

## **Relationship Among Willingness to Communicate, Accuracy, Fluency, and Complexity of Utterances in Japanese EFL Learners**

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### **Abstract**

This study examined the relationship between the fluctuating state of willingness to communicate (WTC) of Japanese EFL learners and the quality of their utterances. Interactive communicative activities between an interlocutor and two low-intermediate and two advanced Japanese university EFL speakers were recorded, transcribed, and analyzed. The findings indicated that levels of self-rated state WTC did not have a significant effect on linguistic quality measured in terms of complexity, accuracy, and fluency (CAF). However, a closer analysis of the data on learners' English proficiency implied that the accuracy of the utterances of low-intermediate speakers, and the fluency of advanced speakers may be correlated with WTC. One possible pedagogical implication is that EFL teachers may have to consider a different relationship between WTC and the linguistic quality of learner utterances, according to their language proficiency, while paying more attention to linguistic accuracy in teaching lower-level learners.

**Keywords:** willingness to communicate, complexity, accuracy, fluency, language proficiency

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### **1. Introduction**

The emphasis in English as a foreign or second language (EFL/ESL) teaching has shifted from the mastery of structures to the acquisition of communicative competence, with learners acquiring the target language by actually using it. In Japan, the Course of Study set by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) proposed the incorporation of debate and presentation activities in senior high school English classes, with the intention of fostering deeper learning rather than focusing on linguistic accuracy by relying on mechanical activities, such as rote memorization techniques (MEXT, 2018). MEXT (2011) recommended conducting English classes mainly in English in order to develop students' communication abilities. The trend of learning a language through communication, commonly seen in EFL/ESL classrooms, is compatible with second language acquisition (SLA) theories as sufficient

input, output, and interaction are optimal for language learning to take place (Gass, 2003; Krashen, 1982; Long, 1996; Schmidt, 1992; Swain, 1985; Vygotsky, 1978). In this learning environment, learners' willingness to communicate (WTC), defined as "a readiness to enter into discourse at a specific time with a specific person or persons, using an L2 when free to do so" (MacIntyre et al., 1998, p. 547), is crucial. Learners should ideally be engaged in communication, and have access to opportunities to communicate with others in the target language with a high WTC. WTC is both a trait-like predisposition (stable, like a personality) and a situational, state disposition, that is changeable through conditional and/or affective factors (Dörnyei, 2014; Kang, 2005; MacIntyre, 2007; Sato, 2019, 2020). It is important for teachers to foster learners' WTC in L2 classrooms. Studies that have explored learners' traits and state WTC have also suggested ways to foster learner WTC (e.g., Cao & Philip, 2006; Dörnyei, 2014; Kang, 2005; MacIntyre, 2007, Pawlak & Mystkowska-Wiertelak, 2015; Sato, 2020; Yashima et al., 2018). However, linguistic aspects of the target language and the quality of learner utterances should be highly regarded in communication-oriented language classrooms, as well. As the relationship between the quality of learner utterances and degree of WTC has not been well examined in EFL situations to date, this exploratory observational case study examined the relationship between the quality of utterances and degree of situational WTC. This study focused on complexity, accuracy, and fluency (CAF), as they have been examined in L2 research in measuring L2 speakers' proficiency through their performance (Ellis & Barkhuizen, 2005; Housen & Kuiken, 2009).

## **2. Literature Review**

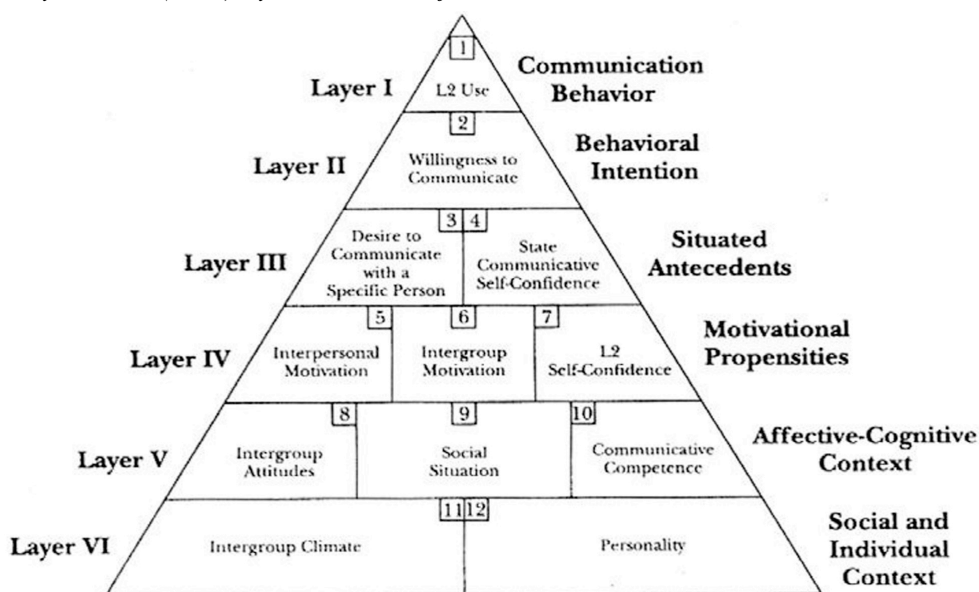
In foreign and second language instruction, the development of communicative competence and practical communication abilities receives a heavy focus. One of the most important goals of foreign language instruction is to prepare learners to talk in the target language willingly and fluently (MacIntyre et al., 1998). SLA research has shown that adequate input, output, and interaction are critical for language learning (Krashen, 1982; Long, 1996; Schmidt, 1992; Swain, 1985). Thus, learners should be involved in activities that require them to speak in order to learn the language.

WTC is an individual emotional element that has been investigated in SLA. It is described as one's volition to initiate communication, or whether or not a speaker is ready to participate in an L2 discourse with others at a given point in time (e.g., MacIntyre, 2007; MacIntyre et al., 1998). Wanting to connect with others in the target language when given the opportunity is critical for L2 learning, as frequent usage of the target language

is linked to increased L2 learning (e.g., Yashima et al., 2004). WTC was first postulated in L1 communication contexts (McCroskey & Richmond, 1987), and it is thought to be a stable personality-like quality that does not change in diverse situations. MacIntyre and Charos (1996) applied it to the L2 context. By establishing a multilayered pyramid model, MacIntyre et al. (1998) gave a holistic approach of how separated variables interact and converge as WTC in L2 (see Figure 1). According to the model, perceived communication competence (PCC) and lack of communication apprehension (CA) are both directly related to WTC, suggesting that stronger communication confidence and lower communication apprehension lead to a higher likelihood of starting communication.

**Figure 1**

*MacIntyre et al's (1998) Pyramid Model of WTC*



Following the model (MacIntyre et al., 1998), researchers have focused on the dynamic nature of WTC and situational variables that affect WTC fluctuation (e.g., Cao & Philip, 2006, Kang, 2005; MacIntyre, et al., 2001; Pawlak & Mystkowska-Wiertelak, 2015; Sato, 2019, 2020; Yashima et al., 2018). Affective factors can contribute to changes in WTC. Kang (2005) found that security (feeling safe from anxiety or fear during L2 communication), excitement (a sense of elation and happiness in speaking), and responsibility (feeling a duty to communicate the message), affect situational WTC in L2. MacIntyre et al. (2001) argued that who learners communicate with is an important

situational variable for WTC, as learners' level of CA decreased and PCC increased, leading to higher WTC, when they talked with their friends in the target language. Learners in MacIntyre et al. (2001) felt a sense of security, excitement, and responsibility. Several conditional factors were reported to affect situational WTC, such as interlocutors, topics, conversational contexts (Cao & Philp, 2006; Kang, 2005), the opportunity to express one's ideas, and mastery over the lexical items needed in the task (Pawlak & Mystkowska-Wiertelak, 2015; Sato, 2020).

Learners' proficiency levels are crucial in determining the degree of WTC, with low English proficiency contributing to unwillingness to speak English during lessons (Liu, 2005). Liu and Jackson (2009) found that students with higher proficiency were more willing to speak in class.

In the Japanese EFL context, Koga (2010) discovered that emphasizing cooperative and communicative work in EFL classroom settings can improve learners' WTC and PCC while decreasing CA. Sato (2020) found that advanced speakers' WTC was influenced by opportunities to talk about themselves and their thoughts, but lower-level learners' WTC was influenced by the interest in the issue and the influence of interlocutors on one's sense of security.

Researchers have been looking into the complex, dynamic psychological, emotional, and conditional factors that influence WTC, which is one of the primary aims of language training, encompassing linguistic and communicative competence and other related characteristics (MacIntyre et al., 1998). Higher WTC in the classroom can help students improve their linguistic performance and communicative competence. However, the correlation between linguistic competence, quality of learner utterances, and WTC has not been well examined to date, which is regrettable because we still do not know whether trying to increase students' WTC can lead to better linguistic performance or vice versa. This study aimed to examine the correlation between the degree of state WTC and the quality of L2 utterances, focusing on CAF in each L2 utterance because CAF is thought to be an indicator of L2 speakers' proficiency levels (Ellis & Barkhuizen, 2005; Housen & Kuiken, 2009). This study also looked at the effects of speakers' proficiency levels on the relationship between the degree of WTC and CAF. The following research questions were formulated:

RQ 1: Is the quality of L2 utterances in terms of CAF different based on the level of WTC?

RQ 2: Are there any differences in the correlation between the quality of utterances and level of WTC based on speakers' proficiency levels?

### **3. Materials and Methods**

#### **3.1 Participants**

The researcher recruited students from his class to participate in the study. Five students volunteered, of whom two low-intermediate and two advanced speakers of English were asked to participate. Pseudonyms were used to protect their privacy and maintain confidentiality. The participants were college students at a national university in western Japan. Maki and Masa were second-year students majoring in music and mathematics, respectively. Kumi was a fourth-year student and Koji was a graduate student majoring in English. Koji held the first grade and Kumi the pre-first grade in the Society for Testing English Proficiency (STEP) Test.<sup>2</sup> Proficiency levels were determined based on the participants' English qualifications and the author's observation, analysis and evaluation of the participants' performance in class, including speaking, listening, writing, and reading. The participants signed a confidentiality agreement and gave their consent for the researcher to record their interactions on video and audio for future examination in the study.

#### **3.2 Procedure**

This study included two sessions in which participants interacted one-on-one with the researcher, as Table 1 illustrates. An audio recorder and digital video camera were used to record both sessions. Participants engaged in a visual description activity that was adapted from the STEP test for second grade during the first task of the session (see Appendix). Participants in the activity were shown a horizontal sequence of four images and asked to explain the narrative they represented. From a conceptual and linguistic standpoint, the content for this picture description activity was carefully chosen to not require too much of their attention. A semi-structured interview in English that was part of the first session's second task addressed participants' questions about their everyday lives, including their interests, studies, families, and aspirations for the future. This task was tied to the first task's narrative. The second assignment was more open and freer, allowing participants to communicate their feelings, ideas, etc., in contrast to the first task, which was a structured activity in which they had to describe the pictures as accurately as they could.

The following measure was adopted in the second session to rate variations in their WTC. (1) Following the first session, all participant and researcher-produced utterances were transcribed from the video and audio recordings. (2) In the second session, while watching the video clip of the first session, the participants were asked to rate their WTC

for each utterance. A five-point Likert scale was used to rate WTC, with 1, 2, 3, 4, and 5 denoting significantly decreased, slightly decreased, steady, slightly increased, and significantly increased WTC, respectively. They rated their WTC at each instance when they or the researcher produced an utterance. The participants were only instructed to note instances showing fluctuations and not instances of "3 = stable" while doing this. In the transcription, the WTC point was written by the participants next to the relevant sentence, each time it changed. Following the self-rating, a stimulated recall interview was conducted to delve deeper into the reasons behind the changes. By watching the videotaped activity and comparing it with their WTC ratings as recorded in the transcription, the participants were instructed to explain why their WTC had changed. The video was halted during their explanation. The interviewer (author) did not engage in conversation while listening to this recollection, in order to prevent leading inquiries (Egi, 2008; Gass & Mackey, 2000).

**Table 1**

*Participant Information*

Pseudonym	Gender	Age	Major	English Proficiency Level
Maki	Female	20	Music	Low-intermediate
Masa	Male	20	Mathematics	Low-intermediate
Kumi	Female	22	English	Advanced
Koji	Male	24	English	Advanced

### 3.3 Analysis

The CAF (complexity, accuracy, and fluency) of each utterance was assessed to evaluate the quality of L2 utterances, as CAF is considered an indicator of L2 speakers' competency (Ellis & Barkhuizen, 2005; Housen & Kuiken, 2009). There are two types of complexity: Cognitive, which refers to the relative difficulty with which language features are processed in L2 performance and acquisition, and Linguistic, which refers to the complexity of the L2 features that the speaker generates (DeKeyser, 1998; Housen & Kuiken, 2009; Williams & Evans, 1988). Based on Housen and Kuiken (2009), the present study defines linguistic complexity as complexity considering the level of speakers' interlanguage system. To measure complexity, the mean length, or the average number of words, in the AS-unit was measured, following Ahmadian (2011). The validity

of AS-units was demonstrated in previous studies (e.g., Foster et al., 2000).

Accuracy refers to how well L2 speakers reproduce the target language without deviating from a set of standards. According to Skehan (1996), accuracy is the degree to which the target language (TL) is created in alignment with the TL's rule system. To measure accuracy, the rate of error-free AS-units was calculated by dividing the total number of AS units by the number of correct (error-free) AS-units in terms of syntax, morphology, lexicon, tense, aspect, modality, and subject-verb agreement. The rate of error-free AS-units rather than clauses was employed in this study as the AS-unit is adequate for assessing verbal utterances (Foster et al., 2000). Errors in the use of articles were not counted as it is difficult to use articles correctly even for proficient learners and judging the correctness of use without understanding the speaker's intention is challenging. Fluency was defined as an "automatic procedural skill," and fluent speaking as "automatic, requiring little attention or effort" (Schmidt, 1992, p. 358). As each utterance produced by the speakers was short, the average number of syllables produced in the utterances was calculated (e.g., Freed, 2000; Lennon, 1990; Towell et al., 1996).

## **4. Results and Discussion**

### **4.1 Results of the Quantitative Analysis**

During the first session, Maki, Masa, Kumi, and Koji produced 75, 102, 130, and 138 utterances, respectively. The advanced speakers produced more utterances than the low-intermediate speakers. WTC fluctuated throughout the sessions. Table 2 shows the frequency of WTC scores for each speaker. Advanced speakers recorded lower state WTC than intermediate speakers. This may have been because the advanced speakers' stable WTC was higher than that of the low-intermediate speakers, resulting in fewer recordings of increased WTC when compared to the low-intermediate speakers.

**Table 2***Procedure Sequence*

	First session	Second session
Date	Maki, Masa: February 28 Kumi, Koji: February 26, 2020	Maki, Masa: March 18 Kumi, Koji: March 24, 2020
Activity	Oral tasks: Picture description, Interview	WTC rating and stimulated recall
Time length	Maki, 19 mins. Masa, 20 mins, Kumi, 17 mins, Koji, 17 mins.	Maki, 41 mins. Masa, 44 mins, Kumi, 50 mins, Koji, 48 mins.

RQ1 asked if the quality of L2 utterances differed by WTC level. Tables 3 to 6 show the scores of CAF by WTC level.

**Table 3***Frequency of WTC Scores*

WTC score	Frequency			
	Maki	Masa	Kumi	Koji
5	23(31%)	46(45%)	0	0
4	21(28%)	23(23%)	29(22%)	6(4%)
3	16(21%)	18(18%)	46(35%)	121(88%)
2	9(12%)	15(15%)	39(30%)	11 (8%)
1	6 (8%)	0	16(12%)	0
Total	75	102	130	138
Average WTC	3.8	3.98	2.68	3.00



**Table 4***Descriptive Statistics on CAF by the Level of WTC for Maki*

Maki	n		Complexity		Accuracy		Fluency	
			(n= AS-units)		(n= AS-units)		(n= utterances)	
WTC			Mean	SD	Mean	SD	Mean	SD
score	AS-units / utterances		95% CI		95%CI		95%CI	
5	25	23	3.28	2.460	0.84	0.303	4.826	3.472
			[2.32, 4.24]		[0.721, 0.959]		[3.41, 6.25]	
4	23	21	2.522	2.206	0.783	0.444	3.545	4.053
			[1.62, 3.42]		[0.603, 0.965]		[1.85, 5.23]	
3	16	16	2.563	1.731	0.813	0.390	4.188	2.674
			[1.44, 3.6]		[0.622, 1.00]		[2.88, 5.5]	
2	10	9	3.3	2.043	0.5	0.497	3.667	3.163
			[2.03, 4.57]		[0.192, 0.808]		[1.6, 5.74]	
1	6	6	2.667	1.106	0.333	0.373	2.667	1.106
			[1.78, 3.55]		[0.035, 0.631]		[1.78, 3.55]	

**Table 5***Descriptive Statistics on CAF by the Level of WTC for Masa*

Masa	n		Complexity		Accuracy		Fluency	
			(n= AS-units)		(n= AS-units)		(n= utterances)	
WTC			Mean	SD	Mean	SD	Mean	SD
score	AS-units/ utterances		95% CI		95%CI		95%CI	
5	48	46	2.417	1.784	0.854	0.477	2.957	2.562
			[1.91, 2.92]		[0.72, 0.989]		[2.22, 3.7]	
4	26	23	4	1.889	0.654	0.460	5.174	4.187
			[3.27, 4.73]		[0.477, 0.831]		[3.46, 6.88]	
3	20	18	2.6	1.646	0.75	0.416	3.667	2.738
			[1.88, 3.32]		[0.568, 0.932]		[2.41, 4.93]	
2	15	15	2.267	2.026	0.467	0.5	4.2	3.282
			[1.24, 3.3]		[ 0.214, 0.72]		[2.54, 5.86]	
1	0		-	-	-	-	-	-

**Table 6***Descriptive Statistics on CAF by the Level of WTC for Kumi*

Kumi	n		Complexity		Accuracy		Fluency	
			(n= AS-units)		(n= AS-units)		(n= utterances)	
WTC			Mean	SD	Mean	SD	Mean	SD
score	AS-units/ utterances		95% CI		95%CI		95%CI	
5	0		-		-		-	
4	32	29	5.241	3.617	0.844	0.378	6.448	4.680
			[3.99, 6.49]		[0.713, 0.975]		[4.75, 8.15]	
3	50	46	3.68	3.476	0.793	0.398	4.934	4.546
			[2.72, 4.64]		[0.683,0.903]		[3.6, 6.26]	
2	42	39	3.286	2.495	0.786	0.382	4.6	3.700
			[2.53, 4.04]		[0.67, 0.902]		[3.45, 5.75]	
1	17	16	3.118	2.909	0.706	0.464	3.875	3.295
			[1.74, 4.5]		[0.485,0.927]		[2.26, 5.49]	

**Table 7***Descriptive Statistics on CAF by the Level of WTC for Koji*

Koji	n		Complexity		Accuracy		Fluency	
			(n= AS-units)		(n= AS-units)		(n= utterances)	
WTC			Mean	SD	Mean	SD	Mean	SD
score	AS-units/ utterances		95% CI		95%CI		95%CI	
5	0		-		-		-	
4	9	6	6.44	2.754	0.778	0.186	12.5	3.742
			[4.64, 8.24]		[0.656, 0.9]		[9.51, 15.5]	
3	143	121	5.098	3.833	0.909	0.190	7.429	6.133
			[4.46, 5.72]		[0.878, 0.94]		[6.34, 8.52]	
2	12	11	8.417	4.442	0.833	0.208	5.0	2.77
			[5.91, 10.9]		[0.715, 0.951]		[3.28, 6.42]	
1	0		-		-		-	

In addition, correlation analyses were conducted to examine the relationship between WTC and complexity, accuracy, and fluency.

**Table 8**

*Pearson's Correlation Coefficients of WTC With CAF*

	Complexity	Accuracy	Fluency
Maki	.144	.376	.144
Masa	-.004	.167	-.149
Kumi	.179	.038	.179
Koji	.009	.035	.235

Only Maki's accuracy and Koji's fluency showed a weak correlation. Complexity for all speakers showed no correlation with the degree of WTC. Masa's WTC showed a negative correlation with complexity and fluency. There was no correlation between the degree of WTC and the quality of utterances. However, Maki and Masa's means of accuracy scores may imply a correlation between accuracy and WTC with no overlap in confidence intervals recorded between 5 and 1 points in WTC by both. Kumi and Koji's fluency scores may imply a correlation with WTC, as higher average scores were in accordance with higher WTC, and there was no overlap in confidence intervals between 4 and 3, and between 4 and 2 for Koji. RQ 2 explored differences in the correlation between the quality of utterances and WTC level based on speakers' proficiency levels. Table 8 shows the combined results of the two lower-intermediate speakers, whereas Table 9 shows the combined results of the advanced speakers.

**Table 9***Descriptive Statistics on CAF by the Level of WTC for Low-intermediate Speakers*

Maki Masa	and	n	Complexity		Accuracy		Fluency	
			(n= AS-units)	(n= AS-units)	(n= AS-units)	(n= utterances)		
WTC score		AS-units / utterances	Mean	SD	Mean	SD	Mean	SD
			95% CI	95%CI	95%CI			
5	74	69	2.676	2.096	0.838	0.356	3.58	3.028
			[2.2, 3.15]		[0.757, 0.919]		[2.87, 4.29]	
4	49	44	3.347	2.182	0.714	0.452	4.378	4.202
			[2.74,3.96]		[0.587, 0.841]		[3.15, 5.61]	
3	38	34	2.447	1.689	0.737	0.302	3.912	2.716
			[1.91, 2.98]		[0.641, 0.833]		[3.0, 4.83]	
2	25	24	2.76	2.071	0.52	0.489	4.125	3.257
			[1.95, 3.57]		[0.328, 0.712]		[2.83, 5.42]	
1	6	6	2.667	1.106	0.333	0.373	2.667	1.106
			[1.78, 3.55]		[0.035, 0.631]		[1.78, 3.55]	

Table 10 shows the results of the analyses that examined the correlation between WTC and CAF.

**Table 10***Descriptive Statistics on CAF by the Level of WTC for Advanced-Speakers*

Kumi		Complexity		Accuracy		Fluency		
and	n	(n= AS-units)		(n= AS-units)		(n= utterances)		
Koji								
WTC	AS-units / utterances		Mean	SD	Mean	SD	Mean	SD
score			95% CI		95%CI		95%CI	
5	-	-	-	-	-	-	-	-
4	41	35	6.42	2.096	0.789	0.356	11.538	3.028
			[5.48, 7.36]		[0.629, 0.949]		[9.89, 13.2]	
3	193	167	4.731	3.585	0.876	0.272	6.73	5.828
			[4.22, 5.24]		[0.838, 0.914]		[5.84, 7.62]	
2	54	50	4.426	3.162	0.796	0.358	4.38	3.53
			[3.58, 5.27]		[0.701, 0.892]		[3.99, 4.79]	
1	17	16	3.118	2.909	0.706	0.464	3.875	3.295
			[1.74, 4.5]		[0.485, 0.927]		[2.26, 5.49]	

Table 11 shows the results of the correlation analyses that examined the correlation between WTC and complicity, accuracy, and fluency.

**Table 11***Pearson's Correlation Coefficients of WTC With Complexity, Accuracy, and Fluency by Proficiency Level*

	Complexity	Accuracy	Fluency
Lower-intermediate (Maki and Masa)	.041	.264	-.016
Advanced (Kumi and Koji)	.127	.078	.200

As seen in Table 11, the level of complexity and fluency of utterances produced by low-intermediate speakers were not correlated with the degree of WTC. However, higher WTC was correlated with higher average accuracy scores with no overlap in confidence intervals between scores 5 and 2, 5 and 1, 4 and 2, and 4 and 1. Pearson's correlation coefficients recorded a weak correlation among these variables. These results suggest that the accuracy of utterances produced by low-intermediate speakers was somewhat correlated with the degree of WTC.

Although the average scores of complexity and accuracy for advanced speakers were not correlated with the degree of WTC, higher fluency scores were correlated with higher WTC. There was no overlap in confidence intervals between scores 4 and 3, 4 and 2, 4 and 1, 3 and 2, and 3 and 1, with a weak correlation between them. These results indicate a positive correlation between the degree of WTC and the fluency of utterances produced by advanced speakers.

## **4.2 Results of the Qualitative Analysis and Discussion**

The quantitative analysis did not indicate a correlation between the degree of WTC and the quality of L2 utterances produced by EFL speakers. However, positive correlations were established in the follow-up analysis, and more in-depth qualitative analyses revealed a few possible correlations in specific areas.

### **4.2.1 Accuracy of Low-intermediate Speakers and Correlation With WTC**

Pearson's correlation coefficients of WTC with accuracy for low-intermediate speakers reported a weak correlation with some supporting data on confidence intervals, suggesting that accuracy may be correlated with the WTC of low-intermediate speakers. Qualitative data included interactions between the participant and interlocutor and the participants' responses in their interviews. Interview data were translated from Japanese to English by the researcher.

Excerpt 1

Maki: Mr. and Mrs. Sato... went to... went to a hotel in winter vacation. (WTC 5)  
(Stimulated recall interview): *I spoke English correctly and with confidence.*

Excerpt 2

Masa: One evening, Mr. and Mrs. Sato arrived at their hotel on their winter vacation (WTC 5).  
(Stimulated recall interview): *I was confident that my English was correct.*

In the excerpts, Maki and Masa recorded high WTC when they felt confident in the accuracy of their English. In the following two excerpts, Maki first recorded low WTC. However, after corrective feedback that helped her produce accurate expressions, her WTC increased.

#### Excerpt 3

Maki: But, last... last night (WTC 1)

(Stimulated recall interview): *I didn't know what to say, but, anyway, I said it with some uneasiness.*

Researcher: Previous night.

Maki: Previous night (WTC 4)

(Stimulated recall interview): *I was glad to know the right expression.*

#### Excerpt 4

Maki: Net? (WTC 1)

(Stimulated recall interview): *I knew this was not correct English.*

R: Ah, on the Internet

Maki: On the Internet. (WTC 4)

(Stimulated recall interview): *I felt relieved that I could speak correctly here.*

Similarly, Masa's WTC increased when he succeeded in producing correct English.

#### Excerpt 5

Masa: Ah, he, he thought... he enjoy ski. (WTC 2)

(Stimulated recall interview): I didn't have confidence in my English to say “「スキーを楽しんだ」 (spoken in Japanese, meaning “enjoyed skiing”), so I felt a little bit worried.

R: He enjoyed skiing?

Masa: Enjoyed skiing. (WTC 5)

(Stimulated recall interview): *I learned the correct words, so my motivation increased.*

In these excerpts, the lower-intermediate speakers' WTC increased when they felt confident about the accuracy of their utterances. This is in line with Eddy-U (2015), who argued that self-confidence plays an important role in the fluctuation of state WTC. Kang (2005) pointed out the sense of security – feeling safe from anxiety or fear during L2

communication – as a psychological condition that affects the fluctuation in WTC or state WTC. Excerpts 3, 4, and 5 indicate that the speakers had low WTC when they felt a sense of unease, lack of confidence or worry, and awareness that their English was incorrect. However, after producing correct utterances with the interlocutor’s help functioning as scaffolding, their WTC increased. These results show that being able to speak accurately can reduce their anxiety and improve the sense of security and confidence for lower-level speakers, leading to higher WTC. This is compatible with MacIntyre et al. (1998), in that PCC and absence of CA are directly associated with WTC, indicating that greater communication confidence and lower levels of communication apprehension increase the likelihood of state WTC.

Excerpt 6

R: Could you tell me your future dream?

Maki: I want to be teach. (WTC 3)

R: You want to be a teacher.

Maki: A teacher. (WTC 5)

(Stimulated recall interview): *I felt I should be grammatically correct, and I did it.*

These results show that lower-level EFL speakers can increase their self-confidence and WTC by producing linguistically correct utterances. MacIntyre et al.’s (1998) multilayered pyramid model (Figure 1) identified 12 factors and 6 layers influencing WTC among L2 speakers. “Self-confidence” corresponds to L2 skills and language anxiety and can be found in the fourth layer and is considered a precondition for WTC. Based on this pyramid model, “self-confidence” caused by accuracy can be considered to have directly contributed to the higher WTC of intermediate speakers in this study.

Nussbaum and Dweck (2008) suggested that learners are highly motivated if they feel that they are constantly developing and achieving their desired outcomes after putting in necessary effort. Yamaoka (2018) used the self-determination theory (Deci & Ryan, 2002) and found that remedial EFL students in Japan experienced a stronger sense of fulfillment by achieving their desired performance, which affected their motivation more than autonomy and relatedness did. Similarly, the lower-intermediate speakers in the current study had higher WTC when they produced linguistically accurate utterances successfully, which was their desired outcome.



#### 4.2.2 Fluency of Advanced Speakers and Correlation With WTC

Pearson's correlation coefficients of WTC with fluency for advanced speakers showed a weak correlation with some supporting data on confidence intervals. This suggests some correlation between the degree of WTC and fluency of the advanced speakers. Koji demonstrated a high WTC for 4 six times, when high fluency scores were recorded (average 12.5), with no reports of 5-point WTC.

Excerpt 7

Koji : Ah, one of the important things, I think, is to get important and useful information. (WTC 4)

Excerpt 8

Koji: Yeah, actually, they were very motivated for studying. Probably, I guess, it was rare for them to study. (WTC 4)

In the stimulated recall interview, Koji mentioned that, as there were important messages, he felt that he should let the researcher know his opinion (excerpt 7) and experience and ideas (excerpt 8). He felt highly motivated to speak. Kumi showed higher WTC (4) correlated with higher fluency (16), although her scores were lower than Koji's.

Excerpt 9

Kumi: Because, ah, in this university, I learned French a little. (WTC 4)

(Stimulated recall interview): *I felt I was conveying important information that I wanted to tell.*

In the next excerpt from Koji, the scores for both fluency and WTC were low.

Excerpt 10

R: I wonder why you often use "probably" when you say something.

Koji: I'm not sure... (WTC 2)

R: You probably want to go to the Tohoku area?

Koji: OK. (WTC 2)

R: So, you may, or you may not want to go there.

Koji: Ah, ah, I see. (WTC 2)

R: I wondered why you often use "probably."

Koji: Maybe. (WTC 2)

This excerpt discussed the use of “probably.” However, in the stimulated recall, Koji mentioned that he was not interested in the topic, as he had nothing to say, leading to lower WTC scores and fluency (fewer words or syllables).

These results demonstrated that the advanced speakers’ WTC increased when they were interested in the topic and said what they wanted to say, such as their opinions, experiences, or ideas (Pawlak & Mystkowska-Wiertelak, 2015). This is in line with Sato (2019), which demonstrated high WTC for a Japanese EFL teacher, who was an advanced speaker, while talking about their own hobbies, interests, or opinions to students. Yashima (2009) introduced the notion of an international posture as a future L2 self, suggesting, “English connects us to foreign countries, and with people whom we can communicate with in English, including Asians and Africans” (Yashima, 2009, p. 145). Assuming an international posture, meaningful activities with practical reasons can promote learners’ WTC (Yashima, 2002; Yashima et al., 2004; Yashima, 2009), which implies that the contents of the utterances and not just the language itself, play a vital role. In this study, it can be argued that the contents of the utterance sometimes increased advanced learners’ WTC. Khajavy et al. (2018) examined the correlation between emotions and WTC among Iranian EFL students and found that learners who experience enjoyment show higher WTC, while anxiety reduces it. Similarly, Kang (2005) argued that excitement, or feeling a sense of elation and happiness while speaking, affects WTC. In the present study, Kumi and Koji appeared to enjoy talking about themselves and recorded higher fluency in those conversations. Their fluency scores increased when they talked about topics they were interested in, including sharing important messages, as those utterances were more likely to include more words (or syllables).

Based on MacIntyre et al.’s (1998) pyramid model, it can be argued that, while low-intermediate speakers’ WTC was closely related to “self-confidence,” advanced speakers’ WTC was more directly correlated with the “desire to communicate with a specific person” found in the second layer, possibly because of having higher “self-confidence.”

## **5. Conclusion**

This case study sought to examine the correlation between state WTC and the quality of utterances from the perspectives of CAF. Nobody would deny that one of the main goals in L2 teaching is to educate students to become willing and able to speak in the TL (MacIntyre et al., 1998), with the presumption that higher WTC invites more learning, leading to better performance in the L2. Thus, this study could be considered ambitious in that it attempted to confirm, or rather challenge, the assumption. The results failed to

show a convincing association between high WTC and high quality of utterances, implying that the degree of WTC of EFL learners may not have to be considered as has been done so far. However, a much closer and more detailed analysis of some specific points provided a few hypotheses. Through the examination of overlaps in confidence intervals and qualitative data, it can be hypothesized that there is a certain degree of relation between accuracy and high WTC for lower-level learners, and between fluency and higher WTC for advanced learners. Pedagogical implications can be drawn from the hypotheses.

The results indicated the interplay between WTC and linguistic accuracy of the utterances for lower-intermediate speakers. Thus, in teaching and communicating with lower-level learners, more attention should be paid to their linguistic accuracy. Teachers are encouraged to design a task in which students can produce L2 accurately, provide scaffolding through feedback to help students say what they mean, and teach grammar and the lexical items needed in the task before the activity commences. In teaching higher-level learners, however, rather than focusing on linguistic accuracy, a situation where learners can express their own ideas, opinions, or feelings, should be provided. To improve WTC, teachers can ask genuinely referential rather than display questions, to elicit learners' utterances and encourage more open rather than closed tasks, so that students can express their thinking, imagination, and/or creativity.

This exploratory observational pilot case study is valuable as it sheds light on the association between state WTC and the quality of L2 utterances. It may have questioned a fundamental presumption that WTC in EFL is really important for learning and better L2 performance. The results can be interpreted as affirming or denying accepted beliefs. The hypotheses were set up from the analysis of some parts of the results and the pedagogical implications were suggested. However, this study has a few limitations. First, four interactive activities by four participants were recorded and analyzed, which made it difficult to generalize the results. More data with more participants from different learning backgrounds, English proficiency levels, and personalities, can enhance the rigor of the research. Second, more valid and reliable measurements of CAF may have been implemented. A theoretical framework for the relationship between the degree of WTC and actual performance and the quality of utterances can be examined from wider interdisciplinary perspectives. Thus, there is definitely a need for further study that can overcome the limitations of the current study. However, it is hoped that the current study has paved a path ahead for a new direction in the field.

## Notes

1. This study was a part of a larger project on fluctuations in WTC among Japanese EFL speakers using mixed research methods including quantitative and qualitative analyses. Sato (2020) focused on affective and conditional factors. However, this study focused on the relationship between WTC and the quality of utterances.
2. The STEP is a Japanese non-profit organization, supported by the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT), that administers the STEP test. The test includes listening and writing sections, followed by a speaking test, and is generally considered one of the most reliable and valid English proficiency tests in Japan. MEXT requires Japanese teachers of English to have pre-first-grade scores on the STEP test.

## Additional Note From the Author

As the author of this paper, I would like to extend my gratitude to the readers who have taken the time to engage with this manuscript. I value your feedback and would be grateful for any comments or suggestions you may have for its improvement. Your insights will be invaluable in refining the ideas presented here and contributing to the advancement of this field. Thank you for your attention and support.

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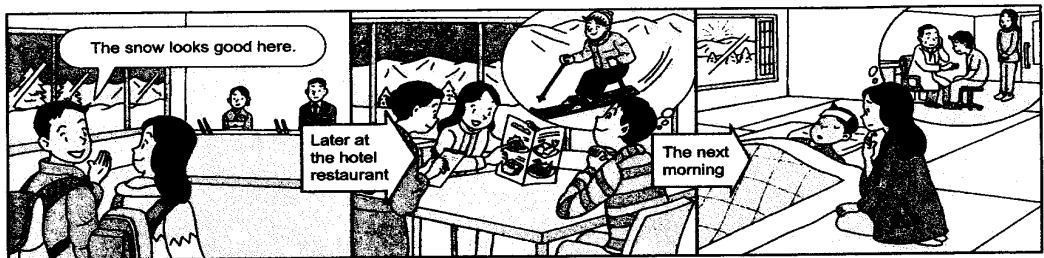
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## Appendix

Picture description activity (adopted from the second-grade STEP test conducted in 2018).

**Your story should begin with this sentence: One evening, Mr. and Mrs. Sato arrived at their hotel on their winter vacation.**



Sample questions from the semi-structured interview:

Have you ever had similar experiences to the story?

What do you usually prepare before going traveling?

(Official permission to use this material was obtained from STEP).