The Relationship between WTC and Oral Proficiency Measurements in the Study Abroad Context

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Abstract
Theories of second language acquisition such as the Interaction Hypothesis (Long, 1996) and Pushed Output Hypothesis (Swain, 1995) emphasize that learners must actually communicate in order to bring about the conditions for language acquisition. Learners who are more willing to communicate may create more opportunities for interaction, and thereby possibly improve their spoken proficiency. In L2 research fluency, accuracy and complexity have been used to extensively measure spoken output. This study uses qualitative and quantitative methods to investigate a largely under-researched area: whether there is a relation between fluency, accuracy and complexity, task engagement, and measures of willingness to communicate and actual learner communication and how these change for a group of 23 high-proficiency mainly Asian L2 English learners on a nine-week academic preparation course at a university in England.

Keywords: study abroad, fluency, accuracy, complexity, WTC

1. Introduction

Students embark on study abroad programs of varying lengths to interact with the culture and improve their linguistic skills. Through immersion in the second language setting, students are able to surround themselves with language opportunities that they might not find in their home countries (Freed, 1998). Linguistic skills acquired through study abroad are often measured via fluency, accuracy and complexity in second language research. Indeed, researchers agree that oral output measures like fluency increase after study abroad, even for periods of up to one semester (Freed, Segalowitz, & Dewey, 2004; Segalowitz & Freed, 2004; Trenchs-Parera 2009). Results for accuracy and complexity have been a little more difficult to interpret, with a variety of measurements and operationalizations being used (Housen & Kuiken, 2009). Underlying the results of accuracy and complexity is also the belief that these two facets of oral production develop in different ways to fluency (Gass & Selinker, 2001).

Research into the effect of communication on spoken L2 acquisition has shown that interaction promotes language acquisition by linguistic modifications when native speakers are engaged in interaction with non-native speakers (Long, 1996 – Interaction Hypothesis). Further, through spoken output learners are able to notice what they don’t know about the language, test hypotheses as part of their own speech development and maximize opportunities for language acquisition (Swain, 1995–Pushed Output). The two aforementioned theories work on the assumption that to improve skills and become more proficient learners must actually speak.

In the study abroad context, if learners must communicate to become more proficient, how willing to communicate a learner is will certainly impact on how many opportunities for communication are sought after. It will also affect the degree of linguistic gains realized in the study abroad setting. Therefore, a willingness to communicate can be seen as one of the driving forces within learners to look for opportunities for communication in the target language in second language settings. Research into the psychological construct of Willingness to Communicate (WTC) has shown it to be both trait-like (McCroskey & Baer, 1985) and affected by more situational-based factors (Cao & Philp, 2006; Kang, 2005). Other research has found that WTC leads to the amount of perceived frequency of communication students use during study abroad (Clément, Baker, & MacIntyre, 2003; Yashima, Zenuk-Nishide, & Shimizu, 2004; Yashima & Zenuk-Nishide, 2008), as well as finding that the higher the level of perceived competence is, the higher the WTC will be. However, to date, little research exists into whether students that have higher levels of WTC would be more likely to see improvements.
in their oral output during study abroad. It stands to reason that research into this relationship will add value to second language acquisition as well as WTC research.

Along with the affective level of willingness to communicate, students will also, to some degree, be influenced by their L1 culture. Nobody learns a second language in a vacuum, so the accumulation of experiences and beliefs about learning language create certain learner expectations about the L2 culture (Savignon & Sysoyev, 2002). These expectations are borne of different social factors like the attitude towards the L2 (Gardner, 1985), factors of socialization through education or home life, and even individual factors such as the age or interests of the individual (Neuner, 1994). Cultural differences are brought more to light when different cultures come together, particularly where interaction involves culturally diverse members, creating what has been called a culture of dialogue (Bakhtin, 1986). Researchers should be conscious of the cultural effect on communication in research.

2. Literature Review

This short literature review will look at research into oral production, followed by WTC. Looking at the three main types of oral output measurements (fluency, accuracy and complexity), fluency has by far been the most utilized measure both in second language acquisition and for study abroad. Many researchers have found that students are able to enhance their level of fluency in the L2 through study abroad (DeKeyser, 1991; Freed, 1991; Trenchs-Parera, 2009). This means that students who have studied abroad tend to speak more smoothly and faster than those learners who only stay at home (Freed, 1995). As well as speaking more smoothly, study abroad learners may also display dysfluency patterns similar in nature to native speakers of the language (Trenchs-Parera, 2009).

Comparing fluency to other output measures, less support for concrete changes in the study abroad context have been found for accuracy and complexity (Collentine, 2004; DeKeyser, 2010; Isabelli & Nishida, 2005). Researchers posit that a basic level of accuracy is needed in order to benefit from study abroad (Lara, 2014; Segalowitz & Freed, 2004). It has also been stated that complexity is the most difficult to measure of the three output production measurements (Housen & Kuiken, 2009).

There could also be a relationship between the three measures of complexity, accuracy, and fluency that require both learner attention and working memory. The Trade-Off hypothesis states that committing attentional resources to one of these can have a negative impact on the other types of measurements. In support of the Trade-Off hypothesis, task-based research in the field of second language has generally found that tasks with familiar information and clear structure produce higher accuracy and fluency in learners; interactive tasks produce higher accuracy and complexity; and where information is manipulated in tasks, learners produce higher levels of spoken complexity (Skehan, 2001). The Trade-Off Hypothesis implies improvement of two of the oral production measures to the detriment of, or with no clear improvement in, the third.

Even though we can assume that students in the study abroad context have more opportunities to communicate than if they had stayed at home, students may not actually take advantage of the communications opportunities presented abroad. There are some reasons for this. First, because of their current proficiency level learners may not have the linguistic resources to deal with communication (Segalowitz & Freed, 2004). Second, some cultures value face-saving during communication and as a result would be less likely to experiment in the L2 and take up possible communicative opportunities if presented (Lui & Jackson, 2008). Third, it could also be that less interaction in L2 takes place because the strength and maintenance of harmony between individual members of the same culture is given priority over interaction in the new culture (Tanaka, 2007). It cannot be assumed that if learners are surrounded by the L2 that they will take any opportunity to use it.

One key construct that realizes the capacity to which students do take up opportunities for interaction is Willingness to Communicate (WTC). Originally conceived of in the L1 as a trait/personality construct (McCroskey & Baer, 1985), in the L2, WTC is affected by more situational factors (Fushino, 2008; Kang, 2005; Peng, 2012). Accordingly, there has been recognition of WTC as occurring at the trait, situational, and state levels. At the trait level, the variables are fairly constant across different situations. At the situational level, variables are changeable, but fixed to the situation, and at the state level, WTC is measured at the specific moment it occurs. Each of these types of WTC is different and should have its own research focus (MacIntyre, 2007).

Research at the situational and state level has addressed factors believed to impact on WTC. Elements found to affect WTC were group cohesiveness (Cao & Philp, 2006; De Saint Leger & Storch, 2009) as well as conversational context and topic (MacIntyre, Clément, Dörnyei, & Noels, 1998). Kang (2005) also describes the effect of interlocutor on the level of WTC. In her study, she described a situation in which two Asian students
with the same L1 are speaking together. One of the respondents commented that he was not excited to speak in such a situation because “I feel weird…I feel like I am wearing a mask,” p. 284. In another study, (Weaver, 2010) found that Asian students were more statistically willing to talk to people from a foreign culture than to those of their own culture.

In the relation of WTC to actual communication, studies have found some evidence to support the existence of higher WTC leading to more communication (MacIntyre & Charos, 1996; Yashima & Zenuk-Nishide, 2008), but much of this research has taken place with self-report questionnaires, which may not always be reliable. Although these studies have looked at attitudinal constructs related to the learner, what has been less researched is how WTC is related to actual output measurements like fluency, accuracy and complexity and actual communicativeness in study abroad contexts.

If the theories of Pushed Output (Swain, 1995) and Interactional Hypothesis (Long, 1996) that demand communication to take place are to be realized, it stands to reason that a student must have a willingness to communicate. Through a willingness to communicate the learner seeks out opportunities to communicate and, in turn, improves oral output measures. Fluency, for example, comes about through large-scale automatization of language in communication. Simply, the more learners speak, the more fluent they may become.

Few studies, however, have looked at the relationship between WTC and oral output in study abroad research. One study by Yashima and Zenuk-Nishide (2008) looked at how International Posture, L2 WTC, and Frequency of Communication developed along with proficiency in English by comparing learners in both a study abroad context (for a period of 10 months) and an at home context. The authors surveyed two cohorts of 165 students from a Japanese high school. They found that as well as study abroad learners demonstrating significantly higher levels of fluency, it appeared that learners with higher levels of WTC in the L2 were able to demonstrate higher levels of proficiency as measured by the TOEFL. This study, however, may not be reliable as it relied solely on student-reported measures for Frequency of Communication.

Another study by D’Amico (2012) investigated 23 L1 English learners of Spanish. Data were collected through pre- and post-program questionnaires and interviews. It was found that both fluency (employing temporal measures) and WTC increased over a 6-week period, but no correlation was found between fluency and WTC, both at a group and at the individual level. Indeed, one learner with a low fluency score on both pre- and post-program instruments had one of the highest reported WTC scores. The author suggested that in order to find a connection between fluency and WTC, both these constructs should be looked at in different ways. The author also recommended that if other data were collected on WTC, incorporating different viewpoints, as well as self-reported data, there might be a possibility of finding a connection between WTC and fluency (p. 1623).

Therefore, by looking at these two studies we could hypothesize that different measurements of WTC are needed to understand the construct. Also, students with higher WTC could potentially display higher fluency, which may consequently affect accuracy and complexity. Further, it is important to know how these factors lead concretely to the amount of communicativeness in the language, rather than self-reported frequency of communication in the study abroad context.

More research is needed into WTC and its relationship with oral production measures during a study abroad course, and how they both change over time. The research questions for this study are:

1) To what degree do oral measures of Fluency, Accuracy, Complexity, and Learner Communicativeness change over a nine-week study abroad course?

2) What is the relationship between WTC and Fluency, Accuracy, Complexity, and Learner Communicativeness over the course of a nine-week study abroad course?

3. Methods

3.1 Setting and Participants

The setting for this study is a public university in the south of England (PU) that offers academic preparation courses for students wishing to enter the graduate Masters and PhD programs. The participants in this study formed an n-size of 23, which is broken down as follows: For gender, 31% were female and 69% were male. Next, for nationality 61% were Chinese and 39% were other nationalities predominantly nationalities from the Middle East, like Saudi Arabia and Oman, with one student each from Greece and Turkey.

The course that these students undertake is designed to raise learner’s IELTS scores to the limit acceptable for entrance into the University for Graduate Courses. The course lasts for nine weeks. In English qualifications, namely IELTS, most students were at the 6 and 6.5 levels, with the mean at 5.8, and all students had not been
abroad before, but three students had been in the UK for at least 6 months prior to the time of the study. During the academic preparation program students take courses in reading, debate, and listening. There are two teachers that teach all the students on the nine-week course. After briefly interviewing these teachers, the author was able to ascertain that they both use communicative methods to improve the academic level of the students and both have taught on this course for the past five years. One teacher does tend to push his students to speak more, while the other teacher tends to put the onus of willingness to communicate on the shoulders of the students because that teacher believes students should be more able to take responsibility for their own learning. There were two academic classes of 15 students each, with the participants in this study spread mostly evenly in numbers between these two classes.

3.2 Procedure

This study employs both qualitative and quantitative methodology. The quantitative data for this study was collected three times over the nine-week period of the academic course in the summer of 2014. Time one was after week two, time two was after week five, and time three was in the final week, nine. For times one and two the author prepared a discussion task relevant to the topics in class that the students had encountered up to that point. The tasks included a brief scenario followed by three discussion questions about the topic. For time three the students were free to discuss any topic that they wanted with their partner for which they were given a couple of minutes before the task to decide some main themes. Generally, students spoke in the tasks for between fifteen to thirty minutes, but a random 10-minute sample was used for each dyad for the oral production measures. Students were paired with students of similar ability, but as much as possible, from different cultures in order to promote the idea of exchange of language between different cultures. Participants were also told to be natural and hold the floor for as long as possible.

The qualitative part of the methodology was employed through the use of stimulated recall that was to capture the moment to moment thoughts of the students during the three activities. Gass and Mackey (2000) claim that stimulated recall is a way of eliciting data about thought processes involved in carrying out the activity. The students were given 15 minutes immediately after the activity to write down their thoughts. The author guided them with questions like what did you think went well or poorly about the activity, what did you think of your ability to get your message across to your partner, what did you think of the topic itself, and in later weeks’ activities how did the activity compare to previous activities you had taken part in?

Individual measurements for each student during the sessions were the following:

- **Fluency.** Variable measured by total words per minute (Pe´rez-Vidal & Juan-Garau, 2011). Variables that measure speech rate have been found to be positively correlated with other measures of fluency such as pause length (Segalowitz & Freed 2004).

- **Accuracy.** Variable measured by the number of errors over a specific time (Mehnert, 1998). In this case the total errors were averaged out over total talk time to create the error rate. The errors counted included grammatical, lexical or pragmatic. Pragmatic errors included utterances that were grammatically or lexically correct, but pragmatically inappropriate in a situation. Global errors were chosen over specific types of errors because of the considerable variability found even among native speakers of a language with certain structures (Geeslin & Guijarro-Fuentes, 2006).

- **Complexity.** Variable measured by the number of words per c-unit (Mehnert, 1998), again averaged out to find the c-units length as a product of the total number of words. This was called the complexity rate. A c-unit is defined as “independent utterance providing pragmatic meaning” (Foster & Skehan, 1996, p. 310). That is a phrase that may or may not be complemented by a verb and carries a communicative value. An example is in response to “Where are you going?” the elliptical answer “out” would count as a c-unit. C-units can preserve more of the interaction than competing measures like the T-unit by including stereotypical single word utterances and other non-clausal units that accompany a question or request.

- **Learner Communicativeness 1.** Variable used to find out how much the students communicated during the activity. It was measured by number of turns and length of turns (Dörnyei & Kormos, 2000). These authors noted that the number of turns depended more on quality of the joint interaction and an interlocutor’s active contribution than the number of words.

- **Learner Communicativeness 2.** This was an individual score of up to five points given to the students at the end of the course by the teacher. The score was based on a rubric as seen in Appendix A, designed by the author with input from the teachers involved in this study. The purpose was to operationalize WTC as a product of student actions and intentions in the classroom. The rubric showed examples of communicative
behavior for students as follows: 5 = A highly communicative student, 4 = A communicative student, 3 = A fairly communicative student, 2 = Somewhat communicative, and 1 = Generally not communicative.

- **WTC**. Variable measured by a student self-report questionnaire as seen in Appendix B. The questionnaire was designed to measure situational WTC and it follows a trend of other researchers who have designed situational measurements for the purposes of their studies (Fushino, 2008; Sick, 2001). The 14 activities were created with the help of the teachers of the course and were designed to represent activities that would likely take place in class during the course. Activities included volunteer your opinion in small group setting and argue a point you feel is wrong in class with the teacher. Students had to assign a score of nine points, ranging from definitely not willing at one point up to definitely willing at nine points to show a score of willingness to communicate in each activity. Finally, a composite score of 108 (12 situations with nine points for each question) self-report situational WTC was assigned to each student (D’Amico, 2012).

- **Self-Perceived Communicative Competence**. Variable recorded how students rated their overall level of Self-Perceived Communicative Competence (SPCC) to communicate in class, with one point being the lowest and 10 the highest.

The data of the oral production measures and learner engagement from three times during the course were used as comparison. This was in line with other studies that have compared three production measures from the same participants over a period of time during study abroad courses (Mora & Valls-Ferrer, 2012; Perez-Vidal & Juan-Garau, 2009; Segalowitz & Freed, 2004).

4. Results and Discussion

SPSS software was used to analyze data in this study. The descriptive statistics can be seen in Table 1. The skewness measures the degree of asymmetry around the mean of an item’s scores, and kurtosis measures the peakedness of the normal distribution of an item. The standard check for skewness and kurtosis is the standard error of measurement (SE) divided by the skewness/kurtosis value, which gives a Z (standard deviation) score of standard error of skewness/kurtosis. Values above or below +/- 1.96 are considered significant positive/negative values and break the assumptions of a normal distribution. In this data set, allowing for the small n-size, it is more likely that there are some items that break the assumptions.

Firstly, among the WTC items 3, 4, 5, 6, 8, 10, 11 and 12 have significant skewness or kurtosis values. However, when put together for the final WTC score (St Total WTC) there are no significant values. Lastly, there are five more significant values for skewness or kurtosis among the measurements of oral output and the final engagement score by the teacher (Teacher Eng. Score).

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>SE</th>
<th>Kurt</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCC</td>
<td>5.80</td>
<td>1.44</td>
<td>1.01</td>
<td>.48</td>
<td>1.79</td>
<td>.93</td>
</tr>
<tr>
<td>WTC1</td>
<td>6.70</td>
<td>2.08</td>
<td>-.79</td>
<td>.48</td>
<td>.87</td>
<td>.93</td>
</tr>
<tr>
<td>WTC2</td>
<td>6.83</td>
<td>2.08</td>
<td>-.94</td>
<td>.48</td>
<td>.62</td>
<td>.93</td>
</tr>
<tr>
<td>WTC3</td>
<td>6.39</td>
<td>2.06</td>
<td>-.51</td>
<td>.48</td>
<td>-.10</td>
<td>.93</td>
</tr>
<tr>
<td>WTC4</td>
<td>5.57</td>
<td>1.85</td>
<td>.29</td>
<td>.48</td>
<td>-.44</td>
<td>.93</td>
</tr>
<tr>
<td>WTC5</td>
<td>6.13</td>
<td>1.39</td>
<td>-.08</td>
<td>.48</td>
<td>.75</td>
<td>.93</td>
</tr>
<tr>
<td>WTC6</td>
<td>6.26</td>
<td>2.00</td>
<td>-.06</td>
<td>.48</td>
<td>-1.31</td>
<td>.93</td>
</tr>
<tr>
<td>WTC7</td>
<td>6.70</td>
<td>1.99</td>
<td>-.22</td>
<td>.48</td>
<td>-1.44</td>
<td>.93</td>
</tr>
<tr>
<td>WTC8</td>
<td>5.87</td>
<td>1.74</td>
<td>-.35</td>
<td>.48</td>
<td>-.22</td>
<td>.93</td>
</tr>
<tr>
<td>WTC9</td>
<td>5.57</td>
<td>2.15</td>
<td>.26</td>
<td>.48</td>
<td>-1.28</td>
<td>.93</td>
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<tr>
<td>WTC10</td>
<td>5.70</td>
<td>2.03</td>
<td>-.40</td>
<td>.48</td>
<td>.27</td>
<td>.93</td>
</tr>
<tr>
<td>WTC11</td>
<td>5.17</td>
<td>2.41</td>
<td>-.18</td>
<td>.48</td>
<td>-.85</td>
<td>.93</td>
</tr>
<tr>
<td>WTC12</td>
<td>6.17</td>
<td>2.17</td>
<td>-.27</td>
<td>.48</td>
<td>-.10</td>
<td>.93</td>
</tr>
<tr>
<td>St Total WTC</td>
<td>73.04</td>
<td>14.77</td>
<td>.26</td>
<td>.48</td>
<td>-.54</td>
<td>.93</td>
</tr>
<tr>
<td>No. of Turns 1</td>
<td>25.00</td>
<td>7.66</td>
<td>.13</td>
<td>.48</td>
<td>-.65</td>
<td>.93</td>
</tr>
</tbody>
</table>
The first analysis of this data can be seen in Table Two. All the five oral output measurements were subjected to individual T-tests measuring the mean differences between times 1, 2 and 3 (a Bonferroni adjustment was made to lessen the likelihood of Type 1 error). As can be seen, the only change in variables was recorded for accuracy, with the Error rate significantly increasing between time 1 and 2 and time 3. This result may have been a product of the different type of activity for time 3 compared to times 1 and 2. Task types have been found to improve accuracy (Skehan & Foster, 1999; Yuan & Ellis, 2003).

The lack of change in fluency and complexity goes against previous studies that have found that fluency increased during study abroad (Segalowitz & Freed, 2004, Trenchs-Parera 2009). As far as fluency is concerned, it may be that students are not getting enough opportunities to speak and automatize their procedural knowledge, resulting in speech that does not speed up over time. After talking with the teachers and speaking informally to some of the students on the course, a number of patterns emerged to explain this result. Students were reported to have used their L1 when talking with people from their own cultural background in class. This was compounded when students left the classroom. Oftentimes students only spent time with people who spoke their own L1 after class. Such behavior has been observed in other studies (Pellegrino-Aveni, 2005; Tanaka, 2007) and could explain why students who professed to have higher WTC may have only applied that to situations inside the class, not out of class. On the other hand, some students claimed the only contact with native speakers was when they had to carry out important transactions, like opening a bank account. There appears to have been little actual opportunity to speak English, other than on the PU course. A previous study found that learners do not always take advantage of opportunities to interact because there are fewer opportunities (Isabelli-Garcia, 2003).

Table 2. Changes in the oral output measurements over three time periods

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
<th>Sig. diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of turns</strong></td>
<td>25.01</td>
<td>23.78</td>
<td>26.87</td>
<td></td>
</tr>
<tr>
<td><strong>Length of turn</strong></td>
<td>20.29</td>
<td>20.39</td>
<td>23.27</td>
<td></td>
</tr>
<tr>
<td><strong>Error rate</strong></td>
<td>16.25</td>
<td>15.12</td>
<td>24.02</td>
<td>1,3;2,3</td>
</tr>
<tr>
<td><strong>Complexity rate</strong></td>
<td>9.82</td>
<td>9.72</td>
<td>9.84</td>
<td></td>
</tr>
<tr>
<td><strong>Words per min.</strong></td>
<td>112.82</td>
<td>108.79</td>
<td>100.55</td>
<td></td>
</tr>
</tbody>
</table>

*Note. significance set at p = >.05.*
The second analysis in Table 3 shows correlations between the oral output measures for all three activities.

### Table 3. Correlations between oral output measurements for all 3 times

<table>
<thead>
<tr>
<th>Time 1</th>
<th>No. of turns 1</th>
<th>Length of turn 1</th>
<th>Error Rate 1</th>
<th>Complexity rate 1</th>
<th>Words per min. 1</th>
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</thead>
<tbody>
<tr>
<td>No. of turns 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of turn 1</td>
<td>-.546**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error rate 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity rate 1</td>
<td>-.603**</td>
<td>.652**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Words per min. 1</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Time 2</th>
<th>No. of turns 2</th>
<th>Length of turn 2</th>
<th>Error Rate 2</th>
<th>Complexity rate 2</th>
<th>Words per min. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of turns 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of turn 2</td>
<td>-.484*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error rate 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity rate 2</td>
<td></td>
<td>.588**</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Words per min. 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.560**</td>
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<table>
<thead>
<tr>
<th>Time 3</th>
<th>No. of turns 3</th>
<th>Length of turn 3</th>
<th>Error Rate 3</th>
<th>Complexity rate 3</th>
<th>Words per min. 3</th>
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<tbody>
<tr>
<td>No. of turns 3</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Length of turn 3</td>
<td>-.794**</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Error rate 3</td>
<td></td>
<td></td>
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<tr>
<td>Complexity rate 3</td>
<td>-.727**</td>
<td>.785**</td>
<td></td>
<td></td>
<td>.616**</td>
</tr>
<tr>
<td>Words per min. 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. significance set at *p* = .01.

In the results, first, a number of negative correlations between number of turns and length of turns is easily understood when it is considered that as learners speak more in one turn, the amount of turns in a fixed time will naturally be fewer. Second, length of turns is also positively correlated with the complexity rate in all three times. While the learners were doing the activity they were able to plan online and produce more syntactically complex structures (Yuan & Ellis, 2003). Conversely, as the number of turns increased, the length of turn became shorter. Third, the complexity was also affected by the fewer number of clauses, which explains the negative correlation in times 1 and 3 between complexity and number of turns. Lastly, in Table three the words per minute in times 2 and 3 correlated positively with the complexity rate and accuracy rate respectively. It appears as though the Trade-off Hypothesis (Skehan, 2009) is evident in this data because two variables were related while the others are not on a particular activity.

The next analysis looked at what factors predicted the final learner engagement score given to each student at the end of the course because this score was the product of all attempts to be communicative during the nine-week course. The teacher score was added as the dependent variable and all the oral output measures as well as the students self-report WTC and SPCC scores were entered as independent variables. A Stepwise regression was chosen because the analysis was exploratory. Even though one or more of the independent variables (IV) were hypothesized to have possibly influenced the dependent variable (DV), the relative strengths of the predictors were unknown. The analyses showed that of the 18 independent variables, SPCC was the only significant predictor of the final teacher engagement score (F (1, 21) = 11.16, *p* < .05). Further, for this regression, SPCC accounted for 32% of the total variance of the teacher engagement score, which is adequate for a single predictor. In previous literature, SPCC has been found to predict WTC for trait measures, along with communication
anxiety (Kim, 2004; Yashima, 2002; Yashima et al., 2004). As either communication anxiety or perceived competence change, WTC is subsequently affected. In this study, SPCC was a more powerful predictor of actual communication in the form of learner engagement than self-report WTC. A similar result was found with beginning learners (MacIntyre & Charos, 1996) when measuring self-reported frequency of L2 use. The participants in this group, however, were of a more advanced-level, so it appears that SPCC at differing levels can affect how much a student chooses to communicate in the L2.

Owing to the fact that little could be found in changes and correlations between the variables in this study, Table 4 shows the individual scores of students in the study. These were investigated to identify any interesting cases. The underlined values show where the changes were found to be excessively high or low compared to the other participants. Firstly, there appears to be evidence of some pattern between the IELTS score, SPCC and self-reported WTC, lower levels of self-reported WTC and SPCC (St. 5, 11, 14). Many of the low-scoring WTC and learner engagement students were Chinese. Researchers have found that Chinese learners are often averse to speaking up in class and will remain reticent and non-participatory (Hu, 2002; Yu, 2001). This may be the case with some, but not with student 12 who commented about his own determination to engage in the tasks in English. Students 4, 5, 11, 19, 21 are lower IELTS students, and they have all scored themselves lower on competence and WTC.

In contrast, many of the students who had higher teacher engagement scores were Middle Eastern students, who tended to dominate the conversations when paired with Chinese students. One Chinese student commented:

“I waited for (him) to slow down so then I can speak more,”

The Chinese student expected the Middle Eastern student to allow him to speak, but that student was a seemingly more confident and competent L2 speaker, which negatively affected the WTC of the Chinese student. It is clear that the interlocutor greatly affects the degree of student communication (Kang, 2005; Weaver, 2005).

It also appears that the level of learner engagement may have been affected by the course they were on. For example, some Middle Eastern students that scored high for learner engagement started off with lower levels of WTC and SPCC (St. 17 & 18), so being on the course may have helped them increase WTC and their level of participation in the class. Both these students commented that they liked discussions in pairs and whole group settings. On the other hand, two Chinese students who started with high levels of WTC had not really engaged so much in class (St. 20 & 13). These students in particular both said that there were not enough chances in class to participate in discussions. It is clear that what some students saw the class as engendering opportunities to interact, while others did not.

Table 4. Individual changes in participant scores for output, WTC, SPCC and learner engagement

<table>
<thead>
<tr>
<th></th>
<th>ITS</th>
<th>Nat</th>
<th>SPCC</th>
<th>WTC</th>
<th>LE</th>
<th>Turns</th>
<th>Length of turn</th>
<th>Error rate</th>
<th>Complexity rate</th>
<th>Words per min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. 1</td>
<td>5.5 Chinese</td>
<td>4</td>
<td>85</td>
<td>3</td>
<td>9</td>
<td>-11</td>
<td>-31.7</td>
<td>32.4</td>
<td>-0.5</td>
<td>6.4</td>
</tr>
<tr>
<td>St. 2</td>
<td>5.5 Greek</td>
<td>6</td>
<td>73</td>
<td>4</td>
<td>12</td>
<td>2</td>
<td>-3.1</td>
<td>-0.3</td>
<td>0.1</td>
<td>3</td>
</tr>
<tr>
<td>St. 3</td>
<td>7 Iraqi</td>
<td>7</td>
<td>52</td>
<td>5</td>
<td>2</td>
<td>8</td>
<td>3.7</td>
<td>-13.9</td>
<td>-2.8</td>
<td>3</td>
</tr>
<tr>
<td>St. 4</td>
<td>5.5 Chinese</td>
<td>4</td>
<td>68</td>
<td>3</td>
<td>-2</td>
<td>5</td>
<td>2.2</td>
<td>-12</td>
<td>2.7</td>
<td>3.5</td>
</tr>
<tr>
<td>St. 5</td>
<td>5.5 Chinese</td>
<td>4</td>
<td>54</td>
<td>3</td>
<td>-8</td>
<td>11</td>
<td>1.1</td>
<td>-1.4</td>
<td>-3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>St. 6</td>
<td>7 Omani</td>
<td>7</td>
<td>74</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>1.2</td>
<td>-14.6</td>
<td>2.1</td>
<td>7.6</td>
</tr>
<tr>
<td>St. 7</td>
<td>5.5 Chinese</td>
<td>6</td>
<td>85</td>
<td>4</td>
<td>-14</td>
<td>-4</td>
<td>-4.3</td>
<td>3.9</td>
<td>-4.2</td>
<td>24</td>
</tr>
<tr>
<td>St. 8</td>
<td>5.5 Chinese</td>
<td>6</td>
<td>67</td>
<td>3</td>
<td>-1</td>
<td>12</td>
<td>0.6</td>
<td>0.4</td>
<td>1.8</td>
<td>12.4</td>
</tr>
<tr>
<td>St. 9</td>
<td>7 Omani</td>
<td>7</td>
<td>88</td>
<td>5</td>
<td>13</td>
<td>5</td>
<td>-5.2</td>
<td>-6.3</td>
<td>-6.5</td>
<td>19.2</td>
</tr>
<tr>
<td>St. 10</td>
<td>6 Saudi</td>
<td>7</td>
<td>90</td>
<td>4</td>
<td>0</td>
<td>22</td>
<td>-2.4</td>
<td>-17</td>
<td>3.9</td>
<td>26.7</td>
</tr>
<tr>
<td>St. 11</td>
<td>5 Chinese</td>
<td>5</td>
<td>56</td>
<td>2</td>
<td>-13</td>
<td>-6</td>
<td>6.8</td>
<td>27.5</td>
<td>-2.4</td>
<td>14</td>
</tr>
<tr>
<td>St. 12</td>
<td>6 Chinese</td>
<td>10</td>
<td>105</td>
<td>3</td>
<td>-4</td>
<td>9</td>
<td>6.8</td>
<td>36.6</td>
<td>3.6</td>
<td>16.4</td>
</tr>
<tr>
<td>St. 13</td>
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<td>5</td>
<td>96</td>
<td>3</td>
<td>-6</td>
<td>5</td>
<td>11.7</td>
<td>4</td>
<td>14.7</td>
<td>7.5</td>
</tr>
<tr>
<td>St. 14</td>
<td>5.5 Chinese</td>
<td>5</td>
<td>77</td>
<td>3</td>
<td>-14</td>
<td>5</td>
<td>1.4</td>
<td>-3.4</td>
<td>4.4</td>
<td>-12.2</td>
</tr>
</tbody>
</table>
Lastly, looking at the oral output measures, no real patterns emerged in the number of turns, length of turn or complexity, but it was clear the topic was an important factor affecting fluency and accuracy. The fluency scores for students 1, 11, and 20 showed large swings between times 1 and 2 and 2 and 3. Student 2 explained that the last activity, which was a free topic, was more difficult for her to discuss, and she felt a little at a loss to know what to talk about. She preferred the first two activities, especially the second activity, which was on a topic that she was particularly interested in. It can be seen that if people are interested in a topic that they tend to engage more fluently and more actively in the topic. Next, student 11 was able to accomplish more fluent speech in the third activity because she was able to speak deeply about her problems with someone from her own culture. She talked about what she thought about the course and what had happened in class over the nine-week program, and as she continually said “as I said to you before”, we can assume that she is familiar with and has talked about these kinds of problems to her colleagues from the same culture. Lastly, student 20 expressed that the topic for activity two was something he had never come across before and he claimed he had problems with using suitable vocabulary to fit the arguments he was making. Research has found that topic familiarity can improve the fluency and accuracy of oral output (Rahimpour & Hazar, 2007), as well as increasing the level of WTC (MacIntyre, Clément, Dörnyei, & Noels, 1998). With this group topic knowledge certainly impacted on fluency.

6. Conclusion

Popular theories of second language acquisition state that in order for acquisition to take place students have to speak to realize gains. During study abroad students are surrounded by more opportunities to interact, but whether they take up opportunities in that context is partly dependent on a learner’s willingness to communicate (WTC). This construct is recognized at the trait, situational and state levels. If learners have higher levels of WTC, it also stands that through more interaction they will improve their measures of oral output, namely fluency, accuracy and complexity. This is the basic premise explored in this study. The 23 participants in this study would be considered to have a high-proficiency level because of their IELTS scores and the fact they were preparing to enter graduate school at a university in England.

The first research question looked at how measures of fluency, accuracy, complexity, and learner engagement changed over the nine-week period. The results showed that of all these measures only accuracy saw significant increases from time 2 to time 3, which may have been down to the type of activity used in time 3. An inspection of the changes in the individual scores showed very few patterns, with increases and decreases in all variables recorded. However, data collected after the activities does show that performance during the activities can depend on the interlocutor (Weaver, 2005), and the familiarity of the topic to the learner (Rahimpour & Hazar, 2007). The teachers preparing the course must work towards finding out what topics are important and of interest to the learners to enhance the opportunities for interaction and increase their oral output measures. In a study by Wolf (2013), the author used an argumentative essay as the basis for selecting topics for discussion. Students paid particular attention to their perceptions of interest, knowledge, importance, difficulty, and confidence with regard to discussing their own topics in English. Results of a questionnaire revealed that compared to topics taken from a textbook, learners perceived greater knowledge about and interest in discussing their own topics. Further, higher levels of confidence in discussion were reported with regard to students choosing their own topics in both pair and whole-class contexts compared with the textbook-assigned topics. Although, learners in the Wolf study were monolingual, it provides some evidence that self-selection of a discussion topic can increase WTC. Future
research should investigate topics for more culturally-diverse groups of learners. It also appears that contrary to some research that nine weeks may not be enough time to realize gains in these variables. This leaves us with the possibility that there are not enough opportunities and learners are not finding opportunities to interact in the L2, preferring to keep within their same cultural groups and use their L1s, instead. It is clear that from a learning and integration perspective the university should do more to help lead willing learners to situations in which they can interact in their L2s, and create a space where less willing L2 learners do not feel conscious about using English with other learners from their culture or different cultures.

The second question looked at the relationship between WTC and fluency, accuracy, complexity and learner engagement over the nine-week course. The first analysis was a correlation, which showed complexity and length of turn as being strongly positively correlated, a result that confirms the idea of on-line planning (Yuan & Ellis, 2003). On-line planning involves learners paying attention to deploy more complex structures in their speech. Also, other variables were shown to be correlated at different times, but with no clear pattern. This does show that there is a trade-off of attentional resources being played out at different times, depending on the task (Skehan, 2009).

The second analysis for question two, and the basic premise behind this study, did not find a clear relationship between fluency (and other output measures) and WTC as seen in a regression analysis, which could only find student SPCC as predicting the level of student engagement. This result mirrors that of D’Amico (2012), but goes against results from a study by Yashima et al. (2008). The situation is more complicated than it appears. It is very difficult to separate how much of the WTC is culturally-sanctioned or dependent on other cognitive factors. Language and culture are inseparable, so orienting students towards a more sociolinguistic orientation of education is important (Canale & Swain, 1980). Strategy training has gone some way to help students overcome these cultural difficulties. Savignon and Sysoyez (2002) found that problem solving strategies like taking initiative to avoid cultural misunderstanding helped students be more spontaneous in the L2 and intercultural strategies like making analogies and generalizations helped students maintain intercultural exchange. Direct teaching of strategies like these in diverse L2 classes may also help to promote WTC.

Despite the limitation of this study having a small n-size, it attempted to measure WTC through different measures, other than self-report, but could not find any link between fluency and WTC. These factors may well be independent of each other, but it could also be that the measures used in this study are not reliable or valid to measure oral production effectively. Larger n-sizes and an array of alternative and consistent measures may, as yet, identify the connection. Further, a state WTC measure, rather than a situational measure might also find a connection when the communication activity is taking place.

Acknowledgements

The data collection in this study would not have been possible without the help of all teachers and administrators on the pre-sessional course at PU, Hampshire, England.

References


Trenchs-Parera, M. (2009). Effects of Formal Instruction and a Stay Abroad on the Acquisition of Native-Like


**Appendix A**

**Teacher Assessment of Students’ Willingness to Communicate**

*You are instructed to (1) not be concerned with the quality of the students speaking (e.g., their grammatical accuracy) or any behavioral issues, and (2) focus on the quantity of their English participation and communicativeness in the class.*

5 = EXCELLENT  
A highly communicative student

- speaking frequency was well above expectations
- often made comments or asked questions during tasks to other students / teacher in class
- often made casual conversation in English with students / the teacher
- took a highly active role in speaking tasks
- appeared highly motivated to speak
- often volunteered answers in a whole class setting

4 = GOOD  
A communicative student

- speaking frequency was somewhat above expectations
- sometimes made comments or asked questions during tasks to other students / teacher
- often made casual conversation in English with students / the teacher
- appeared motivated to speak
- sometimes volunteered answers in a whole class setting
- took part actively in group settings

3 = FAIR  
A fairly communicative student

- speaking frequency was minimally acceptable
- sometimes made comments or asked questions during tasks to other students
- made occasional casual conversation in English with students
- participated in speaking tasks, meeting the basic requirements
- appeared marginally motivated to speak
- volunteered answers in a whole class setting once or twice
- Took part a little in group settings
2 = POOR  Somewhat communicative
• speaking frequency was below expectations
• rarely made comments or asked questions to other students
• rarely engaged in casual conversation with other students
• generally inactive during speaking tasks
• appeared to have little motivation to speak
• did not volunteer answers in class
• Poor work participation in group settings

1 = VERY POOR  Generally not communicative
• speaking frequency was well below expectations
• almost never made comments, or asked questions to other students
• rarely spoke during speaking tasks, even when required to do so
• appeared unmotivated to speak
• did not volunteer answers in class
• did not take part in group setting

Appendix B
Student WTC Questionnaire
Please use following scale of 1-9 points to show how willing you are to take part in the class activities listed from 1-14. Indicate score of intention in class from 1-10 using scale below.

1. Definitely not willing
2.
3.
4.
5. Probably Willing
6.
7.
8.
9. Definitely willing

1  Participate in a class debate.
2  Discuss points in small groups.
3  Ask your partner / group members to speak slower in English because you don’t understand/can’t hear.
4  Ask your teacher to speak slower in English because you don’t understand / can’t hear.
5  Ask a follow up question to a group member during a group discussion.
6  Volunteer your opinion in a whole class setting.
7  Answer a direct question in class from the teacher.
8  Give more details about your opinions without being asked.
9  Give a self-introduction at the front of the class.
10 Argue a point you feel is wrong in class with a classmate.
11 Argue a point you feel is wrong in class with the teacher.
12 Ask a partner how to express a thought you want to use for speaking.

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