

# Investigating Effects of a Closely Linked Four-Skills Approach on English Speaking Fluency Development

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**Abstract**—This paper presents the results of an investigation into the effects of a teaching approach that integrates the four skills based on linked-skills tasks, i.e., an approach that employs a sequence of tasks based on the same text but using different language skills, on English fluency in Japanese university classrooms. Students were instructed to watch an easy news clip, then read the text, answer comprehension questions, write a summary and reaction, and speak about it to a few partners. The teaching procedure includes such fluency-enhancing elements as recycling and deep processing of vocabulary (i.e., using words in multiple contexts), using formulaic sequences, and automatization. Participants in this study were second-year upper-intermediate level English majors taking a Media English course. Classes met twice a week for the academic year. Quantitative data were gathered from tests administered at the beginning and at the end of the year. Speaking fluency was measured using an interview test that assessed the rate of speech and a standard college speaking test. Results showed that speaking fluency significantly improved as measured by both tests, thus lending support to the adaptation of a skills-integrated teaching approach.

**Index Terms**—*automatization; speaking fluency; a linked four-skills teaching approach; formulaic sequences*

## I. INTRODUCTION

Little research on systematic approaches that enhance speaking fluency in ESL and EFL contexts has been reported in the second language acquisition literature, and pedagogical efforts to promote speaking fluency have not been clearly understood nor implemented until recently (Nation & Newton, 2009; Rossiter, Derwing, & Manimtim, 2010; Segalowitz, 2010). This is especially true in Japan, where at senior high schools levels, reading and grammar are taught, using Japanese, while the development of listening and speaking skills is still on the periphery of curricula (Murphey, Onoda, Sato, & Takaki, 2012). Thus, speaking fluency development has largely been neglected in Japanese senior high school English language teaching. Even at university levels, where speaking are taught, fluency development has rarely been discussed by practicing educators or incorporated in their teaching.

However, this practice ignores critical skills in terms of second language (L2, hereafter) acquisition. Given that communicative competence is the ultimate goal of language learning (Canale, 1983), it stands to reason that the acquisition of speaking fluency is one of the major goals, in addition to the

development of accuracy (Nation & Newton, 2009). It has long been accepted that speaking fluency is identical to, or is the core of, oral proficiency (Lennon, 1990; Segalowitz, 2010).

A lack of speaking fluency development tasks in language teaching seems to pose a serious problem: Japanese people lag behind an increasingly globalized world that requires high-level English language proficiency, which includes speaking fluency, in order to communicate with people from other countries. Hyme (1972) warns that a lack of speaking fluency can be a cause of misunderstanding in interactions among people from different cultural backgrounds. This is true when interacting with native speakers of English, for example. When faced with communication breakdowns, expressing opinions effectively, so as to repair the breakdowns, requires speaking fluency. Without it, one cannot hold the conversational floor nor have a chance to convey the complete idea; native interlocutors usually do not listen patiently to faltering explanations, but interrupt to help one express the intended message. Native speakers are generally tolerant of slow speech rate, hesitations, and pausing, but these disfluency features may be perceived as annoying (Derwing, Munro, & Thomson, 2007). It stands to reason that in a global age, the Education Ministry in Japan has recently introduced the New Course of Study (2009) that prescribes English language teaching that enables learners to negotiate effectively with people from other countries using English.

These compelling realities appear to legitimize the introduction of pedagogical approaches that enhance speaking fluency in Japanese secondary and university English language teaching.

## II. LITERATURE

### A. L2 Speech Production and Potential Factors for Promoting Speaking Fluency

In exploring factors for enhancing L2 speaking fluency, it is worthwhile to look at the L2 speech production system. The most widely cited model of L1 speech production in the L2 literature is Levelt's (1999) model. However, given the nature of the L1 speech production system, where unconscious processes predominate, the model has constraints in its ability to describe L2 speech production processes. To explicate important processes that are specific to L2 speech, de Bot (1992) adjusted Levelt's model, and it was later modified by Kormos (2006, p.168), as described below.

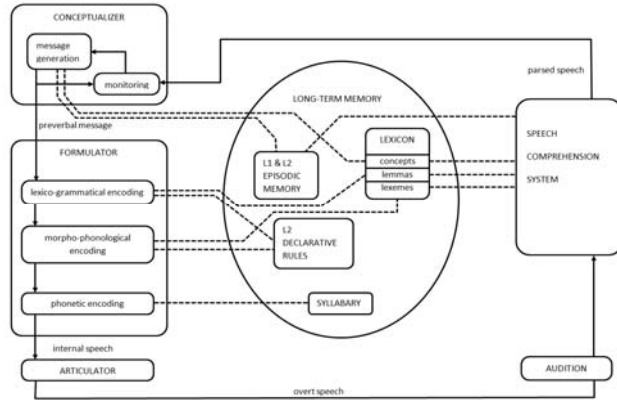


Fig. 1. Bilingual speech production model (Kormos, 2006, p.168)

The model indicates that a series of steps occurs before L2 speech is produced. First, drawing on information in the speaker's long-term memory, the conceptualizer generates the idea to be communicated (i.e., message generation), which turns into a preverbal message. Although this message is based on L1 & L2 episodic memory, lexicon, concepts (i.e., grammatical and conceptual coding), lemmas (i.e., semantic and syntactic information about a word), and lexemes (i.e., morphological and formal information about a word), the formulator selects what best suits the intended message in terms of grammar, word forms, and sounds, and encodes the message lexico-grammatically, morpho-phonologically, and phonetically. This processed message then forms internal speech. Finally, the articulator expresses it audibly (i.e., overt speech).

Thus, the model suggests a number of potential factors that affect L2 speaking fluency. It is necessary to ensure spontaneous access to lexicons, concepts, lemmas, and lexemes as well as to enrich knowledge in long term memory in order to enhance L2 speaking fluency. For actualizing fluent speech, it is necessary that the speaker has rich semantic and syntactic resources and world knowledge, as well as phonological resources. In addition, the model indicates that self-monitoring is occurring during the whole process, which may delay the actualization of fluent speech. However, this potential threat to L2 fluency can be minimized by enriching knowledge in long term memory and automatizing access to that knowledge within the system.

Taken together, the model suggests that automatic and instantaneous access to long-term memory, which includes all the necessary information for generating finely-encoded messages that are also expressed rapidly, is essential for fluent L2 production. This postulation appears to be congruent with the three partially-overlapping types of fluency Segalowitz (2010) addressed in L2 speaking fluency enhancement: (1) cognitive fluency, the efficiency of the underlying process of speech production, (2) utterance fluency, the efficiency of overt speech production, i.e., speech rate and the number and the length of pauses, and (3) perceived fluency, i.e., the

listener's impression regarding efficient language production.

*B. Definitions of Speaking fluency and Measures Employed in the Literature*

Fluency is one of the major issues discussed in L2 literature, and L2 oral proficiency is characterized as spontaneous oral production and considered to be identical to global oral proficiency (Lennon, 1990; Segalowitz, 2010; Wood, 2001). However, carefully examined, the L2 literature poses a complex picture; speaking fluency is defined differently depending on the researcher, which complicates the comparison of research results. This phenomenon suggests that L2 speaking fluency is a complicated construct that includes multiple aspects of speech production. Koponen and Riggenbach's (2000) investigation of a body of research conducted on L2 speaking fluency revealed that researchers employed different operationalizations in their studies. Tavakoli & Skehan (2005) categorized three main definitions and measures of fluency: speed fluency (the number of words spoken), breakdown fluency (total pause time and pause frequencies), and repair fluency (the number of hesitations, repetitions, and false starts). Their categorizations are basically similar to a list of main L2 speaking fluency measures that Kormos (2006) and Lennon (1990) identified: (1) speech rate (words per minute, with self-corrections included or excluded, and syllables per minute or second), (2) pauses (the filled and unfilled pauses as a function of total speaking time), and (3) interruptions (repetitions, hesitations, and self-corrections).

Among a number of fluency definitions and measures, speed fluency, i.e., speech rate, is one of the most frequently adopted and most reliable measures in L2 speaking fluency studies (Schoonjans, Welcomme, Housen, Pierrard, Schoonhere, & Janssens, 2010; Segalowitz, 2010). For example, Kormos and De'nes (2004) investigated potential predictor variables that best distinguish fluent from non-fluent Hungarian L2 learners of English. The results suggested that one of the best predictors of fluency was speech rate. Most importantly, Iwashita, Brown, McNamara, and O'Hagan's (2008) study, which investigated the associations between oral production measures and fluency levels, found that speech rate, unfilled pause rate, and total pause time were significantly related to proficiency levels, and that speech rate was the most reliable measure of the three.

Based on the literature discussed thus far, in the present study, the speed fluency measure (Tavakoli & Skehan, 2005), i.e., speech rate, operationalized as the total number of words per minute after deletion of reformulations, replacements, false starts, and pauses, was employed. To measure fluency from another perspective, fluency section scores from the KEPT speaking test section (the Kanda English Proficiency Test, 2005) were also used. In this test, fluency was operationalized as automatization, or ability to formulate utterances quickly and smoothly, measured through speaking speed, frequency of hesitations, and pauses. The KEPT measure is a global estimate of fluency, as rated by two judges, and is roughly similar to previous operationalizations of fluency.

Interpretations of Segalowitz's analyses above suggest that enrichment and automatization of linguistic and

phonological knowledge is one of the most promising teaching techniques that help promote L2 speaking fluency. In order to facilitate automatization of linguistic and phonological knowledge, the use of formulaic language units and repetition are the two most promising practices.

### C. Key Factors for Improving L2 Speaking fluency

#### 1) Automatization

Automatization is necessary for all kinds of skill development. Anderson's (1983) ACT theory postulates that the development of skills entails the transformation of conscious describable types of knowledge into more unconscious and automatic types of knowledge that can be available at the time of use. The theory implies that it is repeated practice that can facilitate unconscious and automatic processing, and thereby, skill acquisition (DeKeyser, 2007).

It appears that the theory can apply to L2 language learning, particularly fluency development (as well as accuracy development). A host of studies in second language acquisition indicate that there is a robust relationship between automatic processing and speaking fluency development. Abundant literature holds that automatization, facilitated by multiple encounters or retrievals of language items (Nation, 2006; Schmitt & Carter, 2004), enhances L2 speaking fluency (Nation & Newton, 2009; Wood, 2001). Automatic linguistic processing requires little working memory capacity when a particular language unit is retrieved in its entirety. Therefore, attentional resources allow for the processing of other information and enable the speaker to process larger pieces of information efficiently. This mechanism is substantiated by empirical studies on L2 speaking fluency. Favreau and Segalowitz's study (1983) indicated that automaticity was one of the key factors that differentiated between more and less fluent L2 speakers. Towell, Hawkins, and Bazergui (1996) investigated the processes whereby advanced L2 speakers became fluent, as perceived by listeners. The study revealed that the more fluent speakers used formulaic expressions more frequently and effectively than less fluent speakers. Therefore, it appears that L2 speaking fluency was promoted by the automatic retrieval of linguistic knowledge stored through the repeated practice of formulaic language units.

Taken together, automatization of language facilitated by the use of formulaic expressions and repeated practice appears to be important contributors to L2 speaking fluency development.

#### 2) Formulaic Language Units

The use of formulaic language units is effective in promoting L2 speaking fluency. The most widely accepted definition of formulaic sequences in the L2 literature are Nattinger and Decarrico's (1992) and Wray's (2002) definitions of a sequence, whether continuous or discontinuous, that is prefabricated, and therefore, stored and retrieved in its entirety from memory at the time of use. Therefore, formulaic language units cover a wide range of expressions used in English. They include: (a) fillers such as "Well," (b) collocations such as "give a presentation," (c) idioms such as "to be on a safe side," (d) standardized phrases such as "It is not too much to say that..." (e) institutionalized expressions such as "Have a nice weekend.," (f) sentence

builders such as "Nothing is more...than..." and generalized productive frames such as "...years ago."

It has been well documented in L2 literature that internalizing formulaic language units enhances automatization. For example, Boers, Eyckmans, Kappel, Stengers, and Demecheleer's study (2006) demonstrated that automatization of formulaic expressions improved fluency, as well as accuracy, in speech production. The results appear to be congruent with Wray's (2002) postulation that the use of formulaic language units frees up the speaker's memory capacity so that they can "manipulate information, buy time for processing and provide textual bulk, create a shorter processing route, and organize, and signal the organization of discourse" (p. 478). Thus, it appears that formulaic sequences stored in entirety, which can be accessed and retrieved in their entirety, contribute to automatic language production by easing the cognitive load and consuming less working memory capacity.

#### 3) Repetition

As discussed above, internalizing formulaic sequences through repeated practice, as Anderson (1983) and DeKeyser (2007) postulate, is one of the effective approaches to promote automatization of language units and enhance automatic access to mental lexicon. This is supported by connectionist theories (e.g., Ellis, 2002). They posit that repeated access strengthens neural connections to specific mental lexicon, while neural connections which are not repeatedly accessed become weaker and less efficient. From the perspective of pedagogical approaches to fluency development, Nation and Newton (2009) suggest a number of tasks which promote repeated exposure and retrieval of the same information, vocabulary, and multiword units: repeated listening to CDs, focused listening, issue logs, and 4/3/2 (a repeated story-telling task). Finally, it is well documented in L2 literature that from vocabulary learning, spaced retrieval, i.e., repeated learning, for example learning from word cards every day, is one of the best strategies (Beglar & Hunt, 2005; False, 2004; Nation, 2001). Thus, in order to promote automatization, repetition is another critical factor.

### D. Potential Pedagogical Approach to the Development of L2 Speaking fluency

As discussed above, automatization, formulaic sequences, and repetition are potential factors that promote speaking fluency. A possible teaching approach that incorporates these factors comes from Nation and Newton's (2009) four strands of teaching. They claim that the ideal language teaching should be based on the four strands of teaching. These are meaning-focused input, language-focused learning, meaning-focused output, and fluency development. Different kinds of activities can be used within each strand to promote language learning. For instance, when the emphasis is on meaning-focused input, oral introductions and story-listening are useful activities. To promote language-focused learning, fill-in-the-blanks listening comprehension questions, listening for particular words, and dictation are effective tasks. In terms of meaning-focused output, story-telling and story-retelling can be beneficial for language learning. Finally, to develop fluency, activities such as 4/3/2 repeated story telling, listening while

reading, and linked skills, are helpful. Nation and Newton claim that:

A well-planned language course has an appropriate balance of these four strands. It is through these four strands that learners achieve the learning goals of a language course, namely fluent control of the sounds, spelling, vocabulary, grammar and discourse features of the language, so that they can be used to communicate effectively. (p. 2)

Thus, this approach, which includes a fluency development strand, seems to be an effective and feasible teaching framework that can be employed.

Nation and Newton (2009) discuss a few assumptions for fluency development tasks: (1) that activities are meaning-focused, (2) that learners have used, or been exposed to, all the language items previously, (3) that there is support and encouragement for learners to perform at a higher than normal level, and (4) that learners receive a large amount of input or produce a large amount of output.

In other words, essential factors for fluency development include easy tasks, a focus on the message, time pressure, planning and preparation time, and opportunities for repetition of vocabulary and multiword units, all of which contribute to the automatization of language units.

Given these essential factors for fluency development, Nation and Newton champion 4/3/2 and linked skills as two of the most potentially effective tasks.

4/3/2 is a repeated story-telling task. Each student tells a story in their own words to three different people. To the first student, they describe it in four minutes, to the second student, three minutes, and to the third student, two minutes. Literature indicates that 4/3/2 is an effective activity for developing speaking fluency. Earlier, Nation's (1989) study revealed that the activity improved fluency as well as accuracy. More recently, Onoda's (2011, 2012) studies showed that 4/3/2, utilizing news stories, was perceived to be effective by English majors at a university in Japan and enhanced speaking fluency scores, as well as overall speaking skill scores, including accuracy. Thus, this task seems to be worth implementing in the present study.

Linked skills, including at least three different language skills, can be utilized for speaking fluency development. A single piece of subject matter is focused upon for an extended period and engages learners in a sequence of tasks utilizing different skills. For example, students watch an easy TV news clip and answer some comprehension questions, and then they read the script or an easy newspaper article about the same topic. After their comprehension is confirmed, they summarize the story and write their own opinions about the topic. Finally, they talk about the story and their opinions in different pairs a few times. As yet, there has been little research examining the effects of linked-skills approaches on speaking fluency development. Thus a skills-integrated teaching approach based on linked skills is worth exploring in this study as well. In Onoda's (2012) study utilizing the four-skills integrated approach drawing on the four strands of teaching, that included 4/3/2, proved to be effective for speaking fluency development. A more closely linked four-

skills approach including 4/3/2 is worth studying and comparing with other established teaching procedures, especially with a loosely linked four-skills approach.

### *E. Research Question*

To what extent does the speaking fluency of English majors, with upper-intermediate level proficiency, improve when a closely linked four-skills teaching approach is employed in a Media English course over an entire academic year as compared to a loosely linked four-skills approach that has traditionally been adopted?

## III. METHOD

This study investigated the effects of a closely linked four-skills teaching approach on L2 speaking fluency development by comparing the achievements of a control group and an experimental group over an academic year. Data regarding L2 speaking fluency gains in both groups were collected from two sources: (a) the speech rate data (i.e., the number of words per minute rendered by participants after deletion of reformulations, replacements, false starts, and pauses) obtained from story-telling tasks and (b) the KEPT fluency section scores at the beginning and end of the 2012 academic year.

### *A. Participants*

The participants were two classes of second-year English majors taking a Media English course running from April 2012 through January 2013 at a university in Japan. There were 30 students in each class and the participants were between 19 and 22 years old, with 35 female and 13 male students.

At the university, second-year English majors were required to take Media English, Advanced Reading, and Advanced Writing courses. Each course met twice a week for 90 minutes each. There were 60 class meetings during the year for each course. The classes were taught using English as an instructional language. The use of Japanese was prohibited in order to promote interactions in the target language according to English Department policy.

Given that the two classes did not exhibit any statistically significant differences in their L2 speaking fluency in the beginning, they were judged to be equivalent. One of the two classes was designated as the control group, and the other, the experimental group. The control group was assigned a less closely linked four-skills teaching approach with the two last tasks less focused on the text, i.e., discussion and presentation of groups' opinions, which, however, was found to be motivating and effective for improving speaking (Onoda, 2011); and the experimental group was assigned a more closely linked four-skills teaching style with the last two tasks more focused on the text, i.e., summary writing and 4/3/2 story-retelling which are based on the text.

### *B. Tasks Employed in the Course*

The teaching approach employed in the present study, for both the control group and the experimental group, is based on Nation & Newton's (2009) four strands of teaching, including meaning-focused input, language-focused learning, meaning-focused-output, and fluency-development. As presented in Table 1 and the explanations that follow, the same review tasks and the same tasks using a new text were implemented

in both the control and experimental groups. However, the last two tasks employed were different with the two groups: the control group was assigned small group discussion and presentation of groups' opinions which were loosely based on the text, whereas the experimental group was assigned summary writing and 4/3/2 story-retelling, which were closely linked to the text according to Nation and Newton's (2009) guidelines.

TABLE 1  
TASKS EMPLOYED

Tasks	Groups	
	Control group	Experimental group
Common Tasks	Review: TV news clip viewing (L <sup>a</sup> )	Review: TV news clip viewing (L)
	Review: story-retelling in pairs (L&S <sup>b</sup> )	Review: story-retelling in pairs (L&S)
	Review: teacher-led interactive story-retelling (L&S)	Review: teacher-led interactive story-retelling (L&S)
	Review: shadowing exercises (L&S)	Review: shadowing exercises (L&S)
	TV news story viewing with listening comprehension questions (L)	TV news story viewing with listening comprehension questions (L)
	TV news story viewing with gap filling exercises (L&R <sup>c</sup> )	TV news story viewing with gap filling exercises (L&R)
Different Tasks	Article reading (R)	Article Reading (R)
	<b>Discussion (W<sup>d</sup>&amp;S)</b> <b>Presentation of groups' opinions (S&amp;L)</b>	<b>Summary writing (W)</b> <b>4/3/2 story-retelling task (S)</b>

a. L = a listening task, b: S = a speaking task, c. R = a reading task, d. W = a writing task.

Please note that the last two tasks respectively used for the control group and the experimental group, separated as they stand, are different steps of a combined larger task. For the detailed explanations of the tasks, see Appendix A.

C. Measurements of Fluency

Student speaking fluency was measured at the beginning and at the end of the course by using two kinds of tests: a story-telling task and the KEPT speaking test.

1) Story-Retelling Task

There were a number of measurement methods employed by researchers, as with different definitions of speaking fluency. A review of the second language acquisition literature (Segalowitz, 2010) indicates that among them, one of the most feasible and best-received measurement methods is a story-telling task, for example, showing participants a few pictures and asking them to describe what is happening within a given time limit. This was the method used and found to be reliable by Lennon (1990) and was well-received by the participants in Onoda's (2012) study. In this study, a news story-retelling task was employed. The participants were given an easy news story, asked to read and to explain it, and to give their opinions about it within three minutes. Their renderings were recorded and the speech rate (the total words spoken per

minute after deletion of reformulations, replacements, false starts, and pauses) was calculated (See Appendix B).

2) The KEPT Speaking Test

In addition to the story-retelling task, L2 speaking fluency was measured using the fluency section scores of the KEPT speaking test, administered at the beginning and the end of the 2012 academic year. The KEPT speaking test comprises only one section of the KEPT (Kanda English Proficiency Test, 2005) which measures student speaking, listening, reading, and writing skills. The KEPT speaking test is a group test in which three or four students are given a topic (e.g., Please discuss the following with your group members. If you are travelling in a new place by yourself, who would you ask if you did not know how to get someplace? Why? What else could you do to find out how to get there?). The two examiners, native speakers of English, encourage the examinees to talk freely on the topic with one another after one of the examiners initiates the discussion. They may intervene in the discussion when necessary. The examiners observe the interaction and evaluate individual performances using a 0-4 scale (0-0.5 = Unacceptable; 1.0-1.5 = Poor; 2.0-2.5 = Fair; 3.0-3.5 = Very Good; 4.0 = Excellent) and four assessment criteria: (a) pronunciation, (b) fluency, (c) grammar and vocabulary, and (d) communicative effectiveness. The raw scores of the raters are analyzed using the multi-faceted Rasch model. The speaking test yields high internal consistency reliability every year. For example, in 2012, the totals were  $\alpha = .98$  and  $\alpha = .99$  in the fluency section. In this test, speaking fluency is operationalized as automatization (the ability to formulate utterances quickly and speak fluently), the speech rate, and hesitations and pauses.

D. Data Collection Procedure

Speech data were gathered from two classes of the participants in the Media English course using a story-retelling task at the beginning and at the end of the 2012 academic year. The news story-retelling task was employed because students were accustomed to it and no special training was necessary. Student renderings were transcribed and analyzed. The data of the two groups collected at the beginning did not indicate any statistically significant differences in their fluency, as measured by the speech rate (i.e., the total words spoken per minute after deletion of reformulations, replacements, false starts, and pauses) as well as the fluency section scores of the KEPT Speaking Test. The participants met the researcher individually during each of the two data collection periods in the university studio. They were given a handout that included the directions and an easy news story. They were asked to read for two minutes to ensure their comprehension and to prepare their narrations. They were then asked to tell the story, including their opinions. Their narratives were recorded using the university computer, and transcribed and analyzed using computer software. The researcher, working with another English teacher, then checked the transcripts, identified reformulations, false starts, pauses, and errors for data analysis. Reformulations, replacements, false starts, and pauses were deleted from the transcripts. All the analyses were reviewed by the researcher and the English teacher to ensure accuracy. The same procedure was also employed using the same news story to elicit speech data at the end of the course in order to

compare student oral performances. Although one could argue that the practice effect may have had some effect on the performances, realizing that the same story was used after a one-year hiatus, such effects were judged negligible.

IV. RESULTS

This study investigated the effects of a closely linked four-skills approach on L2 speaking fluency development by comparing the achievements of the control and experimental groups over an academic year from April, 2012 to January, 2013. L2 speaking fluency improvements in both groups were measured based on the speech rate (i.e., the number of words per minute rendered by participants after deletion of reformulations, replacements, false starts, and pauses) and by the KEPT fluency section scores at the beginning and end of the year. The descriptive statistics for story-retelling test scores and KEPT Speaking Test fluency section scores are presented in Table 2 and 3.

Two *t* tests were conducted after confirming that the assumptions were met (Green & Salkind, 2005, p. 162). In order to avoid type 1 errors caused by multiple comparisons, the alpha ( $\alpha$ ) level was adjusted for the pairwise comparisons using the Bonferroni adjustment method (Green & Salkind, 2005, p. 417), which required that the reliability index, the alpha ( $\alpha$ ), be divided by the number of comparisons. Given that two comparison were made, a *p* value of less than .025 (.05/2 = .025) was required for significance. Then the two *t*-tests were run.

First, a *t* test was conducted to investigate whether the experimental group significantly improved its speaking fluency, as measured by words per minute, compared with the control group from the beginning to the end of the course. The results indicated that the mean of the experimental group ( $M = 95.70$ ,  $SD = 12.50$ ) was significantly greater than the mean of the control group ( $M = 81.65$ ,  $SD = 9.37$ ),  $t(29) = 6.58$ ,  $p < .001$ .

Another *t* test was then conducted to evaluate whether the speaking fluency of the experimental group, as measured by the fluency section of the KEPT Speaking Test, was significantly greater than that of the control group over the year. The results revealed that the mean of the experimental group ( $M = 2.80$ ,  $SD = .56$ ) was statistically significantly greater than the mean of the control group ( $M = 2.58$ ,  $SD = 0.45$ ),  $t(29) = -6.88$ ,  $p < .001$ .

Thus, these results suggest that due to the closely linked four-skills approach, L2 speaking fluency, according to the two measures, improved.

TABLE 2  
DESCRIPTIVE STATISTICS FOR STORY-RETELLING TASK TEST SCORES

Fluency measure	Story-Retelling test			
	Control group (n=30)		Experimental group (n=30)	
Tests	Pre-test	Post-test	Pre-test	Post-test
<i>M</i>	79.548	81.65	79.80	95.70
<i>SE</i>	0.81	0.81	0.81	0.81
95% CI <sup>a</sup>	[56.58, 91.00]	[56.57, 98.63]	[56.12, 93.21]	[58.00, 114.45]
<i>SD</i>	8.78	9.37	9.45	12.50
Skewness	0.87	-0.83	-0.85	-1.17
SES	0.41	0.41	0.43	0.43
Kurtosis	0.88	-.080	0.28	2.07
SEK	0.81	.081	0.83	0.83

<sup>a</sup>. CI = Confidence interval.

The skewness and kurtosis statistics for the story-retelling task scores was acceptable, and no outliers were identified.

TABLE 3.  
DESCRIPTIVE STATISTICS FOR KEPT SPEAKING TEST FLUENCY SECTION SCORES

Fluency measure	KEPT Speaking Test fluency section			
	Control group (n=30)		Experimental group (n=30)	
Tests	Pre-test	Post-test	Pre-test	Post-test
<i>M</i>	2.54	2.58	2.53	2.80
<i>SE</i>	0.03	0.03	0.03	0.03
95% CI	[2.49, 2.60]	[2.51, 2.64]	[2.49, 2.60]	[2.74, 2.85]
<i>SD</i>	0.54	0.45	0.52	0.56
Skewness	0.52	0.57	0.39	0.59
SES	0.14	0.14	0.15	0.15
Kurtosis	0.36	0.37	0.29	0.24
SEK	0.28	0.28	0.29	0.29

<sup>a</sup>. CI = Confidence interval.

The skewness and kurtosis statistics for the KEPT Speaking Test fluency section was acceptable, and no outliers were identified. In addition, the KEPT Speaking Test fluency section demonstrated a high reliability coefficient of  $\alpha = .99$ .

V. DISCUSSION

This study investigated the effects of the employment of a closely linked four-skills teaching procedure on L2 speaking fluency development in comparison with a teaching procedure

in which the two tasks are more loosely connected. The results indicate that speaking fluency improved over the year due to the closely linked-skills teaching approach. The experimental group, which engaged in summary writing and 4/3/2 story-retelling demonstrated superior performance to the control group. The control group worked on discussions that include some writing and a presentation of the groups' opinions, although all of these tasks were considered to be fluency development tasks, according to Nation and Newton's guidelines (2009). Close analyses of these tasks revealed, however, some of the fundamental differences between the two types of fluency development tasks. In regards to the summary writing and the 4/3/2 story-retelling task, fundamentally, the same information and the same words and expressions, including formulaic language units, were focused upon and repeated throughout the entire teaching procedure. While engaged in the 4/3/2 story-retelling task, students used and listened to the same words and same formulaic expressions a number of times. Their previous renderings provided rehearsal and reflection opportunities for subsequent performances such that the later narratives demonstrated the most fluency, as well as accuracy, among the three trials, an advantage reported by Nation (1989) and Onoda (2011). This means that students were engaged in deep, deliberate processing (Nation, 2001) of the vocabulary and multiword units, including formulaic sequences as well as the discourse, thus further promoting automatization of the language and information. On the other hand, in the discussion and presentation of group members' opinions, which are also considered to be fluency development tasks, learners did not necessarily use all of the same vocabulary and multiword units; only the reporters actively used words and phrases related to the theme, so the contribution to automatization did not appear to be as profound as the summary writing and the 4/3/2 story-retelling tasks. Equally important differences in the features of the teaching procedures were that, unlike the control group which engaged in discussion that included writing, the experimental group was engaged in deep thinking of the main points of the story, their opinions about the issue, and the structure of their summary and opinion writing. The deep thinking activity encouraged the students to deeply process and actively use the information and vocabulary. This might have been another advantage of the closely linked four-skills approach, which Nation and Newton (2009) advocated. In addition, this approach had the advantage of multimodal input and output that is well documented in the L2 literature (Ellis, 2009) and implied in Act Theory (Anderson, 1983; DeKeyser, 2007).

These interpretations can be supported by the results of the questionnaire and interviews administered to the participants on the last day of the course. On the questionnaire, the students were asked to rate tasks on a 5-point Likert scale (1 = Very ineffective, 5 = Highly effective). The 4/3/2 news story retelling task was rated very high ( $M = 4.8$ ,  $SD = .55$ ), which mirrored Onoda's (2011, 2012) studies. Repetition and increased time pressure encouraged students to improve their fluency, as Nation and Newton (2009) claim. Ten students in the experimental group reported that they monitored and reflected on their word use and the structure of the story while and after narrating a story. In subsequent attempts, these

students tried to improve their story-retelling and the summary writing that preceded gave them a good opportunity to think about the structure, vocabulary, and multiword use. In addition, 17 students commented that they felt they were becoming more fluent while engaged in the 4/3/2 story-retelling task, which might have played motivating and confidence-building roles in language learning, which again mirrors Onoda's study (2011, 2012) results. Taken together, the improved performances of the experimental group appear to validate the effects of the use of automatization through the recycling of vocabulary and multiword units embedded in the closely linked four-skills course design incorporating summary writing and the 4/3/2 story-retelling task.

## VI. CONCLUSION

The closely linked four skills teaching approach based on linked-skills tasks has been effective for L2 speaking fluency development in university English majors in Japan with upper-intermediate level English proficiency. It supports and encourages learners to perform at higher than normal levels by strengthening automatization. To conclude, the research seems to confirm some of the essential factors for fluency development: easiness of language, message focus, encouragement to increase speaking pace, planning and rehearsal, repetition of vocabulary and multiword units, and the use of formulaic sequences (Nation & Newton, 2009; Onoda, 2012). All of these factors appear to contribute to automatization to varying degrees. Yet, some caution should be exercised because story-retelling tasks using news stories may be influenced by individual differences in working memory capacity (Onoda, 2012; Segalowitz, 2010). Future replication with a larger sample size, with different speech elicitation methods that do not involve working memory may provide more substantial verification of these findings.

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## APPENDICES

### APPENDIX A DETAILED EXPLANATIONS OF THE TASKS

A)

1) *TV news clip viewing*: Students viewed the TV news clip in the textbook (Onoda & Cooker, 2012) used in the previous lesson in order to confirm and deepen their understanding of the main points of the news clip and to acquire some of the important expressions (meaning-focused input task).

2) *Story-retelling in pairs*: Pairs of students discussed the main points of the story they had listened to in the previous class by asking questions and exchanging opinions about the story, without looking at the textbook. This was repeated three times (meaning-focused input and output, and fluency development task).

3) *Teacher-led interactive story-retelling*: The teacher reviewed the main points of the news clip by eliciting student answers and ideas (meaning-focused input and output, and possibly a fluency development task).

4) *Shadowing exercises*: The teacher played a CD of a summary of the news story that include formulaic expressions for the students to repeat immediately as they listened to (language-focused learning and meaning-focused output task) (Presentation of new material).

5) *TV news story viewing with listening comprehension questions*: Students watched a news clip three times, and answered comprehension questions (language-focused learning and meaning-focused input task).

6) *TV news story viewing with gap filling exercises*: Students watched a news clip three times, and filled in the blanks. After all the blanks were filled in, students read the scripts and checked their answers to the comprehension questions against the teacher's explanation (language-focused learning and meaning-focused input task).

7) *Article reading*: Students read a newspaper article that covered the same topic in order to deepen their understanding about the news story (meaning-focused input task).

For the control group:

8) *Small group discussion*: First, students thought about the discussion questions and wrote their opinions. Then, they formed groups of three and discussed their opinions (meaning-focused input and output and fluency development task).

9) *Presentation of group's opinions*: A reporter from each group presented a summary of the group members' opinions



to the class, supporting them with the information or data obtained from websites (meaning-focused input and output, fluency development task).

Please note that these two tasks, separated as they stand, are different steps of a combined larger task.

For the experimental group:

8) *Summary writing*: Students wrote a summary including their opinions on the news story in 10 minutes (meaning-focused output and fluency development task).

9) *4/3/2 story-retelling task*: Each student told the news story that they had summarized in their own words to three different people. To the first student, they described it in four minutes, to the second student, three minutes, and to the third student, two minutes. After the speaker started narrating the story, the listener was allowed to ask questions to check the speaker's comprehension of the story and to make some comments on the speaker's performance (meaning-focused input and output, and fluency development task).

Please note that these two tasks, separated as they stand, are a different step of a combined larger task.

#### APPENDIX B

##### A SAMPLE NARRATIVE ELICITED BY THE NEWS STORY RETELLING TASK AT THE DATA COLLECTION POINTS

This is a sample narrative of the 4/3/2 story-retelling task. The boldfaced parts represent formulaic sequences that the students have studied. Please note that all the reformulations, replacements, false starts, and pauses have been deleted from the transcript.

**I've recently heard an interesting story about** the effects of TV on children. **Do you think** TV has positive or negative effects on them? **Any idea?** British government recently conducted research with younger children, and the result show that children's language skills have got worse and that they do not talk now as much as a long time ago. **What do you think were some of the causes?** The problem has been caused by a lack of communication among family members. **As you can imagine,** busy parents do not get together with their children when they eat meals and parents and children usually watch TV too much instead of talking to each other. Even when families are together, parents let their children watch TV to keep them quiet. In addition, parents these days don't know how to interact with their children. **It sounds like a serious situation, doesn't it?** Well, in order to improve the situation, the government is asking schools to teach parents how to talk, play, and communicate with their children. Also, the constant noise and flashing lights from TV sets have negative, serious effects on children's brains, so experts say that parents should not let young children below three years old watch TV at all. Thus, the news story reports only some of the negative effects of watching TV.

**In my opinion,** what they have found can be generally true of Japanese children. Nowadays we can see a lot of

children watching a TV screen or a computer screen, and they seem to be addicted to it. Even when they are with their parents or friends, at home or on the train, they are quiet and do not talk to each other. In addition, if young children watch TV too much, they learn bad language from some programs, like slap-stick comedies, they will develop lazy, sedentary lifestyle, and their eyesight may become weaker. **Having said that,** there are benefits of watching TV. For example, learning words and information, enjoying beautiful scenery in the world without visiting there, and the like. In fact, I have learned a lot of things from TV programs, like, **to name a few,** English, ideas for my summer science projects, proper Japanese expressions, and so on. So it's not a good idea to discourage young children watching TV at all. **Do you have any opinion about it?**



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