to write grammatically and sociolinguistically competent texts. The current review of literature presents an overview of the willingness to communicate model, self-efficacy as a variable within the WTC model, and the relationship between L2 use and writing.

Willingness to Communicate

WTC in an L2, or "a readiness to enter into discourse at a particular time with a specific person or persons, using an L2" (MacIntyre et al., 1998, p. 547), is considered to be the direct precursor of students' communication in L2. MacIntyre et al. (1998) proposed a six-layered model (Figure 1) that hierarchically connects variables that influence individuals' participation in L2 verbal communication. The bottom layer is the social and individual context that contains intergroup climate and personality. Because this layer is the most removed from language use, it has the least direct influence on language production. Moving up, layer 5 represents the affective-cognitive variables, includes intergroup attitudes, social situation, and communicative competence. Layer 4 represents motivational propensities and consists of three constructs: interpersonal motivation, intergroup motivation, and self-confidence. The bottom three layers are considered stable, long-lasting influences on L2 WTC. The top three layers, on the contrary, are considered situation-specific influences. Layer 3 has two constructs: a desire to communicate with a specific person and degree of communicative self-confidence. This layer directly influences L2 WTC. The first layer in the model is actual L2 use, which is directly influenced by

L2 WTC. This study places greater emphasis on exploring the communicative competence and social situation variables and their roles in influencing international students' interactions.
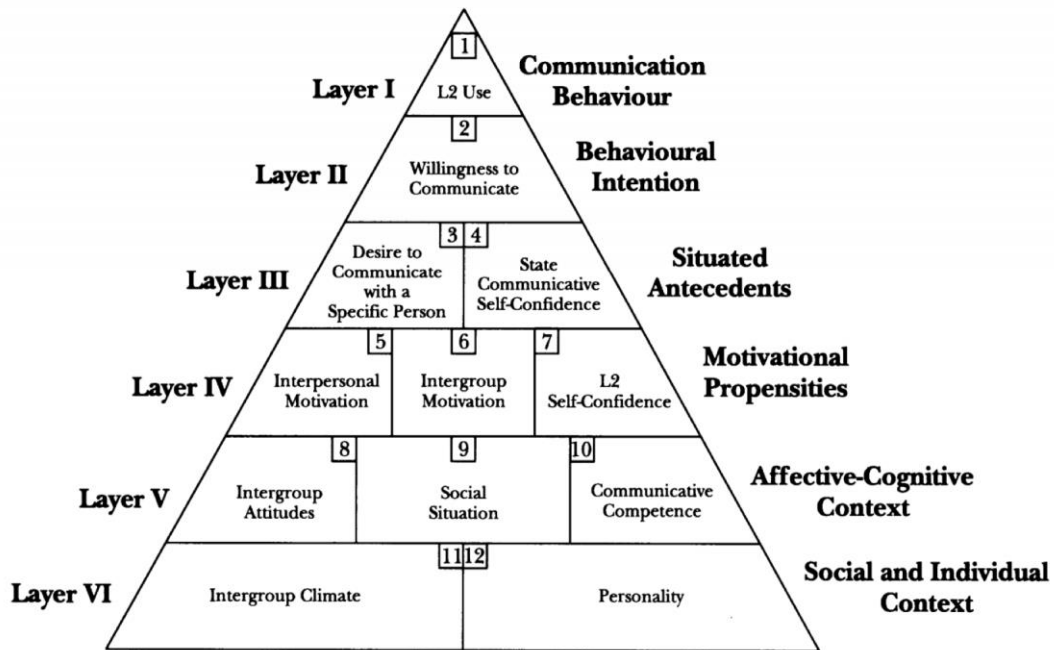
Figure 1 Heuristic Model of Variables Influencing Willingness to Communicate in L2 (Macintyre et al., 1998, p. 547).

Imran and Ghani (2014) observed a strong correlation between WTC and English language proficiency, suggesting that students who were more willing to communicate in English tended to perform well on the English language proficiency tests. Those students also rated themselves to be at a higher perceived competence level. At the same time, students not willing to communicate had low academic performance in L2 classrooms. Gallagher (2013), however, argues that the relationship between L2 proficiency and L2 use, although strong, is not always direct. A variety of contextual, social, and individual factors not only influence an individual's willingness to communicate but also impact their self-efficacy.

Matsuoka (2006) proposed a different six-layered conceptual model (Figure 2) that is based on MacIntyre et al.'s (1998) model and Wen and Clement's (2003) model. The author divides the model into two halves: the top three layers consists of situational factors and the bottom three reflect enduring influences. Starting from the bottom, Layer VI is called Societal Cultural Context, and it consists of other-directedness and international posture. Moving up, Layer V is the Cognitive Context which includes Self-Efficacy, that is made of perceived competence and motivational intensity. The last layer of the enduring influences, Level IV, is called Affective Context which includes predisposition against verbal behavior (introversion and communication apprehension). Layer III, Situated Antecedents, is the bottom layer among the situational factors. It includes desire, tension, and confidence. These three variables have the most direct impact on L2 WTC, which is Layer II. This layer is also called Communication Intention, which is believed to influence L2 use, which is located on Layer I. This study examines willingness to communicate and self-efficacy variable (layer V) due to self-efficacy being hypothesized to predict writing performance

Layer I — L2 Use — Communication Behavior

Layer II — Willingness to Communicate — Communication Intention

Layer III — Desire | Tension | Confidence — Situated Antecedents

Layer IV — Predisposition against Verbal Behavior Introversion/Communication Apprehension — Affective Context

Layer V — Self-Efficacy: Perceived Competence | Motivational Intensity — Cognitive Context

Layer VI — Other-directedness | International Posture — Societal Cultural Context

Figure 2 Conceptual Model of Variables Influencing Willingness to Communicate in L2 (Matsuoka, 2006, p. 125).

Self-Efficacy and L2 Use

Bandura (1997) defined perceived self-efficacy as a "belief in one's capabilities to organise and execute courses of action required to produce given attainments" (p. 3). Bandura argued that with the lack of a belief that a result is achievable, one will not attempt to undertake the task. Experiences largely affect the evaluation of one's own abilities (Gaffney, 2011). Successes and failures may impact levels of self-efficacy by increasing it after positive experiences and decreasing after negative ones. Gaffney (2011) reports self-efficacy having implications in educational settings, "although the application of self-efficacy to students' abilities to communicate in discipline-specific ways remains unexplored" (p. 213).

Literature related to the concept suggests an importance of people's self-evaluation in relation to undertaking tasks (Gaffney, 2011). Self-efficacy concerns with having control not only over one's actions but also thoughts, motivation, and psychological states (Bandura, 1997). It possesses a generative capability that is concerned with one's ability to apply skills and knowledge. In the domain of language use, one's self-evaluation of competence, as opposed to the actual competence, has had a strong influence on the decision-making processes related to communication (McCroskey, 1997; McCroskey & McCroskey, 1988). McCroskey & McCroskey (1988) concluded that "self-reports have little validity as indicants of competent communicative performances but may serve as useful measures of self-perceptions which may function as precursors of communicative choices" (p. 108). This effect of self-efficacy on the communicative decision-making has importance for educators since students with higher levels of self-efficacy tend to engage in doing a task. This might lead to students achieving higher scores compared to individuals with low self-efficacy (Raoofi, Tan, Chan, 2012).

Writing in L2

Storch (2009) concludes that "Living and studying in the second language environment provides learners with exposure to rich and authentic language input and with opportunities to produce extensive and meaningful language output" (p. 104). Reception of L2 input (Gass, 2003; Krashen, 1985) and production of the second language (Swain, 1993; Swain & Lapkin, 1995) are perceived as integral components of second language acquisition. In naturalistic (non-classroom) settings, language communication develops wherever social interaction occurs (Savignon, 2018), which prompts the exploration of a correlation between WTC and writing fluency.

The practice of the L2 language production is seen as more influential to the development of language skills than input (Ellis, 2003), particularly for L2 writing (DeKeyser, 1997). As opposed to the passive reception of words, the need to produce language pushes English language learners to analyze and synthesize different parts of the means of expression necessary to convey the intended meaning. Writing, especially in an academic setting, generally involves reading, synthesizing information from multiple sources, and writing a text that aligns with the grade, audience, and age appropriate conventions, such as strong introduction and conclusion, the use of proper mechanics, and logical flow of ideas. Hence, this form of language production was chosen to evaluate writing fluency as it is more likely to show international students' gaps in knowledge. Although grammatical competence aids in communication processes, the purpose of language study is language use (Savignon, 2018), which also involves sociolinguistic competence. The development of language proficiency should be evaluated by the learner's ability to communicate their thoughts appropriately in terms of the language context (Savignon, 2018), which is what the current analysis of the writing samples considers.

METHODS

This section outlines the methods used for this study. It includes a description of participants, delimitations, data sources, and participants' profiles. The study employs a combination of the correlational and descriptive case study methods. "Descriptive studies seek to reveal patterns and connections, in relation to theoretical constructs" as well as "assess a sample in detail and in depth" (Tobin, R. 2019, p.2), which are the primary reasons this method was chosen to explore patterns in international students' L2 writing. The writing samples were analyzed using frequency counts and content analysis; the process was informed by the quantitative analysis of the participants' responses to the language history questionnaire and willingness to communicate questionnaire. The study aims to address the following research questions:

> RQ1: To what extend does international students' self-efficacy correlate with their
> willingness to communicate?
>
> RQ2: How do international students' L2 communicative experiences influence their
> writing fluency in L2?

Participants

Twenty-two potential participants were found using voluntary convenience sampling of international students enrolled in an English for Speakers of Other Languages (ESOL) classes and English for Academic Purposes classes (EAP) at a major public university in the Southeast. Research participants were contacted via email and asked to participate in the study. Students enrolled in ESOL classes were tested to have lower English proficiency levels as opposed to EAP students.

Only twelve students were found eligible to participate in the study. The summary of the participants is provided in Table 1. Among the study participants, there were six who self-identified as men and six as women. The ages range from 18 to 37 with the majority of the participants being in their early twenties. Eight participants are enrolled in EAP and four in ESOL. Both EAP and ESOL courses are separated into levels: 1-5 with 5 being the highest for ESOL, and 6-10 with 10 being the highest for EAP.

Pseudonym	Age	Country of Origin	Gender	EAP/ESOL
Ammar	19	Saudi Arabia	Man	ESOL - 3
Bashir	19	Saudi Arabia	Man	ESOL - 5
Yasmin	23	Saudi Arabia	Woman	ESOL - 5
Joana	37	Brazil	Woman	ESOL - 5
Hakim	18	Oman	Man	EAP - 6
Ismail	19	Oman	Man	EAP - 6
Abdul	25	Saudi Arabia	Man	EAP - 6
Silvia	22	Dominican Republic	Woman	EAP - 7
Nadia	24	Saudi Arabia	Woman	EAP - 7
Maria	19	Ecuador	Woman	EAP - 8
Sofia	23	Colombia	Woman	EAP - 8
Kadir	27	Saudi Arabia	Man	EAP - 10

Table 1 Participants Profiles

Data Sources

Both qualitative and quantitative data was gathered for this study of the course of five months. The survey instrument is a modification and combination of adaptations from Li, Sepanski, and Zhao's *Language History Questionnaire* (2006) (Appendix A) and MacIntyre et

al.'s *Willingness to Communicate Questionnaire* (2001) (Appendix B). Qualitative data came from the writing samples crafted over the course of one semester in ESOL/EAP writing classes.

Language History Questionnaire. Information on personal background, language use, and language proficiency was elicited via an adaptation of Li, Sepanski, and Zhao's *Language History Questionnaire* (2006) using Qualtrics. The questionnaire is based on 41 published surveys that have been used by a number of researchers in previous studies. Validity and reliability were measured by administering the questionnaire to 40 bilingual students at the University of Richmond (Li, Sepanski & Zhao, 2006, p. 204). The questionnaire is reported to have high reliability with the split-half coefficient at .85.

The survey used for the current study includes questions about frequency of L1 and L2 use, self-efficacy, and language learning history. Self-efficacy is measured on a 0 - 22 scale with the latter being the highest result. Self-evaluation that falls in the range between 0 and 4 is considered as extremely low; 5 to 10 - low; 11 to 16 - high; 17 - 22 extremely high. Although attempts to develop generalized self-efficacy measures have been made (e.g., Sherer et al. 1982), Bandura (1997) is clear that self-efficacy should be measured with specific contexts in mind. The score is made of the self-assessment of the four domains of language proficiency (reading, writing, speaking, listening) and self-perceived intensity of a foreign accent.

Willingness to Communicate Questionnaire. A modified version of a questionnaire developed by MacIntyre et al. (2001) was used for measuring students' willingness to communicate using English. The scale contains 24 items ranging from 0 to 4 (0 = almost never willing, 1 = sometimes willing, 2 = willing half of the time, 3 = usually willing, and 4 = almost

always willing). The total scores range from 0 to 96 with 0 - 20 being extremely low; 21 to 41 -

low; 42 to 62 medium; 63 to 83 - high; 84 to 96 - extremely high.

Writing Samples. Two writing samples crafted over the course of one semester were

used to identify recurring errors and measure writing fluency. Majority of writing samples,

except for Bashir and Joana's, addressed different prompts and had different word counts. Some

of the writing samples were hand-written; others - typed. No predetermined rubric was used to

analyze the participants' writing.

Procedures

The organization hosting the international students provided time and space for the

participants to meet with the researcher and complete a questionnaire that includes

demographics, frequency of the language use, language learning background, self-efficacy, and

WTC questions. The questionnaire was administered once in April in a computer lab of the

institution the participants are enrolled in. Following the questionnaire, the participants' ESOL

and EAP writing instructors were contacted to obtain two writing samples via email. The

collection of writing samples occurred from April to August.

Data Analysis

The quantitative and qualitative data from the questionnaire was used to outline the

participants' profiles, calculate self-efficacy and willingness to communicate scales. Due to the

small sample size, Spearman nonparametric correlation test was used to identify a lack or

presence of correlation between self-efficacy and WTC as well as WTC and overall error

frequency found in the writing samples.

Two writing samples crafted by each participant over the course of one semester in an

ESOL or EAP writing course were collected and analyzed through frequency counts and content

analysis. Frequency counts were used to identify singular instances of writing errors in each participant's writing. Then they were compared across ESOL and EAP populations to identify recurring patterns. The errors were then grouped into thematic coding schemes for the content analysis. The error frequency was controlled for the word count by calculating the number of words each individual participant makes one mistake in. Responses to the survey instrument were used to contextualize the findings and address the research questions.

Delimitations

To ensure the feasibility and narrow focus of the project, several delimitations were chosen. Only participants over the age of 18 enrolled in the EAP or ESOL program in a southeastern public university were eligible to participate in the study. Out of the twenty initially recruited students, one person was below the age of 18, leading to their responses being excluded from the study.

During the analysis of the writing samples through frequency counts, errors related to punctuation, capitalization, or spelling were excluded. These elements are not used in oral speech; thus they cannot be impacted by verbal language production.

FINDINGS AND DISCUSSION

This section presents findings from the questionnaire and writing sample in relation to the research questions RQ1 and RQ2. The implications of the findings and their relevance to the previous studies are discussed. Based on the questionnaire responses, the calculated willingness to communicate score placed the participants in one of the five WTC levels: extremely low, low, medium, high, and extremely high. Although no levels were presented in the original study of MacIntyre et al. (2001) and McCroskey and Richmond' (2013) adaptation proposed only three levels (low, medium, and high), this study expanded the number of levels to five in order to reflect WTC more accurately due to the small sample size. The participants' WTC and course levels are presented in Table 2.

		Willingness to Communicate Score						
		Extremely Low	Low	Medium	High	Extremely High	% of Total	Total Number
Class Level	ESOL	Yasmin	Bashir	N/A	Ammar, Joana	N/A	33.3	4
	EAP	N/A	Ismail, Abdul	Hakim	Silvia, Nadia, Maria	Sofia	66.3	8
	% of Total	8.3	25	16.6	41.6	8.3	100	N/A
	Total Number	1	3	2	5	1	N/A	12

Table 2 Distribution of the Participants Across WTC Levels and ESOL/EAP Classes

RQ1: What is the correlation between international students' self-efficacy and willingness to communicate?

In terms of Matsuoka' (2006) conceptual model, self-efficacy is located closer to the bottom of the pyramid, being quite removed from the end goal – WTC. This factor forms the cognitive context (Layer V) for WTC. Self-efficacy scores were calculated using the responses to the questionnaire (Appendix A) by assigning points to each response and adding them up. The four "rate your reading/writing/listening/speaking proficiency" questions had 5 response options (very poor, poor, good, very good, native-like) with the possible points ranging between 0 and 4 for each question and 0 and 16 for total. A question asking to rate the strength of accent had seven answer choices: from 1 (not much of an accent) to 7 (very strong accent).

The descriptive statistics for the individual self-efficacy responses can be found in Table 3. Reading proficiency (RP) has a mean of 2.25 and standard deviation (std) of .62. Writing proficiency (WP) has the lowest mean of 1.91 and std of .28. Speaking fluency's (SF) mean is 2.25 with std of .45. Listening ability (LA) has a mean of 2.08 and std of .51. Accent strength (AS) is the only variable with a possible score of 7, instead of 4 for the rest. AS's mean is 3.66 with a std of 1.07.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
RP	12	1.00	3.00	2.2500	.62158
WP	12	1.00	2.00	1.9167	.28868
SF	12	2.00	3.00	2.2500	.45227

LA	12	1.00	3.00	2.0833	.51493
AS	12	2.00	6.00	3.6667	1.07309
Valid N (listwise)	12				

Table 3 Descriptive Statistics for the Individual Self-Efficacy Questionnaire Items (N=12)

Similarly, willingness to communicate was scored on the total scale ranging from 0 and 96 with 24 individual questions (Q1 - Q24) with possible 0 to 4 points for each question. The questions asked about one's willingness to communicate both inside and outside the classroom in different social situations. The descriptive statistics for the individual WTC responses can be found in Table 4. Q3 "You are confused about a task you must complete, how willing are you to ask for instructions/clarification?" and Q23 "Take directions from an English speaker" have the highest mean of 3 with standard deviations of 1 and 1.09 respectively. Q17 "Write a newspaper article has the lowest mean" of 1.5 with a std of 1.44. Based on this result, it is possible to assume that the participants are more willing to engage in oral rather than written discourse.

For decades, there has been a debate between the roles of language input and output in L2 learning. After the publication of the fundamental works on input (Krashen, 1985; Ellis, 1985; Schwartz, 1993), the importance of comprehensible input is now widely recognized. Swain (1995), however, has challenged Krashen's uncompromising theory with her Comprehensible Output hypothesis. The hypothesis claims that under certain circumstances, speaking and writing constitute a part of the language learning. Based on the participants' responses, the average means for the four surveyed categories are: speaking 2.59; reading 2.38; writing 2.10; comprehension 2.78. Across all participants, comprehension has the highest WTC mean, and

writing - the lowest. The average WTC input is 2.58, which is higher that it for output - 2.34. In terms of the CO hypothesis that views output as a part of learning, not a product of learning, the 9.7% difference between input and output deserves attention. Lower willingness to communicate in circumstances that constitute learning opportunities through language output may lead to students missing out on chances to develop L2 skills compared to the students who equally engage in input and output in L2.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	12	1.00	4.00	2.4167	.99620
Q2	12	1.00	4.00	2.8333	1.11464
Q3	12	1.00	4.00	3.0000	1.00000
Q4	12	1.00	4.00	2.8333	.93744
Q5	12	.00	4.00	1.8182	1.40130
Q6	12	.00	4.00	2.4167	1.31137
Q7	12	1.00	4.00	2.9091	.94388
Q8	12	1.00	4.00	2.4167	1.31137
Q9	12	1.00	4.00	2.8182	1.07872
Q10	12	1.00	4.00	2.4167	.99620

Q11	12	.00	4.00	1.9167	1.67649
Q12	12	.00	4.00	1.8333	1.40346
Q13	12	.00	4.00	2.4167	1.37895
Q14	12	.00	4.00	1.7500	1.28806
Q15	12	1.00	4.00	2.3333	1.15470
Q16	12	1.00	4.00	2.7500	1.05529
Q17	12	.00	4.00	1.5000	1.44600
Q18	12	.00	4.00	2.1667	1.52753
Q19	12	.00	4.00	2.0833	1.62135
Q20	12	1.00	4.00	2.9091	1.13618
Q21	12	1.00	4.00	2.5455	1.12815
Q22	12	.00	4.00	2.5833	1.37895
Q23	12	1.00	4.00	3.0000	1.09545
Q24	12	.00	4.00	2.9167	1.50504
Valid N (listwise)	12				

Table 4 Descriptive Statistics for the WTC Questionnaire Items (N= 12)

The summary of the participants' self-efficacy scores, WTC, and class level are presented in Table 5. Majority of ESOL and EAP participants (66.6%) had medium self-efficacy rating.

Yasmin (ESOL) and Ismail (EAP) have low scores, and Sofia (EAP) has a high score. The only

participant with the extremely low WTC is Yasmin, an ESOL student. Bashir (ESOL), Ismail

(EAP), and Abdul (EAP) are on the low WTC level. Two EAP students, Hakim and Kadir, have

medium WTC scores. High WTC level has the most participants (41.6%) with Joana (ESOL),

Nadia (EAP), Maria (EAP), Silvia (EAP), and Ammar (EAP) scoring in that category. Sofia

(EAP) is the only participant with an extremely high WTC score.

Pseudonym	Class Level	Self-Efficacy	WTC
Yasmin	ESOL	9	20
Ismail	EAP	9	37
Hakim	EAP	10	61
Bashir	ESOL	11	38
Abdul	EAP	11	37
Joana	ESOL	11	79
Ammar	ESOL	12	80
Silvia	EAP	13	74
Nadia	EAP	13	66
Maria	EAP	13	71
Sofia	EAP	16	87
Kadir	EAP	14	47

Table 5 Participants' Class Levels, Self-Efficacy, and WTC

For further analysis, Spearman nonparametric correlation test was run in SPSS. This measure was used due to the number of participants being less than 20 which failed the assumption necessary for the Pearson's correlation. The two variables analyzed were self-efficacy and willingness to communicate. The correlation coefficient r_s=.646 (Table 6) suggests a moderate-high association between self-efficacy and willingness to communicate among the surveyed participants. Based on the degree of correlation between the two variables, one can conclude that higher levels of self-efficacy are associated with the higher willingness to communicate in L2.

Correlations

			Self Efficacy	WTC
Spearman's rho	Self Efficacy	Correlation Coefficient	1.000	.646[*]
		Sig. (2-tailed)	.	.023
		N	12	12
	WTC	Correlation Coefficient	.646[*]	1.000
		Sig. (2-tailed)	.023	.
		N	12	12

Table 6 Spearman Nonparametric Correlation Coefficient for Self-Efficacy and WTC Variable

Self-Efficacy as a judgment of individuals' capabilities in achieving something was used in Matsuoka's (2006) proposed model. The moderate positive correlation between self-efficacy and willingness to communicate found in the current study supports the proposed model. International students who participated in this study and had higher self-efficacy also had higher WTC in L2. This result also aligns with the claims of Bandura (1997), who suggested that self-efficacy is related to communicative choices.

RQ2: How do international students' L2 communicative experiences influence their writing fluency in L2?

Brown (2007) argues that production of a coherent and fluent text is the most challenging activity for the language learners. Therefore, for as long as students are engaging in the language learning process, they will be producing errors. This study analyzes writing as a phenomenon in relation to WTC. After a close reading of the writing samples, writing errors and their frequency were identified and grouped into thematic coding schemes. No a priori themes were used in this study. Table 7 shows the coding template and frequency count for each theme. During the close reading of the writing samples, six themes were identified: conjugation, declension, syntax, lexis, clarity, and organization. All participants' writing contained conjugation, syntax, and lexis themes at least ones. The most frequently recurring theme is lexis, followed by conjugation and syntax. The found results align with Otoshi (2005), Chen (2006), Phuket and Othman (2015) findings of the most prevalent writing errors to be the ones related to lexis and conjugation.

Theme	Sub-Theme	Number of Participants' Writing Containing the Theme One or More Times (%)	Frequency Count	
			ESOL (1 per N words)	EAP (1 per N words)
Conjugation	● Present tense conjugation ● Compound predicate ● Past tense conjugation ● Infinitive ● Gerund	12 (100)	17 (82)	69 (108.57)

Declension	• Number • Case	10 (83.3)	5 (279.2)	34 (220.35)
Syntax	• Fragment sentence • Run-on sentence • Comma splice • Word order in questions	12 (100)	12 (116.3)	57 (31.43)
Lexis	Choice of: • Noun • Verb • Pronoun • Preposition • Article • Conjunction Missing: • Article • Preposition	12 (100)	42 (33.38)	189 (39.64)
Clarity	• Redundancy • Readability	7 (58.3)	5 (279.2)	26 (288.15)
Organization	• Coherence within a paragraph • Coherence across the text	5 (41.6)	1 (1396)	15 (499.46)

Table 7 Coding Template and Frequency Count

Because the length of each participants' writing sample varied, the total error frequency was divided by the number of total written words for each participant, resulting in a 1 mistake per N words ratio. The higher the N value the less frequent one makes mistakes in writing. The summary of the error to length ratios for each participant are shown in Table 8.

Pseudonym	Total Number of Errors	Total Word Count in the Writing Samples	Ratio (1 mistake per N words)
Ammar	16	207	1 per 16.87
Bashir	41	451	1 per 11
Yasmin	28	210	1 per 7.5
Joana	37	528	1 per 14.27
Hakim	40	556	1 per 13.9
Ismail	49	720	1 per 14.69
Abdul	27	360	1 per 13.3
Silvia	40	508	1 per 12.7
Nadia	47	812	1 per 17.27
Maria	57	1100	1 per 19.29
Sofia	85	2007	1 per 23.61
Kadir	70	1435	1 per 20.5

Table 8 Participants' Errors, Writing Sample Word Count, and the Ratio of the Two

The themes and their frequencies were compared across participants' writing to address the research question and assess the correlation between willingness to communicate and writing fluency. The error frequencies controlled for the length of writing were plotted against WTC scores (Chart 1). Spearman nonparametric correlation test was run in SPSS and resulted in $r_s=.536$ which suggests a moderate correlation between the two analyzed variables. Based on this

result, one may conclude a positive correlation between the surveyed international students'

willingness to communicate and writing fluency. A participant's willingness to communicate in

English and integrate the language in everyday life is related to less writing errors overall.

Speaking WTC scores have weaker correlation with the writing errors r_s=.232 (Chart 2).

The results has weak support for Mendoza's (2013), Kroll's (1981), and Swain's (1995) claims

regarding the relationship between oral output and writing fluency. Matsuoka (2006) concluded

that English proficiency and L2 WTC had a positive correlation of r = .33. The English language

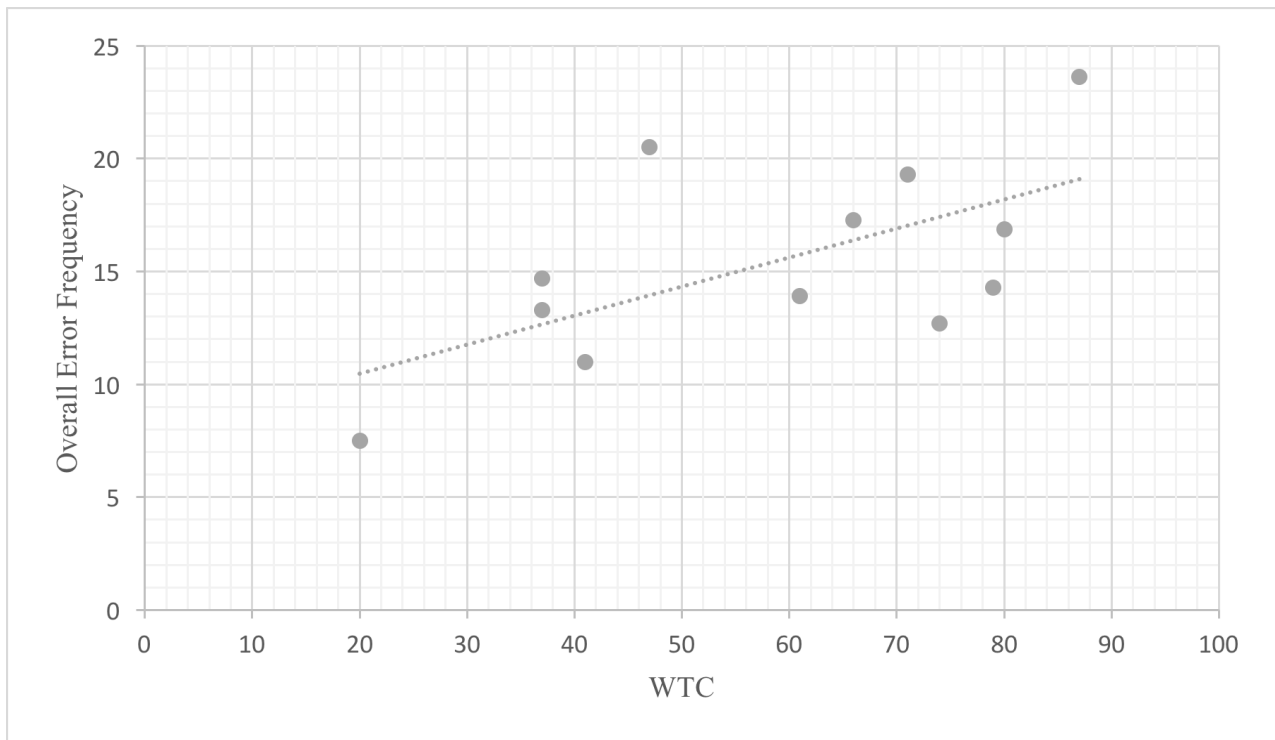proficiency was not a statistically significant predictor of WTC, however.

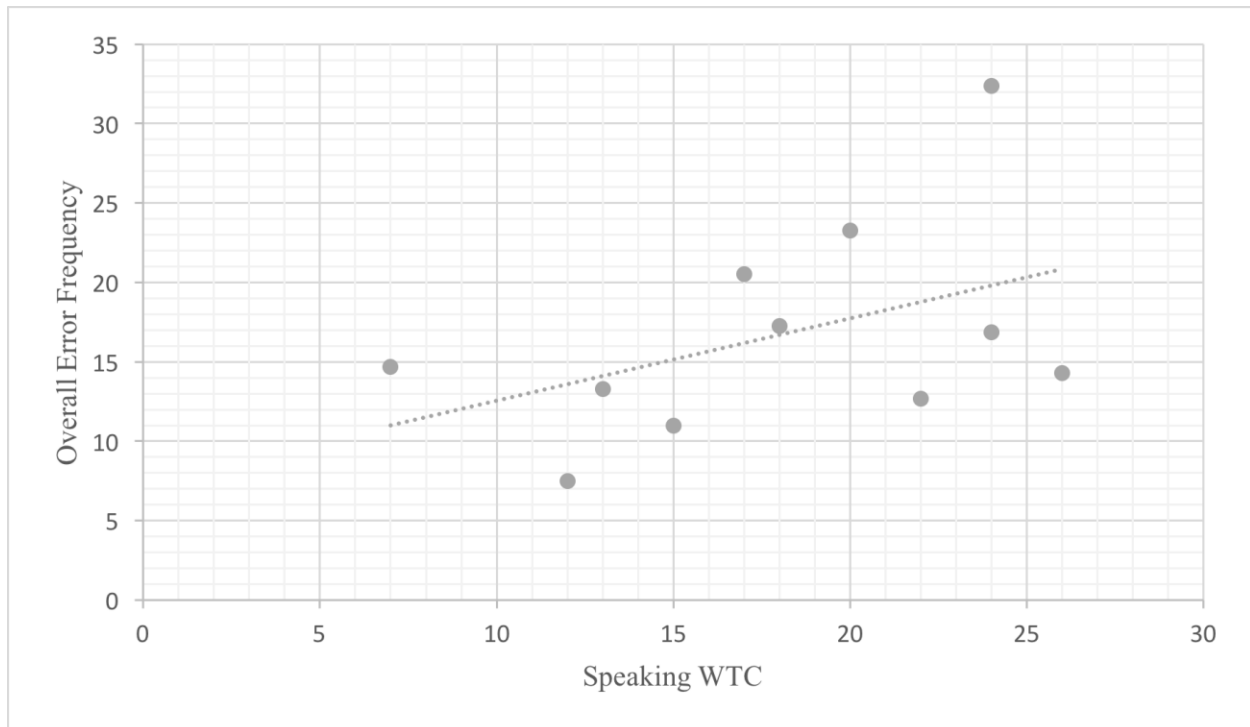*Figure 3 Scatter Plot with Overall WTC and Error Frequency as Variables*

Figure 4 Scatter Plot with Speaking WTC and Error Frequency as Variables

While the writing samples in relation to WTC were looked at across all participants, this study also considers each individual case and the data from the questionnaire that informs it. The individual profiles and writing analysis, including an overview of their language learning background, self-efficacy, current language use, willingness to communicate, and thematic coding schemes are outlined. Language learning background serves as the contextual factor for the analysis of variables. The participants' profiles are grouped based on their willingness to communicate level. All examples of student writing are presented with the original spelling, grammar, and punctuation.

Extremely Low WTC. *Yasmin* is the only participant who scored extremely low on the WTC questionnaire. At the age of 23, she spent 8 months in the United States after moving from Saudi Arabia. Yasmin started learning English when she was 13, which is the mean starting age

among the participants. Her language learning process was a combination of formal instruction and interaction with English speakers. Yasmin is in ESOL - 5 with a medium self-efficacy score of 9. 75% of the time on an average day, she uses Arabic, with the exception of school and work-related purposes, where Yasmin utilizes mostly English. Willingness to communicate of this participants is extremely low - 20 out of 96. In her 210 word sample, 28 errors were identified resulting in 1 mistake in 7.5 words ratio, which is the most frequent among all participants. Yasmin's main area of difficulty is lexis, with inappropriate article use and absence of articles being the main issue (i.e. "To sum up, healthy living make body feel better."). Coming from a background of a language that does not have indefinite articles and uses definite articles in a different manner compared to English, it is not surprising that the participant struggles with this part of speech. Additionally, her predominant use of L1 may inhibit Yasmin's ability to identify her error.

Low WTC. Bashir, Ismail, and Abdul were the three participants with low WTC scores. All participants in low WTC group have a large number of lexis errors. The two main types of lexis-related errors are prepositions and articles.

Bashir is a 19-year-old student from Saudi Arabia. He has been in the United States for 6 months, and, at the time of the survey, enrolled in ESOL - 5 course. Bashir started learning English at the age of 3 mainly through formal classroom instruction. His language self-efficacy ranks at 11 out of 22, which is medium. Bashir indicated that he mostly uses Arabic to speak throughout the day; though, he tends to watch TV and complete schoolwork using L2. The participant's Willingness to communicate is low - 38 out of 96 on the WTC scale. Bashir's error frequency is 1 mistake in 11 words. His area of difficulty in writing was lexis, followed by

28

conjugation. Among lexis-related mistakes, the participants had most errors with using appropriate prepositions and articles. In the sentence "In conclusion I wrote about how to make a tasty tea, it's very easy to make a tasty tea if you followin that easiar steps" has examples of article and pronoun use errors, a comma splice, and redundancy. Similarly, another example from a different essay "In conclusion, a healthy life is to live with a great health that make you life a happy life without disadvantages." contains article misuse and redundancy. It also has examples of conjugation and clarity issues.

Ismail is another EAP - 6 student from Oman. He is 19 years old and came to the United States 4 months prior to the questionnaire. He started learning English early in his life - when he was 6 - through formal instruction. Ismail's self-efficacy is medium, except for the foreign accent that he evaluated low, which brought the overall rating to 9 out of 22. He utilizes Arabic considerably more than English for all purposes indicated in the questionnaire. Ismail is among the participants with low WTC - 37 out of 96. The participant wrote 720 words with 49 indicated mistakes. His error frequency, therefore, is 1 mistake in 14.69 words, which is the smallest in this WTC group. Ismail had 13 lexis errors, making it the category with the most mistakes. In his essay, the participant writes: "I learned how to cook from my mother but the different between me and her that I chose my special speces and I did some step by my way." This sentence exemplifies some of recurring lexis errors, such as an incorrect part of speech and error in preposition choice. It is also missing a verb and has an unsuitable declension of "steps." Overall, the sentence has issues with word choice.

Abdul is a 25-year-old participant from Saudi Arabia, studying in EAP - 6. Abdul spent 18 months in the United States. Interestingly, he indicated that his English language learning

began at the age of 24 through a mixture of classroom instruction and interaction with English speakers. His self-efficacy is average - 11 out of 22. Abdul indicated that he utilizes English and Arabic equally throughout the day when performing different activities. Although he claims to be using English frequently. Abdul's WTC is low-scored at 37. The participant wrote 360 words in his essays and made 27 errors that fall into one of the thematic coding schemes. His error frequency is 1 mistake in 13.3 words. Aside from the lexis errors, Abdul's writing contained 7 conjugation mistakes, making them the two most prevalent error-dense categories. In one of his essays, the participant writes: "First of all, I started to looking to appropriate school which might evolve my English." The sentence contains errors related to present tense conjugation, pronoun choice, article use, auxiliary verb choice, and synonym misuse. His two texts, the process and definition paragraphs, differ significantly in the number of mistakes. They were submitted a month from each other. The second work has fewer errors, while the overall organization of ideas is more cohesive. Multiple factors can contribute to such inconsistency: perhaps the student was less interested in the first topic or external factors were affecting the quality of his writing. The change could be caused by the improved knowledge of the participant; though, it is unlikely considering the short interval between the two submissions.

Medium WTC. Two EAP students were identified to have a medium level of WTC - Hakim and Kadir.

Hakim is an 18-year-old student from Oman, who spent 4 months in the United States when the questionnaire was administered. He started learning English at the age of 7 through formal classroom instruction. He is an EAP - 6 student with self-efficacy of 10, which is medium. He mostly uses Arabic, including for work and schoolwork purposes. The only

exception is reading news and magazines, for which Hakim prefers sources in English. His WTC is medium (61 out of 96). In Hakim's 912 word writing samples, 39 errors were identified. The most recurring theme in the participant's writing is lexis (20 instances). The sentence "As well as providing enjoyment, shopping in the store may improve your communication skills by attaching with sales staff or negotiation price" has word choice, article use, and part of speech choice issues. Another sentence "It is a fact that bad habits can transform success to something impossible in some cases" has overall clarity issues and pronoun choice errors. On average, Hakim makes 1 mistake in 13.9 words. The student's writing is logical and organized. A lot of his sentences are well-written and error-free; however, some sentences, such as the ones provided above, have a high error content.

Kadir is the only EAP - 10 student who participated in the study. He came to the United States from Saudi Arabia one year ago. Kadir is 27; he began his English language learning process at the age of 19 through classroom instruction and interaction with English speakers. The participant's self-efficacy score is medium at 14. He indicated more frequent English use compared to Arabic across all provided situations. Based on the participant's responses, his WTC ranks at 47, a medium score. Kadir is the only eligible participant who created one writing project in his course resulting in the participant having one writing sample. The sample has a lower total word count than other writing samples, yet it is the longest single text analyzed in this study. In total, the participant composed 1435 words. In his writing, 70 mistakes, or 1 mistake per 20.5 words, were identified. Lexis errors outnumbered other mistakes, especially the 25 instances of misused or missing articles. "The risk is existing in both long-term and short-term investments where the inflation can be concern, especially with securities like short term bonds

and it is not always possible to gain profit" shows the article errors that are made throughout the essay.

Kadir's writing issue that did not occur in Hakim's is the lack of format consistency. For example, when discussing different types of investments, Kadir presents some of the individual types in separate sentences, which others are combined in one. A potential contributing factor is the length of Kadir's writing and the number of details covered in his writing. Another difference is that Kadir's paper uses outside sources, whereas Hakim's essays express his opinions. The significantly different types of assignments make the comparison of the participants' writing more challenging across the medium WTC level.

High WTC. 41.6% of the participants have high willingness to communicate in L2. Ammar, Joana, Silvia, Nadia, and Maria scored on this level. Two of theme, Ammar and Joana, are ESOL students, and the rest - Silvia, Nadia, and Maria - are in EAP classes.

Ammar is one of the Saudi Arabian students studying English as a second language. Among the participants, he is enrolled in the lowest level course - ESOL 3. Ammar is 19, and he arrived to the United States 6 months prior to when the questionnaire was administered. He indicated his native language to be Chinese, though it is unclear if the term "native language" was understood and whether it was the only language Ammar spoke growing up. This doubt comes from the lower course level, the response to one of the questions - "Age at which you started to learn your second language" - to which Ammar responded "english" (original capitalization), and his indication that he mainly speaks Arabic at home. The participant has a medium self-efficacy score (12 out of 22). He has a high willingness to communicate in English at 80 out of 96. Nonetheless, he utilizes his L1 more frequently than English. Ammar's writing

samples are the shortest - 207 words. 16 errors were detected in his writing, with the majority of mistakes being in lexis and syntax areas. "I like summer because it is make me a good feeling" and "In April 25 2016 my father came from a nice trip. After a day he came back from his trip. He came to me and said "choose which city do you want to go to" are examples of lexis and syntax errors found in Ammar's writing. The participant is in the lowest level course, though his WTC is high. Interestingly, his writing has more of narrative tone and a large number of details compared to other participants from ESOL classes.

Joana is the oldest and only Brazilian participants. At 37, she started learning English at 21, which is later than other participants. Her English language learning was primarily coming from her husband, an English language teacher, until she arrived in the United States 7 months ago. Being an ESOL - 5 student, Joana rates her self-efficacy as 11 out of 22, which is a medium score. While Joana uses some Portuguese, she mostly uses English throughout the day. The participant has a high willingness to communicate: she scored 79 out of 96. She composed 528 words with 37 identified error themes. Her error frequency is 1 mistake in 14.27 words. Lexis errors were the most common type of mistakes with 16 instances. In the sentence "Cut the vegetables, put oil, garlic, and onions in a pan to frie after it to be brown, you can add salt and Tomatos" the choice of "it to be brown" instead of "it turns brown" is a kind of word choice error that is present throughout the essays. Unlike Ammar's writing, Joana's texts are more concise and less detailed. She does not logically conclude her writing.

Silvia is a 22-year-old EAP - 7 student from Dominican Republic. She started learning English when she was 8 through classroom instruction and interaction with English speakers. Silvia had lived in the United States for 9 months at the time she completed the questionnaire.

Silvia's self-efficacy score is 13, which falls in the medium range. The participants indicated that she uses English and Spanish mostly equally with English being slightly more common for watching TV and reading the news. Silvia's WTC is high at 74 out of 96. She wrote 508 words with 40 identified errors. The participant has 1 mistake in 12.7 words, which is more often than Ammar and Joana. She made 19 lexis errors with the most common ones being misused/missing article and misused preposition. A sentence with such errors is "The Instruments of both type of the music also have almost the same things with a little bit at differences." Silvia's writing is characterized by the personal connections she makes. The participants addresses the topics not only through her opinions but also through her lived experiences.

Nadia is a 24-year-old Saudi Arabian woman studying in EAP - 7. She started learning English when she was 13 years of age both by interacting with English speakers and receiving formal classroom education. Nadia arrived to the United States 5 months prior to completing the questionnaire. The participant evaluated her self-efficacy as 13 - a medium score. Nadia indicated that, on an average day, she uses Arabic and English equally, though English is used more for some activities, like watching TV and completing schoolwork. She has a high willingness to communicate with the rating of 66. Nadia's error frequency is 1 mistake in 17.27 words. In total, she wrote 812 words that included 47 errors that fall into one of the coding schemes. Nadia has the most conjugation errors among the high WTC participants. Her lexis errors mostly consist of the incorrect preposition use. For example, this sentence "As a beginning, talking about what each one of the provided to me, since the day I borned, is going to coast me alot of time and coast me dozens of papers" show a wrong choice of a preposition, whereas "They are competing each other at who the most effictive person who affects my life"

has an omission of a preposition. Nadia's writing tends to be more philosophical. She incorporates such ideas as "Physical existance is important but the most important thing is to have people who are exist emotionally." Though the sentence lacks clarity, her attempt to incorporate abstract ideas is evident.

Maria came from Ecuador two years ago, and now is an EAP - 8 student. At the age of 19, she has been learning English for three years. The main source of the L2 acquisition for the participant has been formal classroom instruction. Her self-efficacy rates is medium at 13. Although Maria estimates to be using Spanish an English equally, specific activities, including watching TV, reading news, and completing homework are mostly done in English. The participant's willingness to communicate rate is high at 71. Maria composed essays with the most words (1100) among high WTC participants and has the lowest error frequency of 1 mistake in 19.29 words in her WTC group. Among the 57 errors that she made, the majority are lexis-related. An example of such errors can be found in the following sentence: "Have you ever heard or danced any type of Latin music before?" Nadia's essays contain a recurring error that was not found in other participants' writing. Conjunctions that start a sentence are followed by a comma and present tense"to be," such as seen in this sentence "Also, is relate between psychology and justice system because they involve understanding and fundamental legal principles." A possible explanation to such error is the participant misheard a sentence constructions used by other speakers and started applying it in her writing or it is a mistake that has been fossilizing. Maria might also be using a translating software. In Spanish, sometimes "it" can be part of the suffix of a conjugated verb, the software might not detect it.

In high WTC group, both of the ESOL participants started their writing by saying what the essay is about, such as seen here: "Today I will be talking about my amazing place I visited." Other participants do not use such constructions and open their essays with the background information related to their topics. Among the EAP students, there is a trend for the longer essays to have smaller error frequency (Chart 4). Because of the small sample size (N=3), it is unclear if the trend is significant.

Extremely High WTC. In this WTC level, there is only one participant.

Sofia is an EAP - 8 student of Colombian origin. She started learning English at the age of 14 and spent 10 months in the United States continuing her studies through classroom instruction and interaction with English speakers. Sofia is the only participant, who indicated that music and movies supported the development of her English skills. Her self-efficacy ranks at 16 - the highest among the participants. The participant indicated that she uses English more often than Spanish for all purposes of communication. Sofia also has the highest Willingness to Communicate score of 87. She composed the longest texts overall with total of 2007 words, while having the lowest error frequency of 1 mistake in 23.61 words. Her main error area is conjugation, followed by preposition error in the lexis theme. The most prevalent mistake is with the present tense 3rd person conjugation: "Mosco, also describe with an example the dirty game of social networks, referring to the case were Facebook in alliance with Cambridge analytical, used information gathered about subscribers, and violated their privacy to sway in the USA presidential elections in 2016." One of Sofia's essays describe an article about the influence of social media on the democratic process. It is the only writing sample that has the analysis of an outside source, which might contribute to the low error count.
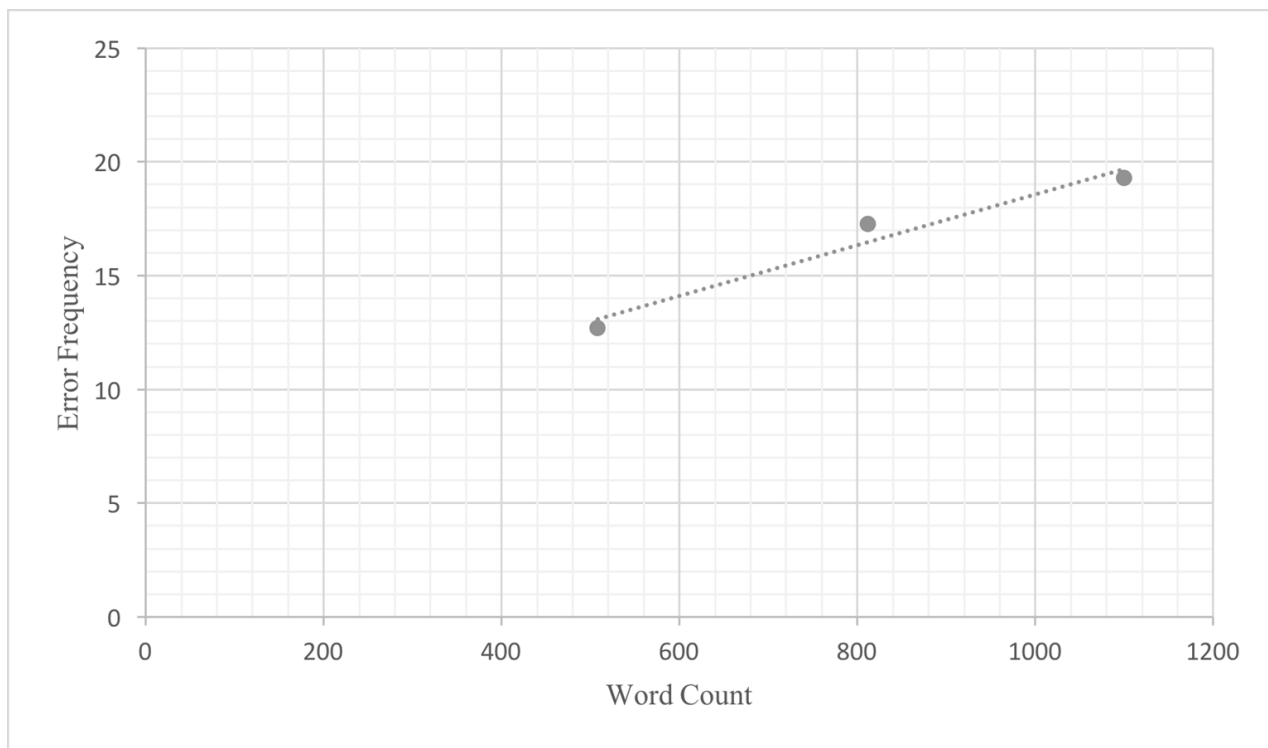
Figure 5 Scatter Plot with Word Count and Error Frequency in High WTC among EAP Students (N=3)

Imran and Ghani (2014) found a strong correlation between students' WTC and language proficiency. The current results support their findings. Some of the participants in this study, like Joana and Ammar, had a high level of WTC, even though they were in ESOL classes. Regardless of the class level and writing errors, the participants with higher WTC perhaps are less afraid of entering discourse and not using the language perfectly. They can be more comfortable with making mistakes. Although this attitude could serve as learning opportunities according to the Comprehensible Output hypothesis, it can also inhibit students' learning efforts if they do not consider mistakes an issue at all. On the contrary, Ismail and Abdul, both EAP students, scored low on the WTC questionnaire. In contrast, individuals with higher English proficiency may be more concerned about the accuracy and quality of their language use, resulting in lower WTC.

The trend found among high WTC group of the higher word count being correlated with the lower error frequency was tested using the data from all participants. Word count was plotted against error frequency (Chart 5) and the values were analyzed in SPSS using Spearman correlation coefficient. The results show a moderate correlation r_s=.655 between the two variables. This correlation might suggest that students with a higher English proficiency tend to write longer texts. Such notion exists in the second language instruction: the more a student knows L2, the longer and more complex the writing assignments are.
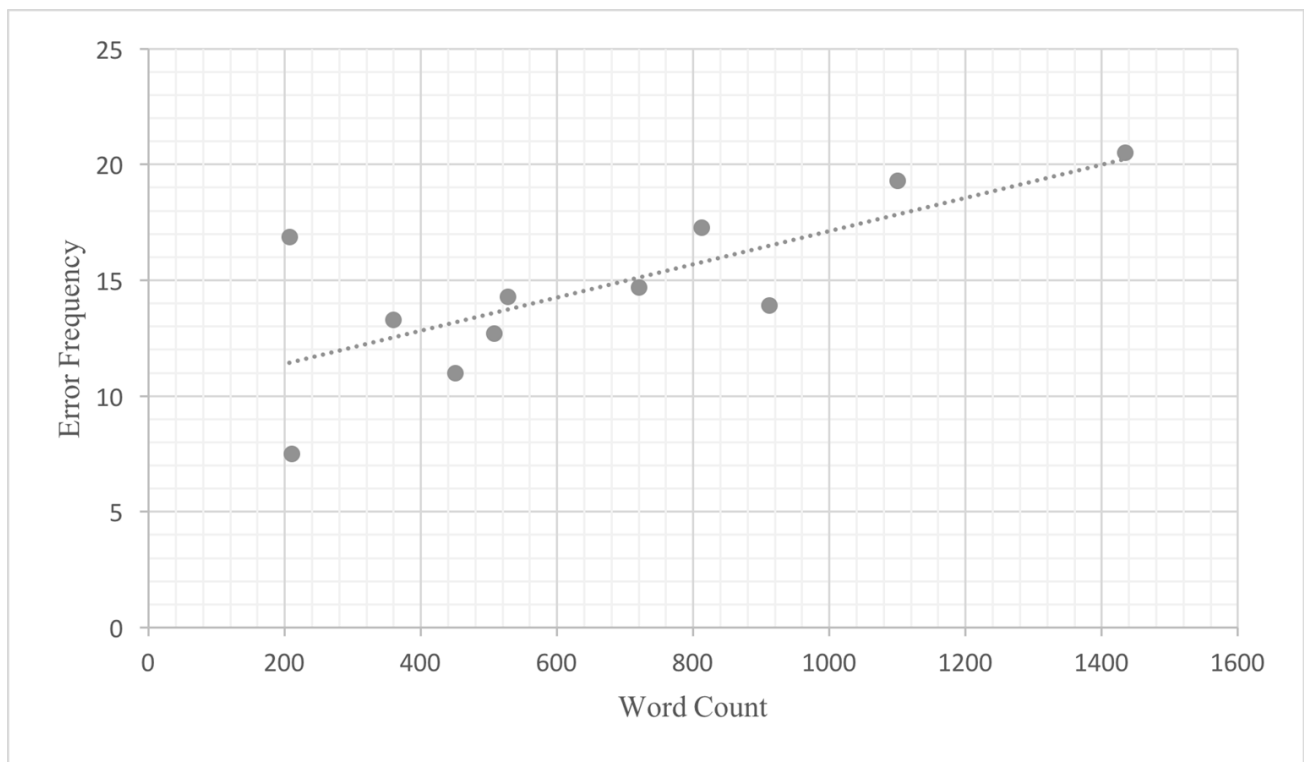
Figure 6 Scatter Plot with Word Count and Error Frequency in High WTC among EAP Students (N=12)

Correlations

			WordCount	ErrorFrequency
Spearman's rho	WordCount	Correlation Coefficient	1.000	.655[*]
		Sig. (2-tailed)	.	.029
		N	11	11
	ErrorFrequency	Correlation Coefficient	.655[*]	1.000
		Sig. (2-tailed)	.029	.
		N	11	11

Table 9 Spearman Nonparametric Correlation Coefficient for Word Count and Error Frequency

CONCLUSIONS

In the field of the second language learning, only few studies focus on the relationship of international students' communicative experiences and their writing fluency. Furthermore, case studies in this research area are even more rare, even though they provide an opportunity to connect theoretical constructs through the detailed analysis that often leads to the discovery of new trends. This study was carried out in order to find out how L2 willingness to communicate relates to the writing fluency of the international students studying in ESOL and EAP programs. This was accomplished by investigating how self-efficacy related to willingness to communicate and how WTC and writing fluency relate to one another.

First, international students' responses to the questionnaire were used to rate their self-efficacy and willingness to communicate. The two variables were analyzed via Spearman nonparametric correlation, which was found to be positive and moderate (r_s=.646). Because L2 use is the result of WTC, the findings align with the findings surrounding self-efficacy and communicative choices (McCroskey, 1997; McCroskey & McCroskey, 1988; Bandura, 1997; Gaffney, 2011).

Second, international students' writing fluency was determined based on the writing samples. The writing errors were expressed as frequencies and analyzed in SPSS for correlation with the individuals' willingness to communicate. The overall WTC was found to be moderately correlated with WTC r_s=.536 as opposed to the oral willingness to communicate that has a low correlation of r_s=.232. The results have weak support for Mendoza's (2013), Kroll's (1981), and Swain's (1995) claims regarding the relationship between oral output and writing fluency. Nonetheless, the overall WTC correlation coefficient matches Matsuoka's (2006) conclusion that

English proficiency and L2 WTC are positively correlated. During the data analysis, another trend emerged: students with a higher English proficiency tend to write longer texts. To increase the generalizability of the findings, increasing the number of the analyze writing samples and conducting purposeful sampling are advised.

To increase the generalizability, a mixed method research study with a larger representative sample is suggested. Due to the limitations related to recruitment, this study mostly focuses on writing samples that were crafted by international students from Saudi Arabia. Another suggestion for future research is to incorporate additional writing samples that would allow more accurate measurement of writing fluency as well as utilize other data sources, such as interviews, that could increase the validity of the current findings. Furthermore, regression analysis can be conducted to identify whether WTC, self-efficacy, and word count are predictors of writing fluency.

Limitations

The study faced a number of challenges on its way with the main one being related to data collection. Although the Institutional Review Board exempted the study from regulation prior to spring 2019, when the data collection process was scheduled to begin, and clear objectives with the survey instrument were provided to three data collection sites, the implementation of the questionnaire requests were denied without further explanations. This lack of cooperation is the first limitation that led to the inability to employ purposive sampling and recruit the initially planned number of participants.

The second limitation of this study stems from the difficulty of measuring human mind and behavior through a questionnaire. The self-efficacy and willingness to communicate scores

were based on self-report questionnaire data. Like in the case of Ammar, who likely misunderstood some of the questions from the questionnaire, using other sources of qualitative data would be beneficial. Although questionnaires are not completely unreliable, interviews would have expanded the available qualitative data and strengthened the present study.

The third limitation concerns the number of writing samples used for gauging writing fluency. The challenges related to administering the questionnaire and recruiting participants also extended to accessing writing samples. Therefore, the researcher was only able to collect two writing samples written in the same semester for analysis. Additionally, four participants did not provide the ID given during the data collection process that were needed to obtain writing samples from their instructors. This issue stemmed from the fact that the questionnaire did not include any identifiable information and the volunteers at the data collection site did not verify the accuracy of the input information. Moreover, one instructor reported not having writing samples for two eligible participants. Ideally, a study with such focus would analyze a larger body of writing due to a variety of variables that may influence a single essay.

APPENDIX A

Adaptation of the Language History Questionnaire

PART A

1. Age (in years):

2. Gender:

3. Country of origin:

4. How long have you lived in the United States?

5. What is your native language? (If you grew up with more than one language, please specify)

6. Age at which you started to learn your second language:

7. How did you learn your second language up to this point? (check all that apply)

 Mainly through formal classroom instruction _____

 Mainly through interacting with people _____

 A mixture of both _____

 Other (specify) _____

8. Rate your ability on the following aspects in English. Please rate according to the following scale (write down the number in the table):

1 __ very poor ____

2 __ poor ____

3 __ good ____

4 __ very good ____

5 __ native-like____

Reading proficiency

Writing proficiency

Speaking fluency

Listening ability

9. Do you have a foreign accent in English? If so, please rate the strength of your accent on a

scale from 1 (not much of an accent) to 7 (very strong accent).

PART B

10. What language do you usually speak to your mother at home? (If not applicable for any reason, write N/A)

11. What language do you usually speak to your father at home? (If not applicable for any reason, write N/A)

12. What languages can your parents speak fluently? (If not applicable for any reason, write N/A)

 Mother: _____

 Father: _____

13. What language or languages do your parents usually speak to each other at home? (If not applicable for any reason, write N/A)

14. Write down the name of the language in which you received instruction in school, for each schooling level:

 Primary/Elementary School _____

 Secondary/Middle School _____

 High School _____

 College/University _____

15. Estimate, in terms of percentages, how often you use your native language and other languages per day (in all daily activities combined):

 Native language _____%

 Second language _____%

 Other languages _____% (specify: _____)

 (Total should equal 100%)

16. Estimate, in terms of hours per day, how often you watch TV or listen to radio in your native language and other languages per day.

 Native language _____ (hrs)

 Second language _____ (hrs)

 Other languages _____ (specify the languages and hrs)

17. Estimate, in terms of hours per day, how often you read newspapers, magazines, and other general reading materials in your native language and other languages per day.

 Native language _____ (hrs)

 Second language _____ (hrs)

 Other languages _____ (specify the languages and hrs)

18. Estimate, in terms of hours per day, how often you use your native language and other languages per day for work or study related activities (e.g., going to classes, writing papers, talking to colleagues, classmates, or peers).

 Native language _____ (hrs)

 Second language _____ (hrs)

 Other languages _____ (specify the languages and hrs)

19. In which languages do you usually:

 Add, multiply, and do simple arithmetic? _____

 Dream? _____

 Express anger or affection? _____

20. When you are speaking, do you ever mix words or sentences from the two or more languages you know?

APPENDIX B

Adaptation of the Willingness to Communicate Questionnaire

Directions: This questionnaire is composed of statements concerning your feelings about communication with other people, in English. Please indicate in the space provided the frequency of time you choose to speak in English in each situation.

If you are almost never willing to speak English, write 1. If you are willing sometimes, write 2 or 3. If you are willing most of the time, write 4 or 5. 1 = Almost never willing 2 = Sometimes willing 3 = Willing half of the time 4 = Usually willing 5 = Almost always willing

Speaking outside class, in English

1. Speaking in a group about your summer vacation. ……

2. A stranger enters the room you are in, how willing would you be to have a conversation if he talked to you first? ……

3. You are confused about a task you must complete, how willing are you to ask for instructions/clarification? ……

4. Talking to a friend while waiting in line. ……

5. How willing would you be to be an actor in a play? ……

6. Describe the rules of your favorite game. ……

7. Play a game in English. ……

Reading outside class, in English

1. Read a novel. ……

2. Read an article in a paper. ……

3. Read an advertisement in the paper to find a good bicycle you can buy. ……

4. Read reviews for popular movies. ……

Writing outside class, in English

1. Write an advertisement to sell an old bike. ……

2. Write down the instructions for your favorite hobby. ……

3. Write a report on your favorite animal and its habits. ……

4. Write a story. ……

5. Write a letter to a friend. ……

6. Write a newspaper article. ……

7. Write the answers to a "fun" quiz from a magazine. ……

8. Write down a list of things you must do tomorrow. ……

Comprehension outside class

1. Listen to instructions and complete a task. ……

2. Bake a cake if instructions are in English. ……

3. Fill out an application form. ……

4. Take directions from an English speaker. ……

5. Watch a movie in English. ……

APPENDIX C

IRB Letter of Approval

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Determination of Exempt Human Research

From: **UCF Institutional Review Board #1**
          FWA00000351, IRB00001138

To: **Elsie L. Olan** and Co-PIs: **Alla V. Kourova, Michelle Verbitskaya, Shiva Jahani**

Date: **December 13, 2018**

Dear Researcher:

On 12/13/2018, the IRB reviewed the following activity as human participant research that is exempt from regulation:

Type of Review:	Exempt Determination
Project Title:	The Effects of International Students' Willingness to Communicate on the Development of Writing in L2
Investigator:	Elsie L Olan
IRB Number:	SBE-18-14597
Funding Agency:	
Grant Title:	
Research ID:	N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

This letter is signed by:

Signature applied by Gillian Morien on 12/13/2018 10:31:30 AM EST

Designated Reviewer

REFERENCES

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Macmillan.

Brown, H. (2007). Principles of language learning and teaching. New York: Pearson

Chen, L., (2006). The effect of the use of L1 in a multimedia tutorial on grammar learning: an
error analysis of Taiwanese beginning EFL learners' English essays. *The Asian EFL
Journal Quarterly*, 8(2), 76-110

DeKeyser, R. M. (1997). Beyond explicit rule learning: Automatizing second language
morphosyntax. *Studies in Second Language Acquisition*, *19*, 195–221.

Ellis, R. (2003). *Task-based language learning and teaching*. Oxford, UK: Oxford University
Press.

Gaffney, A. L. H. (2011). Measuring Students' Self-Efficacy for Communication. *International
Journal of Art & Design Education*, *30*(2), 211-225.

Gass, S. (2003). *Input and interaction*. Oxford, UK: Blackwell.

Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. London, UK: Longman.

Kroll, B. M. (1981). Developmental relationships between speaking and writing. *Exploring
speaking-writing relationships: Connections and contrasts*, 32-54.

Li, P., Sepanski, S. & Zhao, X. (2006). Language history questionnaire: A web-based interface
for bilingual research. *Behavior Research Methods, 38*(2), 202-210.

Liberman, A. M. (1989). Reading is hard just because listening is easy. In *Wenner-Gren
international symposium series: Brain and reading* (pp. 197-205). Macmillan Hampshire,
England.

MacIntyre, P. D., Baker, S. C., Cle´ment, R., & Conrod, S. (2001). Willingness to communicate, social support, and language-learning orientations of immersion students. *Studies on Second Language Acquisition*, *23*, 369-388.

MacIntyre, P., Dörnyei, Z., Clément, R., & Noels, K. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal, 82*(4)*,* 545-562. doi:10.2307/330224

Matsuoka, R. (2006). *Japanese college students' willingness to communicate in english* (Order No. 3233454). Available from ProQuest Dissertations & Theses A&I; ProQuest Dissertations & Theses Global. (304982405).

McCroskey, J. C., & McCroskey, L. L. (1988). Self-Report as an approach to measuring communication competence. *Communication Research Reports*, *5*(2), 108–113. https://doi-org.ezproxy.net.ucf.edu/10.1080/08824098809359810

Mills, A. J., Durepos, G., & Wiebe, E. (2010). *Encyclopedia of case study research* (Vols. 1-0). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781412957397

Otoshi, J. (2005). An analysis of the use of criterion in a writing classroom in Japan. *The JALT CALL Journal*, 1(1), 30-38.

Penfield, W., & Roberts, L. (2014). *Speech and brain mechanisms* (Vol. 62). Princeton University Press.

Phuket, P.R.N, & Othman, N.B. (2015) Understanding EFL students' errors in writing. *Journal of Education and Practice*,v6,n32, 2222-1735

Raoofi, S., Tan, B. H., & Chan, S. H. (2012). Self-Efficacy in Second/Foreign Language

    Learning Contexts. English Language Teaching, 5(11), 60-73.

Schultz, R. (1991). Second language acquisition theories and teaching practice: How do they fit?

    The Modern Language Journal, 75, 17-26.

Storch, N. (2009). The impact of studying in a second language (L2) medium university on the

    development of L2 writing. *Journal of Second Language Writing, 18*(2)*,* 103-118.

    Doi:10.1016/j.jslw.2009.02.003

Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *The*

    Canadian Modern Language Review, *52*, 158–164.

Swain, M. (2008). The output hypothesis: Its history and its future. *Foreign Language Teaching*

    and Research, *40*(1), 45-50.

Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A

    step towards second language learning. *Applied Linguistics*, *16*, 371–391.

Tobin, R. (2010). Descriptive case study. *Encyclopedia of case study research*, *1*, 288-289.

Wen, W. P., & Clement, R. (2003). A Chinese conceptualization of willingness to communicate

    in ESL. *Language, Culture and Curriculum*, 16, 18-3

Woodrow, L. (2011). College English writing affect: Self-efficacy and anxiety. *System*, *39*(4),

    510-522.