

# Title of Bulletin of Tokyo Denki University, Arts and Sciences

## The Impact of Timed Speaking Activities on L2 Speech Production in The Japanese Context

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### Abstract

Abstract: This paper explores the impact of timed speaking activities on L2 speech production in the Japanese Context. The paper examines the variability in oral performance of 18 EFL students enrolled in a compulsory English-speaking course at Tokyo Denki University. Analysis of the student linguistic performance on timed speaking activities resulted with higher rates of complexity, reduction in accuracy and mixed patterns in fluency. The results contribute to task-based literature and the processing-based and attention theory that enhances the neural processing of relevant features.

**Keywords** : Speaking, accuracy, variability, fluency, complexity

### 1 Introduction

The basic purpose of oral language tests is to sample the behavior of the language so that it can be generalized about the speaker's performance in other situations. During the language test integration phase, the feasibility of the sampling component of the analyzable language building blocks is challenging, and instead the need to investigate the expanded chunks of language is suggested. In addition, the integrated approach often focuses on the candidate's ability to utilize predictive skills to address language redundancy. This predictive ability considered fundamental to language processing is based on of various aspects of the language system (syntax, semantics, and pragmatics) and ongoing language understanding and production.

Variability is one of the most fundamental and pervasive facets of language, and a very prolific area of linguistic research. Variation in language use has traditionally been the focus of both sociolinguistics and psycholinguistics. Within psycholinguistics, the factors and individual

cognitive mechanisms involved in speakers' choices are addressed, and to a smaller degree also those involved in listeners' coping with variation in their linguistic input.

Language variability as a concept originated within sociolinguistics has been applied to in classroom language research by Elaine Tarone (1983, 1985, 1988) as well as task-based models (Skehan, 1998). However, task-based variation has been strictly limited to task elicitation methodology by which the teacher gets the learners to give information on their own rather than providing it to them. Linking language variability studies to language testing is greatly facilitated by the discussion of various paradigms for examining variability provided by Tarone (1983) and Ellis (1985b). Tarone distinguishes three paradigms: homogeneous competencies, dual competencies, and ability continuity, to which Ellis adds multiple competencies paradigms.

Homogeneous paradigm has a clear impact on language testing. The paradigm is homogeneous

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and emphasizes the ability to generally guide language behavior. This is best assessed by a total score for a series of tests, possibly generated by a skill-by-skill matrix, or instead by a single score obtained from a representative highly integrated redundant test. Insist on a single aspect of language competence factor and is ideal for a homogeneous ability paradigm. The data is intuitive data considered as the most obvious reflection of potential capability without intrusion of performance errors. This appears to justify the indirect nature of many test methods associated with the era of psychometric and integration, and such methods provide the most faithful route to the underlying homogeneous ability. The dual knowledge paradigm also clearly affects language testing. Krashen (1981) argues that performance based on learning and acquisition yields two different accuracies, so that learning-based and monitoring performance is a syntax that is easy to understand and easy to implement.

However, for variability studies, the third and fourth paradigms are clearly more relevant to language testing. The nature of the continuum of style ranges is linked to the grammar that overlaps at each point of the continuum by variable and categorical rules. The range of styles is limited at one end by the language and little attention is paid to speech. There is also a formal style that pays the most attention to speech. Acquisition occurs from forms generated spontaneously in the native language, or through the diffusion of new forms originally generated in formal style, but not formal. To spread to the performance of the form, and in the last example, it appears in informal oral production (Hyltenstam, 1978, p. 6). Skehan (1987) argues that fourth paradigm, multiple competence, was introduced by Ellis (1985b) following Selinker and Douglas (1985). It proposes that second language acquisition

involves the construction of several interlanguages that are separate but overlapping as systems. Because such systems are domain specific, we must identify areas of language use that need to be investigated separately. Therefore, sampling must cover the relevant domain. Theoretically, such an approach would test English for specific purposes, areas where it is very difficult to reach the appropriate level of specificity (Criper, 1982; Skehan, 1984b), and clearly separated identified domains.

The four paradigms above provided a very useful framework that highlights the problems that language testers face when deciding how to obtain representative data. As Tarone (1983) argues, the homogeneous ability and the dual knowledge approach are important on their own, but less significant to variability. The ability continuum and multiple competence approaches are much more useful, for situations that need to be sampled when obtaining something like a comprehensive view of an individual's performance. Therefore, this paper examines the variability in one-minute speech performance of EFL students enrolled in a compulsory English-speaking course at Tokyo Denki University.

## **2 Methodology**

### **2.1 One-minute speech task**

The one-minute duration is inspired by the work of William James (1890) on understanding perception of time in terms of perception of change. Perceived changes play a role in the level of our consciousness. And discriminations between durations of events. In his view, humans can maintain a constant consciousness in time duration ranges from a few seconds to one minute. However, the one-minute duration is articulated in the framework of contemporary

functionalist accounts of mental qualities and higher-order theories of consciousness. Japanese students tend to have anxiety about speaking in front of other students and they are more likely to be afraid of taking risks. In classrooms, Japanese students are sometimes characterized as passive, introverted, unmotivated, inactive, and unresponsive (Hadley & Evans, 2001). Japanese students tend to be self-critical, blaming themselves for their failures more than they admire themselves for their successes (Kurman, Tanaka, & Elkoshi, 2003).

The one-minute speech assignment inspired from a combination of Exposure and Response Prevention (ERP), and Self-disclosure (SD) methods that highly motivate Japanese learners to produce much better-spoken and written output because of the challenging environment, and timed self-generated speeches. Students will deliver their speeches with gradual physical and cognitive exposure to their classmates. Each stage of exposure can be given 3-4 weeks (depending on class level of foreign language anxiety). Each class began by peer-to-peer evaluation for student written scripts using a rubric included speech writing format, topic sentence, supporting sentences, supporting details, concluding sentences, unity, and accuracy.

#### Graded exposure

##### *Stage 1*

After the peer-to-peer evaluation for student written scripts using the scoring rubric, several ranges from 20-30 students in each class delivered their individual speeches by reading aloud their pre-prepared written scripts while sitting in their seats in the classroom as shown in figure 1. Students delivered different speech each week on a class discussion prompts,

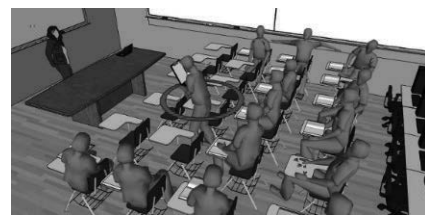
demonstrating their ongoing language improvement.



**Figure 1: Stage 1**

##### *Stage 2*

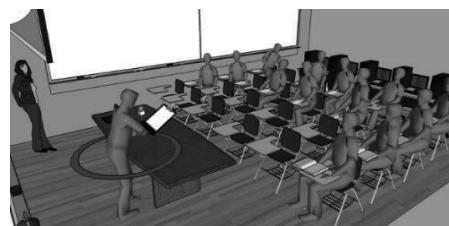
Students were asked to read aloud their pre-prepared written speeches while standing next to their seats in the classroom as shown in figure 2. Standing up for one minute made the student more visible to his classmates and the teacher and gradually provides more confidence to the student.



**Figure 2: Stage 2**

##### *Stage 3*

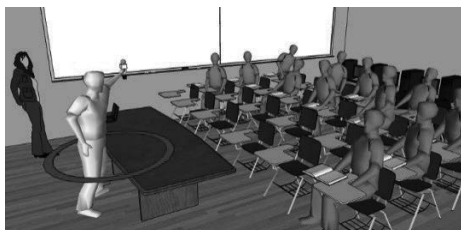
Students were asked to read aloud their pre-prepared written speeches while standing in the teacher position in front of all students in the classroom as shown in figure 3. Standing up in the teacher position provided signals of leadership to the student subconscious mind. This gradually led to feeling of excitement and taking control, which in turn will trigger the desire to impress his listeners.



**Figure 3: Stage 3**

##### *Stage 4*

Students were asked to generate their speeches without reading their scripts and deliver them while standing in the teacher position in front of all students in the classroom using the eye contact and body language as shown in figure 4. However, students could use notes if needed.



**Figure 4: Stage 4**

### *Stage 5*

Japanese Karaoke is a form of popular entertainment, originally from Japan, in which recordings of the music but not the words of popular songs are played, so that people can sing the words themselves using a microphone and public address system. At the start of the semester, students were asked to use microphones to amplify all speeches. The microphones will provided a feedback loop through Q&A with the teacher and other students in two minutes time after each speech that will help students to monitor themselves and others as speakers and listeners and behave individually and together in ways, they feel focused and productive discussions possible as shown in figure 5.

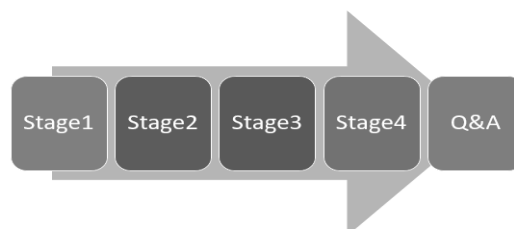


**Figure 5: Stage 5**

Overall, completing the graded exposure stages shown in figure 5 enabled students to be more self-confident. The activities implement the technique of task variation with links between teacher-guided learning and learner-initiated

activities outside class, which require the student to pay attention to details and develop the ability to work independently with motivation triggered by his/her self-disclosure and the desire to appear to others in the classroom as intelligent, knowledgeable, and capable. In other words, the goal is to encourage the student to say to him/herself: “I am excited because my teacher and classmates listen to me, read and appreciate my comments and postings. They make it possible for me to express myself and my views. I’m going to give them the very best I possibly can.”

In this study, facing fears in a gradual and consistent manner is the way to overcome fears and foster autonomy through implementing two methods from behavioral psychology. The first is Exposure and response prevention (ERP), and the second is Self-disclosure (SD) graded exposure stages shown in Figure 6. Students gradually acquired the ability to deliver speeches with confidence that lead to the last interactional stage of Q&A through the semester.



**Figure 6: Graded exposure stages**

## 2.2 Data collection

Data collection included recorded one-minute speeches (stage 4) from 18 EFL students enrolled in a compulsory English-speaking course at Tokyo Denki University. There was no drastic classroom change to the normal classroom routines and physical setup; and the researcher’s intervention was minimal during the episodes of data collection except in the

preparation of a digital recording device.

In this study, three main variables were analyzed. The flow is represented by three indicators. Reformulation per minute as "repair flow" (Skehan, 1996), pause per minute as velocity (1 pause > 0.5 seconds), and speech rate per minute (The number of syllables divided by 60 then by 6 to calculate the rate for every 10 seconds). The complexity was based on the organizational quality of voice performance. Using measures in minutes and words, the amount of subordination and vocabulary density was assessed, respectively. Accuracy was assessed by measuring error-free clauses per minute (main and/or error-free subphrases), grammatical errors per minute, and lexical errors per minute.

### 3 Procedures

All the data samples considered for analysis were recorded and transcribed according to standard orthography. A total of 18 transcripts were coded according to a coding scheme designed by the researcher. The one-minute span of every transcript was divided into two phases: an 'onset phase' which covers the first 30 seconds and a 'cutoff phase' which represents the last 30 seconds. Table 1 displays average frequency scores on three measures of fluency: reformulations, pauses and speech rate. As for the measure of reformulations, related scores follow a steady increase in frequency towards the end of performance. The highest of all is the time span between seconds 40 and 50 where the lowest is between seconds 20 and 30. The number of pauses per minute, an index of undesirable fluency (Skehan, 1996), decreased gradually especially at the very beginning (seconds 1 and 20) and the very end (minutes 50 and 60). The improvement of speech rate was subject to fluctuations especially at the time

interval of minutes 20 and 30. Improvement, instead, peaked at the level of minutes 40 and 50.

Variable/ 10 seconds	Onset Phase				Cutoff Phase			
	1-1 0	10- 20	20- 30	%	30- 40	40- 50	50- 60	%
Reformul ations	0.2 0	0.2 9	0.4 5	6.1	0.5 3	0.7 4	0.8 0	11. 51
Pauses	1.5 9	1.4 0	1.2 6	11. 37	1.0 3	0.9 3	0.7 5	5.2 9
Speech rate	20. 40	20. 50	20. 12	7.3 1	20. 40	24. 60	25. 40	9.4 7

**Table 1: Mean scores for fluency measures**

Variable/10 seconds	Onset Phase				Cutoff Phase			
	1-1 0	10-2 0	20-3 0	%	30-4 0	40-5 0	50-6 0	%
Subordinat ion	0.0 5	0.09	.08	4.8 2	0.14	0.15	0.19	11.8 7
Words/T-un it	2.0 8	2.26	2.44	7.1 7	2.65	3.08	3.26	9.49

**Table 2: Mean scores for complexity measures**

In terms of accuracy, Table 3 shows findings corresponding to error-free clauses, grammatical errors and lexical errors.

Variable/ seconds	Onset Phase				Cutoff Phase			
	1- 10	10- 20	20- 30	%	30- 40	40- 50	50- 60	%
Error-free Clause	0.12	0.09	0.07	10.58	0.06	0.05	0.04	6.07
Gram. Errors	0.39	0.54	0.75	6.52	0.83	0.88	0.89	10.14
Lexical Errors	0.09	0.17	0.41	3.65	0.67	.005	0.88	13.01

**Table 3: Mean scores for accuracy measures**

#### 4 Conclusion

Based on these findings, this study supports revision of the variability structure in SLA studies. This study is based on a processing-based approach (Skehan, 1998) and a definition of variability beyond the early applications advocated by Tarone (1983, 1985, 1988). The above assignment process was guided by a variable effect size with a task factor. Similarly, this definition of data-driven variability is supported by a conclusion based on Robinson's (1995) experience that attention can lead to exhaustion. In order to examine the relationship between timed speaking activities and task-based variability, we need to review previous finding from all speaking tasks designed over the past three decades. Further investigation is needed to identify the task type that can lead to a particular outcome, as well as the impact of timed activities, individual differences, etc.

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