

## Effects of CLIL-based approaches on pre-service teachers' learning in teacher education programs

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Recepción: 07/02/2019 | Aceptado: 28/04/2019

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Citar: Onoda, S. (2019). Effects of CLIL-based approaches on pre-service teachers' learning in teacher education programs. *ReiDoCrea - Monográfico sobre Perspectivas transnacionales en la enseñanza de lenguas*, 8(3), 238-267.

**Abstract:** This paper presents an investigation into the effects of the CLIL (Content and Language Integrated Learning) approach on the development of critical thinking skills and English interactional skills of undergraduate pre-service teachers in Japan. English teacher education literature indicates that such core courses have not proved effective because pre-service teachers generally fail to use the approach with confidence and ease when they begin teaching, for a number of reasons: lack of English skills, especially interactional skills and critical thinking skills, teaching being theoretically focused, and instruction being given mainly in the L1.

To encourage pre-service teachers to improve their interactional skills and to autonomously apply, analyze, and evaluate teaching approaches demonstrated by instructors, this study introduced the CLIL approach in English teaching methodology courses with a primary focus on the use of authentic problem-solving group projects.

Participants were third- and fourth-year English majors with post-intermediate English proficiency enrolled in an English teacher education program at a Japanese university. Authentic problem-solving group projects were implemented in CLIL-based classes that met twice a week over one academic year. Participants' English speaking skills were measured through a test that assessed oral fluency and interactional skills at the beginning and end of the academic year. In addition, interviews were conducted with two focal groups of students and questionnaires administered to measure changes in their critical thinking skills (i.e., application, analysis, and knowledge evaluation) related to teaching approaches they learned about in addition to their perceptions of any improvement in their interactional skills.

Results showed that L2 oral fluency and interactional skills improved significantly and that the students' critical thinking skills were also enhanced, lending support to the value of authentic problem-solving group projects for students' knowledge and language skills development in a CLIL-based approach in undergraduate English teacher education programs.

**Keywords:** CLIL, critical thinking

### ***Efectos de los enfoques AICLE en la formación de maestros en programas de educación***

**Resumen:** Este artículo consiste en una investigación en torno a los efectos del enfoque AICLE (Aprendizaje Integrado de Contenidos y Lenguas Extranjeras), sobre el desarrollo de las habilidades de pensamiento crítico y de interacción en inglés del profesorado en formación inicial de Japón. La literatura en lo que se refiere a la formación del profesorado de inglés indica que los cursos básicos no son efectivos, puesto que el profesorado en formación inicial generalmente no utiliza el enfoque con seguridad y de manera sencilla cuando comienzan a enseñar debido a una serie de razones: escasez de competencias en inglés, especialmente en habilidades de interacción y pensamiento crítico, el papel predominante de un enfoque teórico y la impartición del contenido únicamente en L1. Con el fin de ayudar al profesorado en formación inicial a mejorar sus habilidades de interacción y poner en práctica, analizar y evaluar los enfoques de enseñanza implementados por este grupo de profesores de manera autónoma, este estudio introdujo el enfoque CLIL en cursos de enseñanza de inglés enfocado en el uso de proyectos auténticos en grupo de resolución de problemas. Los participantes fueron estudiantes de tercer y cuarto año de inglés con dominio del inglés medio-avanzado matriculados en un programa de formación de profesores de inglés en una universidad japonesa. De manera que se implementaron proyectos en grupo auténticos de resolución de problemas en clases fundamentadas en el enfoque CLIL que se reunían dos veces por semana durante un curso académico. Las destrezas lingüísticas orales en lengua inglesa de los participantes se midieron a través de una prueba que evaluó la fluidez oral y las habilidades de interacción al principio y al final del curso académico. Además, se realizaron dos grupos focales con dicho estudiantado y se les pasó una serie de cuestionarios para medir los cambios en sus habilidades de pensamiento crítico

(es decir, aplicación, análisis y evaluación de conocimiento) relacionados con los enfoques de enseñanza que aprendieron, además de sus percepciones en cuanto al progreso en sus habilidades de interacción.

Los resultados demostraron que la fluidez oral y las habilidades de interacción de L2 mejoraron significativamente y que sus habilidades de pensamiento crítico también se estimularon de forma positiva. Del mismo modo, manifestaron un valor y apoyo mayores del uso de la enseñanza a través de proyectos en grupo auténticos de resolución de problemas para el desarrollo de las destrezas lingüísticas basadas en el enfoque CLIL en programas de formación de profesores de inglés en formación inicial.

**Palabras clave:** AICLE, pensamiento crítico.

## Introduction

Over 400 universities in Japan have an undergraduate English teacher education program certified by the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) (Onoda, Miyashita, & Yoshino, 2017). Students who complete the program by taking a number of courses, including English teaching methodology courses, receive a teaching license for the junior and senior high school levels, whether or not they have acquired adequate pedagogical knowledge and skills. Moreover, the quality of such undergraduate teacher education courses was not strictly monitored by MEXT until recently, and the pedagogical knowledge and skills of such pre-service English teachers was only demonstrated through screening tests designed for secondary school teachers and conducted by municipal or prefectural boards of education or those given by private schools. In addition, measurement and screening methods have never been standardized, and the test components for skills required for English language teaching vary from test to test (Yamazaki, 2006).

Coupled with the problematic nature of the English teacher education and screening systems described above, a number of pre-service teachers appear to suffer from inherent problems, broadly characterized as two types: (1) lack of motivation and opportunities to improve their English skills, especially their English interactional skills; and (2) lack of critical thinking skills (Nishino & Watanabe, 2008; Onoda et al., 2017; Yamazaki, 2006).

These deficiencies are closely linked to two of the most critical challenges facing secondary school students: effective improvement in their English skills, and promotion of autonomous learning, that is, learning with goals and being motivated to continue learning using effective strategies reflected in learning performance (Borg, 2013). This is because these two goals require metacognition that partly represents critical thinking skills (Pintrich, Smith, García, & McKeachie, 1991). Thus, it is crucial for pre-service English teachers to improve their English interactional skills and their critical thinking skills.

In the literature review that follows, the two major issues mentioned above are reviewed in detail, and a promising approach to the improvement of these two critical skills is thoroughly discussed.

## Literature Review

### Intrinsic Challenges to Teacher Education in Japan

A brief review of English teacher education literature reveals that a number of issues can be observed in secondary English teacher education in Japan. In particular, the following two issues have been commonly reported in the literature (e.g., Nishino & Watanabe, 2008; Sano, Saito, & Yoshida, 2016; Yamazaki, 2006).

- (1) Pre-service English teachers do not possess advanced English skills, especially interactional skills (showing CEFR C1 level English proficiency) due to the EFL learning environment, which offers limited exposure to and use of spoken English, and they lack strong motivation to learn English except for entrance exams to universities, which usually measure only reading, vocabulary, and grammar knowledge;
- (2) Teaching in undergraduate English teacher education programs is largely theoretically focused, instruction is delivered mainly in the L1, and pre-service teachers acquire limited teaching experience through English teacher education programs, even though this includes a teaching practicum. As a result, they have not developed the critical thinking skills necessary for improving their own teaching and in particular for effectively accommodating students with diversified proficiency levels.

These problems may be seen in a number of reports on secondary English teachers' professional behaviors and perceptions of their need for English abilities. For example, a national survey conducted by MEXT (2017) showed that CEFR C1-level English skills were acquired by only 28.8% of junior high school English teachers and 55.4% of senior high school English teachers. However, these findings were based on a self-reporting survey of standardized test results, including TOEIC and TOEFL ITP, which measure only receptive skills (i.e., reading, listening, and grammar). Thus, the results do not truly indicate the percentage of English teachers who truly acquired overall C1-level English skills, especially productive skills. Most likely, the number of teachers who have acquired C1-level English proficiency is lower than these percentages indicate.

Support for this interpretation comes from a survey conducted in 2014 by Sano et al. (2016), which shows that the percentage of senior high school teachers who conduct lessons mostly in English (using English for 75% or more of class time) is 3.8% in the first year, 11.2% in the second year, and 10.7% in the third year, with percentages decreasing sharply as the year progresses (down to 3.8%). These results are congruent with the study conducted by Sato (2012).

Thus, it appears that practicing secondary English teachers lack motivation and do not put in the effort to use English or to acquire English interactional skills (Busch, 2010). Rather, they tend to employ an approach drawing largely on traditional teaching methods that focus primarily on reading, grammar, and vocabulary teaching while mainly using the L1 in their instruction.

Research also indicates that teachers may lack the critical thinking skills necessary for planning lessons that can effectively accommodate students with diversified proficiency levels and learning difficulties. Unless teachers have had experience of acquiring advanced interactional skills, they are not likely to design lessons that teach such skills effectively so that students will learn to communicate effectively in English. In addition, students in undergraduate teacher education courses have been influenced by the teaching styles their own teachers adopted, which often did not require advanced English interactional skills.

This lack of interactional and critical thinking skills is due to a number of factors. Firstly, in general, students in many undergraduate teacher education courses need to study a number of subjects related to their majors but not necessarily related to English education or English language learning, which leaves them unable to concentrate on improving their interactional or critical thinking skills regarding English teaching.

Secondly, those students need to take a number of required courses using the L1 in lecture style, except for English teaching methodology courses related to pedagogy. As a result, they lack opportunities to discuss teaching practice and encounter few pedagogical issues to think about and solve.

Thirdly, many course participants do not have a strong intention to become English teachers in their third year, when English teaching methodology and second language acquisition courses are offered. In fact, many of them aim to obtain a teaching license only to expand their employment potential (Onoda & Miyashita, 2018), and their motivation for learning English and studying English teaching methodologies is generally not high.

Finally, L2 teacher education literature indicates that broadly speaking, pre- and in-service teachers have preconceived views of English language teaching derived from their own secondary learning experience. Given insufficient learning experience and ineffective teaching approaches adopted in undergraduate teacher education courses, participants tend to teach English as they were taught (Wakabayashi, Kosuge, & Kosuge, 2016), and they continue to do so unless they encounter situations that require advanced

English interactional skills and the critical thinking skills needed for planning lessons that best suit their students' needs.

This reality is in stark contrast with more effective teacher education systems seen in other countries. For example, in the Teacher Education Department at the University of Jyväskylä, Finland, entrants are screened through a number of assessments that include interviews, discussions, and essay writing as well as standardized English proficiency tests (Kontoniemi & Salo, 2011). Only those who demonstrate C1-level English skills, especially interactional skills, on the Common European Frame of Reference (CEFR) guidelines (Little, 2006) as well as strong motivation for becoming teachers can join the program. Even more importantly, philosophies behind teacher education differ fundamentally between Japan and Finland. Teacher education in Japan has adopted a curriculum-based system in which pedagogical knowledge and teaching approaches are transmitted from expert teachers to pre-service teachers, and professional development is implemented mainly during the teaching career, a system that offers few incentives to critically reflect on teaching techniques in undergraduate teacher education courses. In contrast, in Finland, teacher education is fundamentally research-based, and professional development is included in pre-service teacher education based on the philosophy that pedagogical knowledge and teaching approaches are learned by encountering diverse teaching contexts (Sarja, Nyman, Ito, & Jaatinen, 2016). These critical differences explain a good deal about why Japanese pre-service teachers have not developed adequate interactional and critical thinking skills.

### **Definitions of L2 Oral Fluency and Interactional Skills**

L2 interactional skills are defined broadly as the oral skills needed to interact or communicate with interlocutors effectively in a continuous conversation or discussion in a given situation. This definition has been adopted by—and is reflected in—major standardized English proficiency tests such as the Cambridge English Exam and, in Japan, the Kanda English Proficiency Test (KEPT, 2007), in which skills are assessed under the construct of conversational skills, defined as “participation and smoothness of interaction (turn-taking, responding to others, asking questions, and introducing new gambits, paraphrasing, and hedging). Broadly speaking, it can be assumed that in order to conduct these speech functions effectively, L2 oral fluency is critical, and therefore germane to—or at least subsumed under—L2 interactional skills. In practical terms, oral fluency is viewed as identical to oral proficiency (de Jong, 2016). However, it is important to note that in some studies, L2 oral fluency is defined in a number of ways, including, for example, in Tavakoli and Skehan (2005) as follows: (1) speed fluency (i.e., number of words spoken per minute), (2) breakdown in fluency (i.e., number, length, and frequency of pauses per minute); and (3) repair fluency (the frequency with which the speaker uses corrections or repairs). Previous literature (e.g., Lennon, 1990; Segalowitz, 2010) suggests that speed fluency is one of the most reliable measures and is most germane to L2 interactional skills. Following KEPT, the present study defines oral fluency as speed fluency and interactional skills as conversational skills.

## Critical Thinking Skills

As reviewed above, critical thinking skills constitute one of the key learning strategies or behaviors included in the Motivated Strategies for Learning Questionnaire (MSLQ – Pintrich et al., 1991) and are essential for English language learning because learners are required to study autonomously inside and outside of class using effective learning materials and strategies based on their own judgement. This is especially the case in EFL learning environments, where learners are exposed to or use virtually no English outside of school.

This holds especially true for pre-service English teachers, who should foster autonomous English learners equipped with critical thinking as well as interactional skills. Their responsibilities include guiding learners to adopt and continue to use autonomous or self-regulated learning (Pintrich et al., 1991; Borg, 2013). This requires teachers and learners to develop critical thinking skills because they need to engage in critically analyzing information and applying their knowledge to evaluate that information and identify reliable information from what is delivered daily, especially in social media, while interacting with people from diverse backgrounds.

In the present pedagogical intervention, critical thinking was defined as a set of higher-order thinking skills, or more specifically, the skills needed to analyze and apply evidence in order to support or evaluate an argument (Pintrich et al., 1991). This definition is fundamentally congruent with a revision of Bloom's taxonomy of educational objectives (Anderson & Krathwohl, 2001), which stresses understanding, applying, analyzing, evaluating, and creating.

Embedding critical thinking into subject matter instruction is an appropriate and powerful formula for relating the uses of different cognitive skills (e.g., Barnett, 2013) because it encourages learners to employ various types of cognitive skills (e.g., Angeli & Valanides, 2009) and makes them aware of the operations that need to take place for successful learning to occur (e.g., McKeachie, 1992). In line with this postulation, a number of tasks can be employed to foster critical thinking skills in language education, including: (i) essay writing requiring critical thinking; (ii) writing responses to critical questions; and (iii) discussions, especially on controversial issues. In fact, a number of studies indicate that participants who engaged in critical writing tasks demonstrate greater improvements in critical thinking compared to those who were not (e.g., Barnett, 2013).

## Potential Solutions

A number of solutions are suggested in L2 teacher education literature for enhancing English interactional and academic skills as well as critical thinking skills. Based on their research, Onoda and Miyashita (2018), Sano et al. (2016), and Yamazaki (2006) make the following suggestions:

- (1) Incorporate tasks that encourage pre-service teachers to improve such skills through discussions, debates, and essay writing in teacher education courses taught in English;
- (2) Encourage prospective teachers to study abroad, take TESOL seminars, and enrich their understanding of teaching methods while improving their interactional skills;
- (3) Integrate second language acquisition and the CLIL approach into teacher education programs so that trainees can improve their interactional and critical thinking skills in class; and
- (4) Lengthen teaching practice at secondary school level from currently 3-4 weeks to 5-6 months, during which pre-service teachers will be required to interact with students in English while facing diverse teaching challenges.

Given the inherent constraints present in undergraduate teacher education programs, among these proposed solutions, adopting a CLIL approach in SLA and English teaching methodology courses seems the most feasible and effective.

### **The CLIL Approach and its Potential Effects on Learning**

In the CLIL approach, the target language is used for teaching and learning a given subject and communicating ideas and opinions among learners, with similar characteristics to an ELT integrated skills lesson or a content-based approach because of the following distinct characteristics:

- (a) Receptive and productive skills are integrated;
- (b) Reading or listening texts are major input sources;
- (c) Speaking is focused on communicating content and emphasizes fluency;
- (d) Writing is primarily based on lexical activities in which grammar teaching is incorporated naturally;
- (e) Language and content are explored in class, with language not structurally graded;
- (f) Lessons are based on materials that reflect the subject matter.

(Coyle, 2013, cited in British Council, 2013)

Closely examined, the CLIL approach is congruent with the linked-skills approach advocated by Nation (2013) in ESL/EFL settings as an effective technique for fluency development and therefore interactional skills development. The approach encourages learners to process a single text repeatedly through a series of language skills in a content-based teaching setting (Nation, 2014). For example, learners watch a TV news clip in which they are interested and that contains mostly familiar language (with 98% of words being known), then read the script with blanks for key words and fill these in while listening again, check their comprehension, write a summary and opinion, and finally talk about the news story and discuss their opinions in pairs.

The linked-skills teaching approach has a number of positive effects on L2 learning. L2 literature (e.g., Hyland 2008; DeKeyser, 2007; Nation, 2013; Onoda, 2012) shows that linked tasks are effective in that:

- (a) The same information and language features (including formulaic sequences or functional multiword units) are used repeatedly and processed through three or four different language skills (repetition and use of formulaic language);
- (b) The initial input activity requires learners to examine the text for the main points and to pay attention to key phrases and words for the subsequent summary writing (input enhancement);
- (c) The story covers an event that actually happened and attracts the learners and motivates them to read (intrinsic motivation);
- (d) The summary writing activity requires the learners to use key phrases and words accurately and clearly to convey the main points intelligibly (pushed output);
- (e) The opinion writing activity embedded in the summary writing helps learners personalize the story and become emotionally engaged with it (intrinsic motivation);
- (f) In the final pair speaking stage, learners speak and listen to the same key language features a number of times, which facilitates thoughtful consideration of language items (deep processing);
- (g) The sequence of activities enhances automatization of key language features, thus improving oral fluency (automatization);
- (h) The final pair speaking activity, which includes listening, provides opportunities for learners to be exposed to comprehensible input (i.e., listening to the other person's description of the story and opinion) and to be engaged in comprehensible output (i.e., expressing their own description), thus leading to the acquisition of the language features.

Thus, the linked-skills teaching approach includes a number of oral fluency-enhancing and therefore L2 interactional skills-enhancing features, including: input enhancement, intrinsic motivation, pre-task planning (rehearsal), pushed output (encouragement to



speak), repetition, meaning focus, deep processing, and automatization. Among these, the most critical factor is the automatization of language units, which enables speakers to conduct cognitive, linguistic, and phonetic transactions instantaneously (Kormos, 2006; Segalowitz, 2010), at least to the extent that these operations are performed unconsciously (Favreau & Segalowitz, 1983). In L2 learning, multiple exposure to and use of language items strengthen automatization, which in turn enhances oral fluency. In addition, automatized processes do not consume much working memory, thereby allowing for attentional resources to process larger pieces of information efficiently (Schmitt & Carter, 2004; Wood, 2001). In brief, the CLIL approach has major potential for the improvement of L2 oral fluency and therefore interactional skills.

Other studies (e.g., Admiraal, Westoff, & de Bot, 2006; Bas, 2008; Breidbach, & Viebrock, 2012; Lasagabaster, 2008), which examined the effects of the CLIL approach, especially including authentic problem-solving group projects, indicate that the approach is effective for improving language skills, social skills, critical thinking skills, motivation, and self-efficacy. Of equal importance, the benefits of CLIL approaches also appear to derive from major principles of material designs advocated by Tomlinson (2013):

- (a) Building learners' confidence;
- (b) Relevance and usefulness of tasks and materials;
- (c) Provision of opportunities to use English for authentic communication;
- (d) Encouragement of intellectual and emotional engagement; and
- (e) Value of cooperative interaction.

Research also shows that CLIL increases learners' language skills (e.g., Brevik & Moe, 2012), critical thinking skills, and affective factors (including motivation, confidence, and willingness to communicate) (Breidbach & Viebrock, 2012; Izumi, Ikeda, & Watanabe, 2012). One striking example (among others) is Brevik and Moe's (2012) study, which shows that a CLIL approach improves the performance of students with both weak and strong language skills and that the longer students were exposed to the approach, the more their language skills improved.

The CLIL approach also appears to be supported by research on self-regulation in learning drawing on social cognitive theory (Bandura, 1997) and self-determination theory (Deci & Ryan; 2000). Self-regulated learning is purported to improve English language skills, including interactional skills, and to enhance critical thinking skills (Pintrich & Zusho, 2002), which subsumes critical thinking strategies such as analysis of a task, planning for learning, selection of learning strategies, monitoring, evaluation of learning outcomes, and reflection on the entire learning process. Numerous studies show that intrinsic motivation and self-efficacy influences self-regulated learning, which in turn improves academic achievement (Pintrich & Zusho, 2002) and English speaking and

listening skills (Onoda, 2012). The characteristics proposed by Tomlinson (2013) appear to generate intrinsic motivation and self-efficacy, while perception of task value promotes intrinsic motivation, and perception of oral fluency improves learners' self-image (Dörnyei, 2003; Nation, 2013). In other words, L2 ideal selves (Dörnyei, 2003), or the existence of near-peer role models, enhance self-efficacy (Bandura, 1997; Murphey & Arao, 2001). In brief, the CLIL approach has significant potential for improving the English interactional skills as well as the critical thinking skills of pre-service teachers, especially by using English to communicate and to think deeply about teaching techniques and theories behind these techniques through problem-solving group projects.

### **Problem-solving Group Projects**

L2 literature (e.g., Bias, 2008) indicates that project work can be effectively utilized to promote learners' interactional skills and critical thinking skills (especially oral fluency) because this helps create a bridge between L2 use in and out of class. Given a clear goal, such a pedagogical approach offers opportunities for learners to be engaged in authentic collaborative learning because they need to thoroughly understand, plan, and discuss tasks to be done, including information collection and selection, arriving at a consensus on suggestions, and deciding how to present their ideas in class.

Research also shows the effects of project-based learning on the development of L2 skills and critical thinking skills. For example, Affandi and Sukyadi (2016) investigated the effects of project-based learning drawing on problem-solving activities with university EFL students and revealed that the intervention enhanced their L2 writing and critical thinking skills. Wahyudin (2017) examined the effects of project-based learning on business majors in higher education institutions in Indonesia and reported that the learning intervention improved oral fluency, comprehension, and critical thinking skills. Finally, the study conducted by Meksophawannagul (2015) showed that the approach helped engineering majors in Thailand improve their L2 speaking and critical thinking skills. Other studies show that project work develops learners' autonomy (Skehan, 1998) as well as confidence and independence (Fried-Booth, 2002). Of equal importance, project work naturally encourages learners to integrate multiple language skills, thereby improving their overall language skills (Fragoulis, 2009; Levine, 2004).

Authentic problem-solving group projects as part of a CLIL approach are also purported to yield many pedagogical benefits (Izumi et al., 2012), as follows:

- (a) Increasing interaction among members and improving speaking skills;
- (b) Encouraging learners to understand concepts deeply, critically analyze them, and express their understanding of them in English;

- (c) Providing enriched comprehensible input and output;
- (d) Increasing the learners' intrinsic motivation, self-efficacy, and autonomy in communicating their ideas in English;
- (e) Encouraging learners to be proactive in authentic communication about problems with classmates; and
- (f) Integrating all four enhancing language skills.

Thus, adopting authentic problem-solving group projects appears to be an effective and promising approach for improving pre-service teachers' L2 interactional skills (including oral fluency).

### **Research Question**

To what extent do the oral fluency, interactional skills, and critical thinking skills of undergraduate preservice English teachers with upper-intermediate level proficiency improve when authentic problem-solving group projects are employed over one academic year?

### **Method**

This study investigated the effects on L2 fluency and interactional and critical thinking skills development of an authentic problem-solving group project (experimental group) compared to group discussions (control group) over one academic year (see Tasks below for details of these activities).

L2 oral fluency and interactional skills data were obtained from a speaking test developed by the researcher and colleagues based on the Kanda English Proficiency Test (KEPT, 2007) (Appendix A). In addition, a critical thinking skills questionnaire was developed based on the Motivated Strategies Learning Questionnaire (Pintrich et al., 1991) by the researcher and a colleague using piloting and Rasch analyses (for further discussion, see Critical Thinking Skills below). Then, a questionnaire was administered to the participants and interviews were conducted with five participants randomly selected from each group at the end of the research period to help interpret the results from insider perspectives, especially regarding improvements in critical thinking skills. Finally, observations of the participants during oral testing by the researcher/teacher and a colleague who majored in applied linguistics were used to help interpret the results.

### **Participants**

Participants were two undergraduate English teaching methodology classes that met once a week over eight months (28 class meetings) running from April 2017 to January 2018 at a Japanese private university. Each class consisted of 24 third- and fourth-year English majors wishing to obtain a secondary school teaching license. The participants' English proficiency ranged from 476 to 587 ( $M = 532.45$ ,  $SD = 11.35$ ) as measured on the TOEFL ITP test. The pre-test conducted at the end of March 2017 revealed no statistically significant differences in any of the TOEFL ITP scores, L2 oral fluency scores, interactional skills scores, or critical thinking skills scores (see Tables 2, 3, and 4 below). Therefore, one of the classes was randomly designated as control group and the other as experimental group. The two groups were assigned different tasks designed to improve their oral fluency, interactional skills, and critical thinking skills, with the pedagogical intervention using authentic problem-solving group projects being implemented to the experimental group. The tasks in which they engaged are presented below in Table 1.

### **Tasks**

Both groups were required to read a chapter of *What Should Every EFL Teacher Know?* (Nation, 2013) and complete the worksheet created by the researcher/teacher, which included reading questions guiding learners to understand the main concepts in the chapter and their application to teaching practice in order to improve their critical thinking skills. This textbook is geared toward pre-service and practicing teachers and presents teaching techniques centered on the *four-strands of teaching*: meaning-focused input, meaning-focused output, language-focused learning, and fluency-development.

**a. Experimental group:** The pedagogical intervention was introduced to help learners achieve a high level of awareness of the value of generating solutions to authentic pedagogical problems through collaboration. Each week, a specific chapter was assigned to a group of three students assigned to cover the main points in class. The presenters prepared presentation slides that included some of the reading questions created by the teacher, guided the audience to discuss their answers to the questions in groups of three, elicited ideas from them, and confirmed their ideas by showing their own answers. Then, the presenters summarized all the solutions, encouraged the audience to critique all of the solutions, and finally selected the most feasible and effective solution by consensus. In doing so, they engaged the audience in an authentic problem-solving activity designed to improve L2 oral fluency, interactional skills, and critical thinking skills.

Sample problems were:

- (1) A junior high school student tells you that he can't memorize words effectively and often forgets what he studied the very next day. How can you help this student memorize words and retain them for a longer period?
- (2) A senior high school student has very weak L2 reading skills and reads almost word by word, so slowly that she immediately forgets what she read. As a result,

she doesn't like reading, learning grammar, or memorizing vocabulary. How can you help her improve her reading speed and encourage her to read with ease and confidence?

**b. Control group:** A specific chapter was assigned to a group of three students to cover the main points each week. The presenters prepared presentation slides that included some of the reading questions created by the teacher, guided the audience to discuss their answers to the questions in groups of three, elicited ideas from them, and confirmed their ideas by showing their own answers. They then showed three discussion questions regarding the main concepts covered in the chapter and guided the class to discuss them in groups of three and to deeply think about the main teaching techniques in terms of applying them to their own teaching in some way. Finally, the opinions reported by the groups were summarized by the presenters.

One of the discussion questions they created was:

The author says that for effective learning, repetition is important. What are the some of the reasons for that, and what types of tasks and materials can teachers use to promote repetition?

**Table 1. Tasks Employed**

Tasks	Groups	
	<i>Experimental group</i>	<i>Control group</i>
Common Tasks	Review of learning in previous class in group discussions (R, S, L)	Review of learning in previous class in group discussions (R, S, L)
	Group discussion about some of the reading questions in the worksheet (R, S, L)	Group discussion about some of the reading questions in the worksheet (R, S, L)
	Report and confirmation of ideas (W, R, S, L)	Report and confirmation of ideas (W, R, S, L)
Different tasks	Authentic problem-solving activity (R, S, L, W)	Discussion task (S, L, W)
	Presentation of groups' and presenters' opinions followed by critiques (L, S, R)	Presentation of groups' and presenters' opinions followed by summaries (L, S, R)

Notes: L = listening task; S = speaking task; R = reading task; W = writing task

Following the time-on-task principle (Nation, 2013), the time devoted to the tasks was kept equivalent between both groups.

## **Measurement**

### **a. L2 Oral Fluency and L2 Interactional Skills**

L2 interactional skills were measured using a standardized speaking test adapted from the Kanda English Proficiency Test (KEPT, 2007). In the original Speaking section, five test-takers are jointly given an easy topic such as “Where would you like to visit over a long holiday and why?” and are asked to freely discuss the topic for ten minutes. Their speaking performance is judged and rated by two trained examiners based on a rubric consisting of four measurement criteria: pronunciation, fluency, lexis and grammar, and conversational skills, on a five-point scale. The four sections demonstrate high reliability: .95, .97, .98, and .97, respectively. The Speaking section adopts the criterion for speed fluency in Tavakoli and Skehan (2005), i.e., number of words uttered per minute or “the ability to formulate utterances quickly and speak smoothly...” (KEPT, 2007). In this test, interactional skills are assessed under a similar construct, namely conversational skills, defined as “participation and smoothness of interaction (turn-taking, responding to others, asking questions, and introducing new gambits, paraphrasing, and hedging)” (KEPT, 2007).

In this study, the researcher and colleague adapted the test and used only two criteria: oral fluency and conversational skills. In this modified version, test-takers were paired up and asked to discuss a familiar topic such as *What do you think of the use of smartphones?* for five minutes. Their speaking performance was rated on a Likert scale from 5 (Excellent) to 1 (Very poor) by two examiners, namely the researcher and the above-mentioned colleague.

### **b. Critical Thinking Skills Development Questionnaire**

Critical thinking skills questionnaire items were adapted from the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich et al., 1991). The MSLQ defines critical thinking skills as among of the most important learning strategies since they respond to the need to “apply previous knowledge to new situations in order to solve problems, reach decisions, or make critical evaluations with respect to standards of excellence” (p. 21). Five items are used to measure critical thinking skills, one of them being: *When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.*

These five items were examined in terms of their applicability to the present study and the undergraduate English teacher education course context with the help of the researcher/teacher’s colleague. The critical thinking skills items were revised for the present study so that they would best reflect the critical thinking skills necessary for L2 teachers by employing a five-point Likert scale. These refined items were further modified if necessary based on feedback from a group of eight fourth-year students who were planning to continue learning TESOL methodologies in graduate school and had fairly advanced English skills (C1 CEFR). These modified items were then piloted with a group of 30 students from a different undergraduate English teacher education course at a different university, who therefore did not participate in the main study. Subsequently, the data collected through this procedure were analyzed using Rasch analyses in order to check the functioning of the rating scale, construct unidimensionality, and point-measure correlations between the items. As a result, two items measuring critical thinking skills in L2 teaching and learning with high Rasch person reliability and separation estimates (.91 and .81, respectively) were created for use in this study.

These two items are:

Item 1: When I learn new theories and teaching techniques, I think about how I can apply them to teaching situations.

Item 2: Before I accept new ideas and concepts, I try to analyze them carefully to find out whether there is good supporting evidence.

These two items were administered with the two groups of participants at the beginning and end of the research period.

## Results

The study compared the effects of authentic problem-solving group projects and discussion tasks on the development of L2 oral fluency, interactional skills, and critical thinking skills. Descriptive statistics for the pre- and post-test results are presented in Tables 2, 3, 4, and 5.

Four paired-samples *t*-tests were conducted after confirming that *t*-test assumptions were met (Green & Salkind, 2005). Using the Bonferroni approach to control for Type 1 error across the four comparisons, a *p* value < .0125 was required for significance.

First, a *t*-test was conducted to examine to what extent the experimental group improved its oral fluency as measured by KEPT oral fluency criteria on a five-point scale compared with the control group from the beginning to the end of the course. Results indicate that the mean of the experimental group ( $M = 3.31$ ,  $SD = .65$ ) was significantly greater than that of the control group ( $M = 2.97$ ,  $SD = .57$ ),  $t(23) = -4.69$ ,  $p < .01$ .  $d = .54$  (indicating a medium effect size).

Second, a *t*-test was run to measure whether the interactional skills of the experimental group as measured by the criteria of conversational skills focusing on naturalness was greater than that of the control group. Results showed that the mean of the experimental group ( $M = 3.32$ ,  $SD = .66$ ) was statistically greater than that of the control group ( $M = 3.08$ ,  $SD = .58$ ),  $t(23) = -3.45$ ,  $p < .01$ .  $d = .38$  (indicating a small to medium effect size).

These results reveal that the students' L2 interactional skills improved, probably due to the use of the authentic problem-solving group project. Importantly, the fluency and interactional skills measures of the adapted KEPT speaking test yielded high reliabilities (oral fluency:  $\alpha = .89$ ; interactional skills:  $\alpha = .87$ ), giving robust support to the findings, as do inter-rater reliability indices of  $\alpha = .81$  and  $.85$ , respectively.

Next, a *t*-test was run to determine whether the critical thinking skills measured by Item 1 improved significantly more than did those of the control group. Results showed that the mean of the experimental group ( $M = 3.41$ ,  $SD = .72$ ) was statistically greater than that of the control group ( $M = 3.05$ ,  $SD = .59$ ),  $t(23) = 2.41$ ,  $p < .01$ .  $d = .55$  (indicating a medium effect size).

Finally, a *t*-test was administered to investigate whether there were any significant differences between the two groups' perceptions of improvements in critical thinking skills as measured by Item 2. The results reveal that the mean of the experimental group ( $M = 3.57$ ,  $SD = .68$ ) was statistically greater than that of the control group ( $M = 3.12$ ,  $SD = .69$ ),  $t(23) = 3.13$ ,  $p < .01$ ,  $d = .60$  (indicating a medium effect size).

**Table 2: Descriptive statistics for L2 oral fluency**

<b>Groups</b>	<b>Experimental group</b>		<b>Control group</b>	
	<b>(n = 24)</b>		<b>(n = 24)</b>	
Tests	Pre-test	Post-test	Pre-test	Post-test
Mean	2.47	3.31	2.45	2.97
SD	.53	.65	.55	.57
Skewness	.44	.65	.43	.50
Kurtosis	.31	.30	.31	.33

**Table 3: Descriptive statistics for interactional skills**

<b>Groups</b>	<b>Experimental group</b>		<b>Control group</b>	
	<b>(n = 24)</b>		<b>(n = 24)</b>	
Tests	Pre-test	Post-test	Pre-test	Post-test
Mean	2.87	3.32	2.78	3.08
SD	.53	.66	.52	.58
Skewness	.43	.57	.38	.46
Kurtosis	.33	.30	.31	.34



The skewness and kurtosis statistics for the adapted KEPT speaking test scores were judged acceptable, and no outliers were identified.

**Table 4. Changes in critical thinking skills as measured by Item 1**

<b>Groups</b>	<b>Experimental group</b>		<b>Control group</b>	
	<b>(n = 24)</b>		<b>(n = 24)</b>	
Time	1	2	1	2
M	2.91	3.41	2.81	3.05
SD	.58	.72	.51	.59
Skewness	.45	-.21	.54	-.11
Kurtosis	.45	.82	.81	-.78

**Table 5. Changes in critical thinking skills measured by Item 2**

<b>Groups</b>	<b>Experimental group</b>		<b>Control group</b>	
	<b>(n = 24)</b>		<b>(n = 24)</b>	
Time	1	2	1	2
M	3.01	3.57	2.91	3.12
SD	.55	.68	.57	.69
Skewness	-.20	-.19	.43	-.21
Kurtosis	.38	-.51	.52	-.52

The skewness and kurtosis statistics for the two critical thinking items scores were judged acceptable, and no outliers were identified. In addition, the two critical thinking scores demonstrated high reliability coefficients of  $\alpha = .87$  and  $.86$ , respectively.

## Comments Elicited in Interviews and Questionnaires

The interviews and questionnaires were conducted in Japanese, and participants' comments were later translated into English by the researcher. Numbers in parentheses indicate the number of respondents who offered the comment (in a variety of wordings). The following are some of the representative comments:

### a. Authentic Problem-solving Group Project (experimental group)

- i. Problem-solving group projects helped us integrate SLA theories and teaching skills, which facilitated deeper and critical learning of the theories. (15)
- ii. I was able to learn SLA theories and teaching methods while improving my English speaking and reading ability. (14)
- iii. While engaged in problem-solving group projects, I learned a lot of ideas from my group members and others, which helped me understand SLA theories and teaching methods and their practical application to teaching settings. (12)
- iv. There were some technical terms included in the textbook, but through communication to discuss possible solutions for the group projects, they became truly understandable. (5)
- v. Learning second language acquisition and teaching methodologies in English were effective for my academic English learning. (5)
- vi. I think this project encouraged us to speak and discuss a lot in English. We used a lot of key words and phrases we had learned in the textbook. (11)
- vii. At first, I thought it was difficult to discuss ideas in English, but soon with group members' help, I learned to communicate my ideas using technical terms in English. (7)
- viii. The group project motivated me to read the textbook deeply and think critically about the problems from many perspectives. (8)
- ix. The last critiquing session offering a lot of interactions was very effective because listening to other people's opinions helped me expand my horizons and encouraged me to learn what I had not known. (8)
- x. This group work, especially the critiquing sessions, provided opportunities to think about the problem deeply from multiple perspectives, including individual differences, teachers' teaching approaches, and their various learning experiences. (11)

### b. Discussions and Reporting their Ideas to the Class (control group)

- i. The discussion questions the presenters prepared helped us think about the theories and their related effective teaching techniques. (14)

- ii. Some of the discussion questions did not motivate us to talk for a long time or require much deep thinking. (12)
- iii. The discussion session was useful and fun because the group members shared their ideas based on their experience, but not necessarily drawing on theories and teaching techniques in the textbook. (10)
- iv. Thinking about answers to discussion questions helped us read the textbook more carefully. (9)
- v. Sometimes one of the group members discussed her opinion and the other two tended to agree. As a result not much critical thinking and interactions occurred (8)
- vi. The discussions are helpful in learning other people's ways of thinking and in understanding SLA theories because others could help. (7)
- viii. It was effective to discuss questions related to the chapter content in English because it was good practice to think and talk in English. (6)

These comments may help explain why the experimental group demonstrated that their L2 fluency and interactional skills improved significantly and that their critical thinking skills were also enhanced.

## **Discussion**

The aim of this study was to compare the effects of an authentic problem-solving group project and of discussion tasks on the development of L2 oral fluency, interactional skills, and critical thinking skills. Results indicate that L2 oral fluency as well as interactional and critical thinking skills improved with engagement in an authentic problem-solving group project. The results yield pedagogical insights into what led to this difference because both discussion tasks and authentic problem-solving group projects include opportunities to interact with one another to exchange their opinions while time on task was kept equivalent. Additionally, it is important to note that the discussion tasks included three discussion questions, whereas the group problem-solving task included only one question, with either format being purported to promote interaction and critical thinking according to L2 literature (Nation, 2013). A number of possible interpretations of the results can be drawn from L2 literature, participants' comments, and interviews with two focal groups, each consisting of five students randomly selected from each group, and closer analysis of the two tasks.

First, when finely tuned to learners' proficiency and intellectual levels, discussion tasks generate interactions, including exchanges of opinions and ideas from different angles, thus contributing to improvements in L2 oral fluency, interactional skills, and critical

thinking skills. However, as can be seen from the participants' comments, this was not always the case with the control group as the outcome depended on the discussion question the presenters prepared. Some questions were crafted so as to encourage participants to think deeply and share ideas with group members by referring to the SLA theories and teaching techniques in the textbook. In contrast, some questions did not require deep thinking and could be answered based on experience despite the fact that the freedom to create discussion questions satisfied the presenters' autonomy, an important factor for motivated self-regulated learning (Deci & Ryan, 2000). It can therefore be assumed that the repetition of important words and phrases as well as pushed output (or encouragement to speak) did not always occur as had been expected among the group members while engaged in the discussion tasks. As a result, their intrinsic motivation and self-efficacy, two critical predictors of the use of self-regulation strategies including critical thinking skills (Deci & Ryan, 2000; Onoda, 2012; Pintrich & Zusho, 2002), may not have been affected.

Second, the time spent answering three questions was equivalent to the time devoted to a single authentic problem-solving group project. This may have prevented participants from spending enough time talking about each question, at least to the extent that the experimental group enjoyed that privilege. Additionally, while some questions did not improve participants' intrinsic motivation and self-efficacy, it is important to note that the control group also improved in L2 oral fluency, interactional skills, and critical thinking skills as a result of the group discussion. However, it appears that there was not ample repetition of key words and phrases and that the degree of automatization did not appear as deep or robust as in the authentic problem-solving group task.

In contrast, the problem-solving group task seems to have worked well for the participants. The presenters made every effort to discuss a pedagogical problem that has often been reported in the English language teaching field and for which no easy answers were available. Thus, the task required ample opportunities to discuss among group members and exchange ideas based on their knowledge and learning experience, the textbook, and L2 literature. Thus, given the complexity of the problem, which is reported to be a key factor in learning through problem-solving learning (Bias, 2008) as well as the availability of time, learners had time to check SLA theories and teaching techniques discussed in the textbook, visit websites, and discuss the problem and possible solutions from a number of perspectives. Given the generally low motivation level of pre-service English teachers, authentic problems appear to increase their intrinsic motivation (Deci & Ryan, 2000) because these are problems they may encounter and make every effort to solve when they become teachers. As reflected in the comments, the authentic problem-solving group project generated a great deal of active discussion and helped students integrate SLA theories and teaching skills, thereby promoting deeper and critical learning of the theories in English because of contributions of different ideas from various group members based on their interpretations of theories and teaching techniques as well as their diverse teaching and learning experiences. As self-regulation literature (e.g., Pintrich & Zusho, 2002) indicates, intrinsic motivations drives learners to employ self-regulated learning behaviors, including critical thinking,

metacognition, and effort regulation (Onoda, 2012), which in turn yields deeper and more organized thinking and learning outcomes. Here, intrinsic motivation may have played an important role in increasing L2 oral fluency, L2 interactional skills, and critical thinking skills (Deci & Ryan, 2000).

Interestingly, the authentic problem-solving group project appears to have had similar effects on L2 oral fluency and interactional skills development to those of the linked-skills teaching approach discussed above. In the linked-skills approach, learners are required to process information and language units thoughtfully in four different modes (listening, reading, writing, and speaking), thereby promoting automatization of language items and as a result usually demonstrating improved oral fluency and interactional skills (Nation, 2013; Onoda, 2017). Thus, the linked skills teaching approach includes a number of oral fluency-enhancing and therefore L2 interactional skills-enhancing factors, namely intrinsic motivation, pushed output, repetition, meaning focus, deep processing, and automatization.

This effect can be seen in the authentic problem-solving group project, especially in the whole class critiquing session at the end, which offered ample opportunities not only to read the textbook and websites carefully and proactively and to repeatedly discuss diverse ideas and opinions using technical terms, but also to repeat key words and functional multiword units for an exchange of opinions, which may have helped learners to deeply process these items and thus facilitate automatization; as a result, L2 oral fluency, interactional skills, and critical thinking skills improved. In brief, ample opportunities for pushed output or encouragement to talk led to improved intrinsic motivation and self-efficacy.

As the post-test results show, according to the raters' own perceptions, participants in the authentic problem-solving group project sounded more spontaneous and natural than those in the control group, who were engaged in discussion tasks.

Finally, the presenters' feedback on the authentic problem-solving group project, which was elicited from them after their presentations, was highly positive and clarified the benefits of the project, as can be seen in the summary below:

- (1) Meaningful group work experiences helped us improve and maintain their motivation for the task and critical thinking and build their confidence in exchanging their ideas in English;
- (2) Positive evaluations of their teaching idea and suggestions for improvement offered learners a sense of achievement;
- (3) This project gave presenters many opportunities to use English, such as reading relevant books, following social media, and discussing their thoughts about the

problem and possible solutions with their group members. As a result, they improved in oral fluency and interactional skills.

- (4) This group work provided opportunities to think about the problem deeply from multiple perspectives, including individual differences, teachers' teaching approaches, and their various learning experiences.

Taken together, the statistical analyses and interview and questionnaire results show that the authentic problem-solving group project yielded a number of pedagogical insights:

- (1) Learners expanded their learning potential and improved their critical thinking skills;
- (2) Learners' exploration of effective solutions encouraged active interactions among classmates. As a result, students improved in oral fluency, interactional skills, and critical thinking skills;
- (3) Groups of students approached the project and arrived at solutions differently, which provided varied learning experiences;
- (4) Participants were motivated to understand the problem by applying their knowledge and experience, refine their interpretations on the basis of the information obtained from other sources, reach a conclusion, and finally critique it from multiple perspectives;
- (5) Given all the above factors, if effectively implemented, project work appears to satisfy innate human needs for autonomy, competence, and relatedness, as self-determination theory (Deci & Ryan, 2000) postulates.

## **Conclusion and Limitations**

Based on the results and discussion above, the CLIL-based approach using authentic problem-solving group projects has a positive impact on pre-service English teachers' linguistic skills and critical thinking skills. In other words, the approach is helpful for knowledge and practical skills development in undergraduate English teacher education programs. It improves learners' intrinsic motivation and self-efficacy and encourages learners to process key language items in all four language skills proactively through repeated exposure and use, which activates deep processing of useful language items and promotes automatization of language items in larger units, as Anderson's adaptive control of thought (ACT) theory (1983) postulates.

However, it is important to note that discussion tasks, which the control group engaged in, also improved their oral fluency, interactional skills, and critical thinking skills, but not

by as much as for the experimental group. Thus, it would be illegitimate to deny the use of discussion tasks for such pedagogical purposes because authentic problem-solving group projects also include discussion tasks, though to a smaller degree.

In conclusion, this study sheds light on the importance of some of the critical elements for L2 oral fluency and interactional skills development, i.e., intrinsic motivation, including perceived value of the task (Deci & Ryan, 2000; Pintrich et al., 1991), pushed output (Nation, 2013), self-efficacy (Bandura, 1997), incentives to speak about one's ideas, and repetition of lexis leading to the spontaneous use of longer language units (Nation, 2015; Onoda, 2012). These factors contribute to deep processing and then automatization, thus facilitating L2 oral fluency, interactional skills, and critical thinking skills.

Thus, the present research lends support to the use of authentic problem-solving group projects as part of the CLIL teaching approach in order to improve pre-service teachers' L2 oral fluency, interactional skills, and critical thinking skills.

However, care should be taken not to generalize these results to other contexts for a number of reasons. First of all, oral fluency and interactional skills are defined in a number of ways in the L2 literature, and research results may vary according to the definition used. Second, this is a small-scale study conducted with 24 participants with C1-level English proficiency in both control and experimental groups. Given the rather unique circumstances in which this study was conducted, this teaching approach needs to be examined in replication studies using participants with different proficiency levels in order to make the present findings more generalizable.

## Notes

This research was supported by 2017 and 2018 President Research Grants from the Faculty of International Liberal Arts, Juntendo University. I would like to express heartfelt appreciation to Prof. Eiki Kominami, Dean of the Faculty of International Liberal Arts for awarding me financial support to conduct part of this research at the University of Jyväskylä, Finland in September 2017 and to give a presentation on that campus on the effects of group projects as part of the CLIL approach. This article is based on a presentation titled "Enhancing L2 interactional and critical thinking skills through group projects" given at the JALT CUE SIG 25th Anniversary Conference held in September 2018 at Rikkyo University, Japan and on a presentation titled "Effects of CLIL-based approaches on pre-service teachers' learning in teacher education programs" at the University of Granada, Spain in May 2018.

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## Appendix

Kanda English Proficiency Test Speaking Section Rubric (2007)

	<b>Pronunciation</b>	<b>Fluency</b>	<b>Lexis / Grammar</b>	<b>Conversational skills</b>
	<p>Think about:</p> <ul style="list-style-type: none"> <li>▪ <b>Word level</b></li> <li>▪ <b>Sentence Level: ability to blend or link sounds within or between words</b></li> <li>▪ <b>Stress, rhythm, and intonation</b></li> <li>▪ <b>Accent</b></li> </ul>	<p>Think about:</p> <ul style="list-style-type: none"> <li>▪ <b>Automatization: the ability to formulate utterances quickly and to speak smoothly</b></li> <li>▪ <b>Speaking speed</b></li> <li>▪ <b>Hesitations and pausing</b></li> </ul>	<p>Think about:</p> <ul style="list-style-type: none"> <li>• <b>Correct grammatical forms</b></li> <li>• <b>Suitability of vocabulary</b></li> <li>• <b>Displaying the ability to use (or attempt to use) different grammatical structures and vocabulary suitably in context</b></li> <li>• <b>Collocations and correct word choice</b></li> </ul>	<p>Think about:</p> <ul style="list-style-type: none"> <li>• <b>Participation and smoothness of interaction (turn-taking, responding to others, asking questions and introducing new gambits, paraphrasing, hedging)</b></li> </ul>
<p>0 ~ 0.5</p>	<p><b>Unacceptable pronunciation</b></p> <ul style="list-style-type: none"> <li>• Very heavy accent, which would lead to a breakdown in communication</li> <li>• Only uses L1-like phonology and rhythm; words not blended together</li> </ul>	<p><b>Unacceptable fluency</b></p> <ul style="list-style-type: none"> <li>• Fragments of speech</li> <li>• Halting, often incomprehensible</li> <li>• Communication nearly impossible</li> </ul>	<p><b>Unacceptable lexical &amp; grammatical usage</b></p> <ul style="list-style-type: none"> <li>• No evidence of grammatical knowledge</li> <li>• Knows few words and uses them in isolation</li> <li>• Unable to share simple ideas</li> <li>• Communication not possible</li> </ul>	<p><b>Unacceptable conversational interaction</b></p> <ul style="list-style-type: none"> <li>• Shows no awareness of other speakers; may speak but not in a conversation-like way</li> <li>• Communication not possible</li> </ul>
<p>1.0 ~ 1.5</p>	<p><b>Poor pronunciation</b></p> <ul style="list-style-type: none"> <li>• Uses somewhat L1</li> <li>• -like pronunciation; does not blend words</li> <li>• Likely to have comprehension</li> </ul>	<p><b>Poor fluency</b></p> <ul style="list-style-type: none"> <li>• Slow strained, unnatural speech</li> <li>• Frequent unnatural searching for words</li> <li>• Long unnatural</li> </ul>	<p><b>Poor lexical &amp; grammatical usage</b></p> <ul style="list-style-type: none"> <li>• Limited grammatical knowledge evident</li> <li>• Limited vocabulary but inexpert usage</li> <li>• Little or no</li> </ul>	<p><b>Poor conversational interaction</b></p> <ul style="list-style-type: none"> <li>• Does not initiate interaction</li> <li>• Uses mostly a monologue style</li> <li>• May show some basic turn-taking but does not relate</li> </ul>

	difficulties with interlocutors	<p>pauses</p> <ul style="list-style-type: none"> <li>• Communication difficult</li> </ul>	<p>attempt at complex vocabulary or grammar</p> <ul style="list-style-type: none"> <li>• Ideas can be shared, but with probable comprehension difficulties</li> </ul>	<p>ideas well or give much explanation</p>
<p>2.0</p> <p>~</p> <p>2.5</p>	<p><b>Fair pronunciation</b></p> <ul style="list-style-type: none"> <li>• Has not mastered some difficult sounds of English, but should be mostly understandable to interlocutors</li> <li>• Makes regular attempts to blend words but may still stress words incorrectly</li> </ul>	<p><b>Fair fluency</b></p> <ul style="list-style-type: none"> <li>• Speech is hesitant, somewhat unnatural</li> <li>• Unnatural searching for words and unfilled spaces may persist, but this does not completely impede communication</li> <li>• May overuse fillers or demonstrate other unnatural usages</li> </ul>	<p><b>Fair lexical &amp; grammatical usage</b></p> <ul style="list-style-type: none"> <li>• Overly reliant on a small range of simple grammar and vocabulary to express ideas</li> <li>• Shows little or no evidence of ability to control difficult grammar or vocabulary</li> </ul>	<p><b>Fair conversational interaction</b></p> <ul style="list-style-type: none"> <li>• Consciousness of turn-taking</li> <li>• Maintains interaction by responding to others without unnatural gaps or pauses</li> <li>• Shows meaningful agreement or disagreement to others' opinions (assent / dissent, etc.)</li> </ul>
<p>3.0</p> <p>~</p> <p>3.5</p>	<p><b>Very good pronunciation</b></p> <ul style="list-style-type: none"> <li>• May not have mastered all the sounds of English, but has good control of sentence stress and intonation</li> <li>• Accent does not interfere with comprehension; can blend words consistently</li> </ul>	<p><b>Very good fluency</b></p> <ul style="list-style-type: none"> <li>• Occasional misuse of fillers, searching for words, and frequent repair may still be evident, but is not overly distracting to listeners</li> </ul>	<p><b>Very good lexical &amp; grammatical usage</b></p> <ul style="list-style-type: none"> <li>• Shows evidence of ability to control difficult grammar or vocabulary and attempts to use a range of forms</li> <li>• May continue to make mistakes, but should be comprehensible</li> </ul>	<p><b>Very good conversational interaction</b></p> <ul style="list-style-type: none"> <li>• Appears confident</li> <li>• Responds appropriately to others</li> <li>• May direct conversation</li> <li>• Shows ability to negotiate meaning quickly and naturally</li> <li>• May begin to use paraphrase or clarification as a means to scaffold for lower level interlocutors</li> </ul>
<p>4</p>	<p><b>Excellent pronunciation</b></p> <ul style="list-style-type: none"> <li>• Appears to have mastered much of the sound system</li> </ul>	<p><b>Excellent fluency</b></p> <ul style="list-style-type: none"> <li>• Conversation should proceed smoothly, with little impediment</li> </ul>	<p><b>Excellent grammar &amp; vocabulary usage</b></p> <ul style="list-style-type: none"> <li>• Demonstrates excellent control</li> </ul>	<p><b>Excellent conversational interaction</b></p> <ul style="list-style-type: none"> <li>• Very confident and natural</li> </ul>

<p>~ 5</p>	<p>of English</p> <ul style="list-style-type: none"> <li>• Accent does not impede communication</li> </ul>	<ul style="list-style-type: none"> <li>• Uses fillers, markers, and lexical chunks effectively</li> <li>• Searching for words may occur, but seems natural &amp; fluent</li> </ul>	<p>of a range of grammar and vocabulary</p> <ul style="list-style-type: none"> <li>• Mistakes may still occur, but these should not impede meaning</li> <li>• Chunked lexical items, such as idioms and collocations may be present and used correctly</li> </ul>	<ul style="list-style-type: none"> <li>• May ask others to expand on views</li> <li>• Negotiates, holds and relinquishes turns appropriately</li> <li>• Explains how own and others' ideas are related, interacts smoothly</li> </ul>
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