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University Students' Perceptions of Content-Based Instruction on English Language Teaching and Their Relevance to the Students' L2 Motivational Self System: An Exploratory Study

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Abstract

This paper reports university students' perceptions of Content-Based Instruction (CBI) on English language teaching (ELT) and their relevance to their motivation in terms of L2 motivational self system (Dörnyei, 2005). This CBI course was taught at a teacher-training university in the 2013 fall semester. The previous study (Miyasako, under review) examined the students' perceptions of CBI on ELT, extracted three CBI factors (effective, approving, and English-use factors), and revealed that these factors were not much affected by their content understanding and English proficiency. The present study examined: (a) the participants' L2 learning motivation; (b) relationships between their perceptions of CBI on ELT and L2 learning motivation, and (c) effects of their content understanding and English proficiency on L2 learning motivation. The following results were shown. First, the participants' L2 learning motivation centered on ideal L2 self and attitudes to learning English. Second, these two motivational factors (MFs) could explain about 30% of their perceptions of CBI on ELT. Third, MFs relevant to their English proficiency and content understanding are positively ideal L2 self and promotion-focused instrumentality, and negatively ought-to L2 self and prevention-focused instrumentality.

Keywords: CBI, L2 motivational self system, teacher training

Introduction

English language teaching (ELT) in Japan stands at a turning point. ELT will be introduced into elementary schools in several years. English courses are now supposedly taught in English at senior high schools, and will also be done so at junior high schools. Contrary to this, it does not appear that courses on ELT at universities are widely taught in English, although Content and Language Integrated Learning (CLIL) and Content-Based Instruction (CBI) are paid attention to recently. Isn't it necessary to teach English-medium ELT training courses at universities?

To this question, we often hear opposing remarks of university instructors. However, we seldom see data or evidence revealing how English-medium courses on ELT affect students' variables such as content understanding, English proficiency and L2 learning motivation. Since it is natural that English-medium courses on ELT should be evaluated based on data or evidence, we took a first step of investigating students' perceptions of ELT training courses

conducted in English at universities.

This paper reports an exploratory study investigating students' perceptions of a CBI course on ELT and their relationships with their variables such as their content understanding, English proficiency and L2 learning motivation. Here, one reason for the term CBI, not CLIL, being adopted for the English-medium instruction lies in that CLIL, growing in number as a variety of Task-Based Language Teaching (TBLT) in liberal arts curriculums in Japan, is dominantly used at the secondary level in many countries (Lightbown, 2014). Another comes from the original purpose of CBI to put a high priority on content learning (Richards & Rodgers, 2014), which matched our CBI course on ELT.

CBI, seeking to 'kill two birds with one stone' by integrating content and language learning, originated in 'language across the curriculum movement' in Britain and immersion education in Canada in the 1970s (Larsen-Freeman & Anderson, 2011). This instruction is considered a variety of Communicative Language Teaching because it requires content-centeredness, authentic language use and learner-centeredness for its essential conditions (Stryker & Leaver, 1997). In a more specific rationale of CBI (Brinton, 2007), an advantage of CBI is shown as seeking to develop accuracy as well as fluency. This is to rectify a weakness of immersion education in not being able to develop learner productive skills matching their receptive skills. This is congruous with second language acquisition (SLA) research in denying language instruction totally relying on Comprehensible Input Hypothesis (Krashen, 1982). Consequently, CBI seems appropriate for English-medium courses on ELT at universities in Japan.

CBI has four teaching models. Three of them are theme-based, sheltered, adjunct models that Stryker and Leaver (1997) introduced, and the fourth is a skill-based model that Richards and Rodgers (2014) added. According to these researchers, in the theme-based model, a language instructor conducts in L2 both language and content teaching on a certain topic or theme to L2 learners. This model usually puts more emphasis on language teaching than the other models. Second, in the sheltered model, a content subject instructor teaches in L2 the content subject to L2 learners. Although a primary aim of this model is content teaching, the teacher tries to fine-tune her teaching so that her learners can understand it. This model is often used at universities in North America. Third, in the adjunct model, two language and content subject instructors conduct two different but relevant courses, compensating for each other. Although this model puts more emphasis on content teaching than in the shelteredmodel, the teacher here does not fine-tune her teaching. This is because an aim of this model lies in adapting L2 learners to regular content subject courses with language support provided in the language teaching. Finally, the skill-based model usually focuses on particular academic skills, such as academic writing, which can be considered to be teaching English for specific / academic purposes.

Out of these four models, what is appropriate for our CBI on ELT is the sheltered-model. One reason for this is that our CBI course should be focused more on the content teaching. Another is that a sheltered CBI requires just one instructor who can conduct both language and content teaching. Moreover, the instructor of our CBI is capable of fine-tuning the teaching because he knows the learners' English proficiencies well.

Consequently, a sheltered CBI course on ELT was taught in an education department in

the 2013 fall semester. In the last session, a survey was taken concerning the students' perceptions of CBI as well as L2 learning motivation with a questionnaire, composed of 81 6-point Likert items. Out of them, 39 items pertaining to CBI on ELT were examined, in the previous study (Miyasako, under review), to find out: (a) the students' evaluation of the course based on the descriptive statistics; (b) if there were factors concerning the students' perceptions of CBI; and (c) how much the students' perceptions of CBI were affected by their content understanding, English proficiency and job prospects. One result showed that the students' evaluation of the CBI course was satisfactory because they found the course effective at fostering content understanding and rewarding in terms of English use. Another unveiled three factors of CBI on ELT, which were effective, approving, and English-use factors (Appendix A). However, it was further shown that the CBI factors (CBI-Fs) were not much affected by their content understanding, English proficiency and job prospects. The third result led us to speculate that their perceptions of CBI on ELT might have been more affected by their L2 learning motivation, which required us to examine their L2 learning motivation and its effects.

The present paper will first investigate the students' L2 learning motivation in terms of L2 motivational self system (Dörnyei, 2005). Second, it will examine relationships of their CBI perceptions with L2 learning motivation and other variables. Third, it will look into effects of their content understanding and English proficiency on L2 learning motivation. Based on the results, finally, this study will discuss issues relevant to English-medium courses on ELT at universities.

L2 Learning Motivation

This section reviews key concepts in L2 learning motivation that will be used in the investigation. For a long time, L2 motivation research has centered around Gardner and Lambert's (1959) seminal concepts of integrative and instrumental motivation. Indeed, these social psychological concepts can explain L2 learning motivation where we can recognize similar patterns of L2 learners' attitudes toward L2 and L2 communities as seen in bilingual education in Canada. However, it has been shown that integrative and instrumental motivation cannot account for L2 learning motivation where L2 learners possess different attitudinal patterns to their L2 and L2 communities from the original supposition. Regarding this, Gardener himself has acknowledged that there are a variety of contexts where this dichotomy cannot explain their L2 learning motivation (Dörnyei & Ushioda, 2011).

Additionally, there are reasons why the integrative and instrumental dichotomy cannot explain English learning motivation for Japanese learners (Ryan, 2009; Taguchi, et al., 2009; Ushioda, 2013; Yashima, 2013). First, they do not have many occasions to communicate in English out of school however hard they may study the language at school. Naturally, the hard working are usually instrumentally motivated, probably in order to get higher grades, to enter good schools and universities or to obtain English certificates to get good jobs. It is not easy for them to develop positive attitudes toward English communities to the degree that they desire to be integrated into the societies. Second, they are, in a sense, living in a global society where English is no longer the possession of limited native speakers, but is used by more non-native speakers. One cannot be integrated with the lingua franca, even if she may

have a particular English-speaking country or culture with which she wants to. Recently, as a matter of fact, Japanese people often use English as a means of communication with Asians.

Despite the vulnerability, these concepts of Gardner's never lose their hold because of "integrativeness enigma" (Dörnyei, 2005), where empirical research, with a variety of L2 learning contexts, consistently confirms that integrativeness is a major explanatory construct of L2 learning motivation. This phenomenon can be interpreted as showing that there is surely some motivational factor for which integrativeness is proxy. Consequently, researchers devised concepts that could reflect the real nature of this factor, such as L2 motivational self system (Dörnyei, 2005), international orientation (Nakata, 1995) and international posture (Yashima, 2002). Out of these, L2 motivational self system was chosen for our investigation. One reason for this was that most of the participants were would-be teachers who were typically inward-looking without ambitions of pursuing international careers. Another lay in a more comprehensive nature of Dörnyei's theory, including both positive and negative aspects of L2 learning motivation.

L2 motivational self system was devised by reforming previous motivation research so as to account for L2 learning motivation (Dörnyei, 2009; Dörnyei & Ushioda, 2011). A core concept of this system is "possible selves" (Markus & Nurius, 1986), which are visions of oneself that are different from oneself in the present state. In other words, possible selves represent what one might be, what one would like to be, or what one is afraid of being in the future. One can have any fantasy, such as becoming a Hollywood movie star or becoming a homeless on a street. What placed restriction on these imaginings was the self-discrepancy theory (Higgins, 1987), dealing with three domains of the self. The actual self, ideal self and ought self respectively represent attributes that one actually possesses, one ideally possesses, and one should possess. Higgins' assumption is that one should be motivated to reduce the difference between one's actual and ideal / ought selves. These affective-cognitive concepts were imported with modification into L2 learning research by Dörnyei (2005): ideal L2 self and ought-to L2 self. Ideal L2 self is what one would like to be as an L2 speaker and is promotion focused. Ought-to L2 self concerns what one should do to avoid possible negative consequences and is prevention focused. Moreover, pertaining to the above enigma, ideal L2 self has shown moderate correlations with integrativeness (Ryan, 2009; Taguchi, et al., 2009). Added to them was the third component, L2 learning experience, concerning motives relevant to learning environment and experience, such as the teacher, curriculum, and peers.

Study

The present study had three purposes. The first of them was to investigate L2 learning motivation, in terms of L2 motivational self system, of university students with interest in ELT. The second was to examine relationships of their perceptions of CBI on ELT with L2 learning motivation and other variables, i.e., content understanding and English proficiency. The third was to examine how their L2 learning motivation was affected by the variables. Accordingly, research questions were addressed as: (1) what is the students' L2 learning motivation in terms of L2 motivational self system?; (2) what relationships do the students' perceptions of CBI on ELT have with L2 learning motivation and other variables, i.e., content understanding and English proficiency?; and (3) what effects do the variables have on the students' L2

learning motivation?

Method

Participants

The participants were 70, mainly sophomores, English majors and minors at a teacher-training university in Western Japan. Since two students did not take the survey, the number of the analyzed students was 68. Their English proficiencies, as measured by self-claimed EIKEN Grade levels, lay roughly in the range of Grades Pre-2 and Pre-1 levels with 31 at Grade 2 or higher levels. Although most of the students were ostensibly would-be teachers, the number of those who chose English teachers as their prospective professions was 21.

CBI Course on ELT

This course, Studies on English Language Teaching A, was taught as shown in Table 1. This was a large course with 70 students because it was mandatory for obtaining the certificate for teaching English at the secondary level. The teaching form partially included workshops because CBI puts emphasis on autonomous learning (Stryker & Leaver, 1997). However, the students' use of Japanese language was frequently noticed in peer interactions. The aims were twofold with more focus on content than language instruction. The latter was not much needed for the participants, possessing approximately 5,000 words vocabulary width (Miyasako, 2014) and a rough knowledge of explicit grammar, but it was assumed effective for those who were presumably at plateau stages to: (a) read over 10 pages of authentic materials per session; (b) receive plenty of comprehensible input in the lectures; and (c) discuss relevant issues with peers. As a textbook that fulfills these conditions and covers essential domains of ELT, we adopted *How to Teach English* (new edition) (Harmer, 2007).

Table 1

A CBI Course on ELT

time	fall semester in 2013
students	70 English majors and minors in an education department
course	Studies on English Language Education A (mandatory for those who want to obtain the certificate for teaching English at the secondary level)
teacher	Japanese instructor (the author)
form	lectures and workshops (the ratio is about 2:1)
purposes	(a) to have students understand basic ideas of ELT; and (b) to have students develop their English proficiency through English exposure and use
coursebook	How to Teach English (new edition) (Harmer, 2007)
frequency	15 weekly sessions

Instruments

The questionnaire was constituted with 81 6-point Likert items. 39 of the items concerning CBI on ELT were analyzed in the previous study; the other 42 items inquiring into the

participants' L2 learning motivation were Japanese translations of the questionnaire that Taguchi, et al. (2009) used in their investigation of L2 motivational self system (Appendix B). This questionnaire did not include items pertaining to "L2 learning experience", following the other research on L2 motivational self system, but included relevant items concerning integrativeness, instrumentality and others for examining the validity of L2 motivational self system. The 42-item questionnaire consisted of the following 10 motivational factors (MFs): criterion measures (CMs), ideal L2 self, ought-to L2 self, family influence, promotion-focused instrumentality, prevention-focused instrumentality, attitudes to learning English, cultural interest, attitudes to L2 community, and integrativeness. Here, CMs concern efforts that learners make in L2 learning.

The participants' content understanding was measured with their 100-point scores and 5-scale (A to E) grades of the CBI course. Admittedly, these scores and grades may have included other factors, but the values supposedly reflected the participants' content understanding, so they were used as indexes of the students' content understanding.

Their English proficiencies were judged by their self-claimed EIKEN Grade levels, which were below Grade Pre-2, Grade Pre-2, Grade 2, Grade Pre-1, Grade 1, above Grade 1 levels. These EIKEN Grade levels were respectively placed at levels 5 to 10 of our English proficiency scale for Japanese learners of English (Table 2). Values corresponding to the participants' levels were used to represent their proficiencies in the data processing. Arguably, students with below Grade Pre-2 level were placed at level 5. This is because these students had learned English for over seven years and passed the entrance examinations with presumably fair scores of English.

Table 2
An English Proficiency Scale for Japanese Learners of English

0	y and y
Level 10	above EIKEN Grade 1
Level 9	around EIKEN Grade 1
Level 8	around EIKEN Grade Pre-1
Level 7	around EIKEN Grade 2
Level 6	around EIKEN Grade Pre-2
Level 5	below EIKEN Grade Pre-2

Analyses

Analyses for answering the first research question began with processing the questionnaire items and calculating Cronbach α coefficients of the 10 MFs. Second, correlation analyses were performed between the MFs to find out their relationships. Third, regression analyses were run on the CMs with the other MFs to identify MFs responsible for their L2 learning efforts.

For the second research question, first, correlation analyses were conducted between the MFs and three CBI-Fs to examine their relationships. Second, regression analyses were performed on the CBI-Fs with MFs so that we could find out what MFs contributed to the participants' perceptions of CBI on ELT.

For the third research question, two-way factorial analyses of variance (ANOVAs) were performed on the MFs between upper and lower groups of the content understanding and English proficiency. The aim for them was to mainly examine whether there were differences in the MFs between the groups. For the upper and lower groups of content understanding and English proficiency, the participants were divided respectively into: (a) students with course grades A or B, or scores 80 or higher, (n = 25) versus the rest (n = 43); and (b) students at EIKEN Grade 2 or higher levels (n = 31) versus the rest (n = 37).

Results and Discussion

L2 Motivational Self System

Table 3 shows means, standard deviations and Cronbach α coefficients of the 10 MFs. First, there were no problems with the coefficients except for MFs 5 (α = .33) and 10 (α = .40). Out of these, the reliability of MF 5 could be barely adjusted by excluding one question item (α = .68; Appendix B). However, this was not the case with MF10, which was eliminated in the following analyses. Despite this, it was confirmed that this questionnaire that Taguchi, et al. devised is a fairly reliable measure of L2 learning motivation.

Graphically, next, means of MFs 1, 2, 5, 7, 8 and 9 (means \geq 4.08) made a great contrast with MFs 3, 4 and 6 (means \leq 3.36) (Figure 1). The former and latter respectively represented positive and negative features of L2 learning motivation. The positive aspects were: criterion measures (MF 1), ideal L2 self (MF 2), promotion-focused instrumentality (MF 5), attitudes to learning English (MF 7), cultural interest (MF 8), and attitudes to L2 community (MF 9). On the other hand, the negatives were: ought-to L2 self (MF 3), family influence (MF 4), and prevention-focused instrumentality (MF 6). Higher figures in the positive aspects may have comforted us teachers. As a matter of fact, however, the participants took the course to obtain the English teaching certificate. The result seems to show what we expect them to be.

Third, with these data we performed correlation analyses between the CMs (MF 1) and the other MFs (Table 4). It was shown that the CMs had significant correlations with MFs 2, 5, 7, 8 and 9. The first four correlations were moderate $(.54 \le rs \le .66, p < .01)$ and the last one was high (r = .71, p < .01). They were the positive MFs with higher values in the questionnaire. It seems that learners' L2 learning efforts, CMs, are related to positive aspects of L2 learning motivation.

Correlation patterns were similar between MFs 2 to 9, where positive and negative MFs were respectively correlated with each other: MF 2 with MFs 5, 7, 8 and 9 (.56 \le rs \le .60, p < .01); MF 5 with MFs 7, 8 and 9 (.41 \le rs \le .57, p < .01); among MFs 7 to 9 (.56 \le rs \le .60, p < .01); and MF 3 with MFs 4 and 6 (.50 \le rs \le .60, p < .01). One exception lay between MFs 5 and 6 (r = .33, p < .01), respectively pertaining to positive and negative aspects of instrumentality.

Table 3
Means and Standard Deviations of Questionnaire Items

Motivation	al factor	k	Mean	S.D.	α
MF 1	Criterion measures	4	4.22	.87	.73
MF 2	Ideal L2 self	5	4.08	.97	.84
MF3	Ought-to L2 self	4	3.27	1.06	.74
MF 4	Family influence	4	3.09	1.32	.87
MF 5*	Promotion-focused instrumentality	4	4.96	.69	.68
MF 6	Prevention-focused instrumentality	5	3.36	1.01	.78
MF 7	Attitudes to learning English	4	4.74	.82	.83
MF8	Cultural interest	4	4.85	.92	.75
MF9	Attitudes to L2 community	4	5.32	.65	.81
MF 10**	Integrativeness	3	5.10	.69	.40

n = 68, k =numbers of items.

^{**}MF 10 was excluded in the following analyses because of the low α .

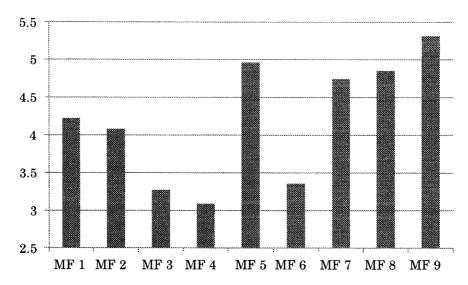


Figure 1. Means of motivational factors.

Table 4
Correlations between Criterion Measures and the Other Motivational Factors

	CMs	MF 2	MF 3	MF 4	MF 5	MF 6	MF 7	MF8	MF 9
CMs	-								
MF 2	.71**	-							
MF3	.03	.06	-						
MF 4	.15	.11	.50**	-					
MF 5	.54**	.59**	.23	.07	-				
MF 6	04	.04	.60**	.05	.33**	-			
MF7	.66**	.59**	.15	.17	.57**	.12	-		
MF8	.58**	.60**	10	01	.41**	11	.56**	-	
MF9	.49**	.56**	.03	.05	.54**	01	.60**	.57**	-

n = 68.

^{*}One item was excluded for adjusting the α .

^{**}p < .01.

Fourth, we ran regression analyses to identify MFs responsible for the participants' L2 learning efforts. One result showed that MF 2 (β = .40, t = 3.43, p < .01) and MF 7 (β = .31, t = 2.66, p < .05) made significant contributions to the CMs [F (8, 59) = 12.35, p < .01, R^2 = .63]. These two MFs indeed had the highest correlations (rs = .71 and .66) with the CMs. The other analysis, with only MFs 2 and 7 for independent variables, showed that these two MFs could explain 59% of the variance of CMs [F (2, 65) = 47.01, p < .01, R^2 = .59], compared with 63% that the eight MFs could account for. It seems that ideal L2 self with attitudes to L2 community lies at the core of their L2 learning motivation.

The importance of these two factors may be interpreted as showing that they represent positive aspects of L2 learning motivation, including MFs 5, 8 and 9. One reason for this is that these two MFs could explain 59% out of 63% of the variance of their L2 learning efforts, possibly with MF 2 accounting for 50% (r = .71). Another comes from the resemblance of correlated MFs, which could be seen between MFs 2 and 5, and between MFs 7, 8 and 9. Promotion-focused instrumentality, MF 5, as well as integrativeness, had often been regarded as an engine to promote L2 learning for EFL learners until it was replaced by newer motivational concepts such as ideal L2 self and international posture (Ryan, 2009; Taguchi, et al., 2009; Ushioda, 2013; Yashima, 2013). The other three factors, MFs 7, 8 and 9, are similar to each other in expressing attitudes toward English language, culture and communities. It is probable that MFs 2 and 7 respectively represent MF 5 and MFs 8 and 9. As a matter of fact, it makes sense that L2 learning efforts are affected by learners' images of themselves as good users of English in the future and their views of learning English.

In sum, admittedly, L2 learning motivation has both positive and negative aspects, but only the positive aspects were relevant to their L2 learning efforts. Particularly, their ideal L2 self and attitudes to learning English were mainly responsible for their L2 learning efforts by explaining 59% of their variance. It seems that the participants' English learning efforts were influenced by their future images of themselves as English users and views of learning English. This summary answers the first research question.

CBI and L2 Learning Motivation

This section reports relationships between the participants' perceptions of CBI on ELT and MFs. Table 5 shows means and standard deviations of the participants' CBI-Fs, and Table 6 shows correlations between their MFs and CBI-Fs. The first CBI-F, effective factor, concerns learner perceptions that CBI is effective in content understanding and in developing English proficiency. This factor had moderate correlations with CMs, MFs 2, 5, 7, 8 and 9 (.43 \leq rs \leq .59, p < .01). The pattern of correlations between CBI-F 1 and MFs 2, 5, 7, 8 and 9 was the same as CMs had with the positive MFs in the last section. Since CMs gauge L2 learning efforts, this pattern seems to show that learners' positive MFs, perceptions of CBI effectiveness, and English learning efforts are complexly related to each other.

Table 5
Means and Standard Deviations of CBI Factors

	k	α	Mean	S.D.	
CBI factor 1 (effective)	7	.85	4.63	.65	
CBI factor 2 (approving)	5	.81	3.73	.82	
CBI factor 3 (English use)	3	.72	3.94	.76	

n = 68.

Table 6
Correlations of CBI Factors with Motivational Factors

	CMs	MF 2	MF 3	MF 4	MF 5	MF 6	MF 7	MF 8	MF 9
CBI-F 1	.51**	.53**	.13	.10	.43**	.01	.59**	.44**	.51**
CBI-F 2	.53**	.55**	.18	.08	.16	03	.27*	.41**	.17
CBI-F3	.41**	.55**	.32**	.30*	.30*	.14	.43**	.36**	.26*

n = 68, *p < .05, **p < .01.

CBI-F 2, approving factor, concerns learner perceptions of possessing a favorable impression of CBI on ELT. This factor had moderate correlations with CMs, MFs 2 and 8 (.41 $\le rs \le .55$, p < .01), and a weak correlation with MF 7 (r = .27, p < .05). Contrasting with CBI-F 1, the second CBI-F had no correlations with promotion-focused instrumentality, MF 5, and attitudes to L2 community, MF 9. This may have been because CBI-F 2 is an affective factor about what is taking place in the teaching or learners' general impressions of the learning atmosphere.

The third CBI-F, English-use factor, concerns learner perceptions of acknowledging English use in CBI on ELT. This factor had moderate correlations with CMs, MFs 2, 3, 7 and 8 $(.32 \le rs \le .55, p < .01)$, and weak correlations with MFs 4, 5 and 9 $(.26 \le rs \le .30, p < .05)$. They were a wide range of weaker correlations, noticeably including negative factors, MFs 3 and 4. These negative factors may have reflected the participants' consciousness of English use in the instruction because the students knowingly needed to improve their English (MF 3) and were aware of family expectation pertaining to this point (MF 4).

Next, we conducted regression analyses with MFs 2 to 9, aiming to examine MFs responsible for the CBI-Fs. The results were: (a) MF 7 (β = .34, t = 2.40, p < .05) significantly contributed to CBI-F 1[F (8, 59) = 5.57, p < .01, R^2 = .43]; (b) MF 2 (β = .67, t = 4.76, p < .01) and MF 3 (β = .43, t = 2.91, p < .01) significantly contributed to CBI-F 2 [F (8, 59) = 2.60, p < .01, R^2 = .46]; and (c) MF 2 (β = .51, t = 3.57, p < .01) significantly contributed to CBI-F 3 [F (8, 59) = 5.71, p < .01, R^2 = .44]. In other words, attitudes to learning English was responsible for the first effective factor; ideal L2 self with larger β -value primarily and ought-to L2 self secondarily could explain the second approving factor; and ideal L2 self made a contribution to the third English-use factor.

When the participants' CMs, content understanding (n = 68, mean = 73.96, S.D. = 14.51) and English proficiency (n = 68, mean = 6.28, S.D. = .97) were added to the independent variables, the analyses made a major difference in the second CBI-F, where CMs ($\beta = .42$, t = 2.80, p < .01), MF 2 ($\beta = .50$, t = 3.38, p < .01), MF 3 ($\beta = .48$, t = 3.42, p < .01) and MF 5

 $(\beta = -.34, t = -2.49, p < .05)$ turned out to be significant contributors to CBI-F 2 [F (11, 56) = 6.33, p < .01, $R^2 = .55$]. On the other hand, there were no changes in the contributors to the first and third CBI-Fs.

With these results, issues are discussed concerning relationships between the participants' perceptions of CBI on ELT and L2 learning motivation. A motive for this investigation lay in the results of the previous study, where the participants' content understanding was barely the only significant contributor to CBI-F 3 [β = .34, t = 2.71, p < .01; F (2, 65) = 3.76, p < .05, R^2 = .10; Miyasako, under review]. This made us speculate that MFs might have been responsible for their perceptions of CBI.

This speculation was supported by the results. First, their CBI perceptions had higher correlations with MFs 2 to 9, where 11 out of the 15 correlations were moderate ($.32 \le rs \le .55$, p < .01), contrasting with weaker correlations with the content understanding and English proficiency ($.26 \le rs \le .33$, p < .05; *ibid*).

Second, there were MFs responsible for the CBI-Fs: MF 7 (β = .34, t = 2.40, p < .05), MFs 2 and 3 (MF 2: β = .67, t = 4.76, p < .01; MF 3: β = .43, t = 2.91, p < .01), and MF 2 (β = .51, t = 3.57, p < .01) respectively accounted for the first, second and third CBI-Fs. More specifically, 34% of CBI-F 1 variance was explained by MF 7 (r = .59); 30% and 2% of CBI-F 2 variance was respectively explained by MFs 2 and 3 in another regression analysis with these two MFs [F (2, 65) = 15.58, p < .01, R^2 = .32]; and 30% of CBI-F 3 variance was explained by MF 2 (r = .55). In short, about one-third of the participants' perceptions of CBI on ELT could be accounted for by these MFs. Thus, it is deduced that L2 learning motivation plays a significant role in learners' perceptions of CBI on ELT.

Interpretation of these explanatory MFs of CBI-Fs is the next issue. MF 7's explanation of CBI-F 1 means that attitudes to learning English tends to affect learner perception of CBI effectiveness. This can be interpreted as showing that those who are fonder of learning English are more likely to make English learning efforts, which makes them more conscious of the effectiveness of CBI on ELT. This interpretation is supported by the nearly high correlation between MF 7 and CMs (r = .66, p < .01).

Explanation of CBI-F 2 by MFs 2 and 3 means that ideal L2 self and ought-to L2 self may affect learner approval of CBI. Admittedly, these two MFs appear to contradict each other, but their ambivalent co-existence has often been reported as reflecting the complex affective and cognitive nature of L2 learners (Ryan, 2009; Taguchi, et al., 2009; Ushioda, 2013; Yashima, 2013), who can simultaneously have fantasies of being good speakers of L2 and feel pressed to learn the language. Therefore, this type of learner may be more likely to approve CBI on ELT than those who are just positively or negatively motivated, or demotivated.

MF 2's explanation of CBI-F 3 means that ideal L2 self also tends to affect learner perception of English use in CBI. It makes sense to interpret this relationship as showing that learners who would like to be good speakers of English are presumably more interested in using it, which makes them more aware of English use in CBI.

The final issue concerns the regression analyses with the CMs, content understanding and English proficiency as well as MFs 2 to 9. First, the participants' content understanding and English proficiency were explanatory variables in none of them. This confirmed their weak effects on CBI-Fs in the analyses of the previous study (*ibid*). Second, only the second CBI-F

had a major change, where CMs and MF 5 joined, as explanatory factors, the MFs 2 and 3, which were revealed in the analysis with only the MFs. CMs as an explanatory factor matched our expectation because of similar correlations that CMs and MF 2 had with CBI-F 2 (r = .53; r = .55). Also, it sounds natural that English learning efforts tend to contribute to learner approval of CBI. However, MF 5 negatively contributed to CBI-F 2 ($\beta = -.34$, t = -2.49, p < .05), meaning that learners with promotion-focused instrumentality tend to disapprove of CBI. A key for interpreting this may lie in the questionnaire items for this factor, which inquire into the participants' English learning as a tool for better jobs, global careers and living abroad. Since the would-be teachers were typically inward-looking without much ambition in these questioned respects, it is possible that lower points in these items negatively affected CBI-F 2.

To summarize, the participants' MFs were shown to be responsible for their perceptions of CBI on ELT by explaining about a third of the variance. Explanatory factors for the three CBI-Fs were ideal L2 self, ought-to L2 self, and attitudes to learning English; particularly ideal L2 self, involved with CBI-Fs 2 and 3, was unveiled to play a vital role in accounting for their perceptions of CBI. This summary answers the second research question.

Effects on L2 Learning Motivation

So far, the participants' L2 learning motivation and its relationships with CBI-Fs have been revealed. This section further examines effects of the participants' content understanding and English proficiency on their L2 learning motivation.

Table 7 shows means and standard deviations of MFs for upper and lower groups of the content understanding and English proficiency. The upper content-understanding group was higher in the means of all the MFs 1 to 9, but noticeably in MFs 3, 4 and 6, the upper English-proficiency group was lower in the means. They are negative MFs, representing ought-to L2 self, family influence, and prevention-focused instrumentality respectively. It may be that these

Table 7
Means and Standard Deviations of Motivational Factors for Upper and Lower Groups of Content Understanding and English Proficiency

		CMs	MF 2	MF 3	MF 4	MF 5	MF 6	MF 7	MF 8	MF 9
CU										
Upper	Mean	4.60**	4.52**	3.46	3.19	5.30	3.54	5.02	5.11	5.40
	S.D.	.88	1.02	1.26	1.41	1.45	1.23	.98	.79	.62
Lower	Mean	3.99	3.81	3.15	3.03	4.62	3.24	4.57	4.68	5.26
	S.D.	.78	.84	.91	1.27	.62	.84	.66	.96	.67
EP										
Upper	Mean	4.49*	4.43**	3.14	2.92	5.16	3.35	4.96	5.06	5.38
	S.D.	.84	.91	1.09	1.39	1.29	.96	.82	.88	.62
Lower	Mean	4.00	3.79	3.38	3.24	4.64	3.36	4.56	4.67	5.26
	S.D.	.84	.93	1.03	1.26	.77	1.06	.78	.92	.68

Ns for upper and lower groups for CU were respectively 26 and 42. Ns for upper and lower groups for EP were respectively 31 and 37. CU and EP stand for content understanding and English proficiency. *p < .05, **p < .01.

students with lower English proficiency possessed greater negative MFs, pushing them to study English, due to their fearing unwanted outcomes and worrying about family pressure. It may be also reversely interpreted that their English proficiencies were lower because of this MF pattern of theirs, i.e., generally lower but higher in the negatives.

In order to statistically examine this phenomenon as well as effects of the English proficiency and content understanding on MFs, we tried conducting two-way factorial ANOVAs. The results in Table 8 show that there were four MFs with significant main or interaction effects. First, the upper content-understanding group (mean = 4.60, S.D. = .88) was significantly higher in the means of CMs than the lower group (mean = 3.99, S.D. = .78), the effect size being medium [F (3, 64) = 5.85, p < .05, η^2 = .08]. This makes sense because the content understanding was measured as the participants' CBI course scores. It seems that students who had better grades were more likely to make L2 learning efforts.

Second, the upper English-proficiency group (mean = 4.43, S.D. = .91) had significantly higher means of MF 2 than the lower group (mean = 3.79, S.D. = .93), the effect size being medium [F (3, 64) = 5.84, p < .05, η^2 = .07]. The upper content-understanding group (mean = 4.52, S.D. = 1.02) was also higher in the means than the other group (mean = 3.81, S.D. = .84), with a medium-sized effect [F (3, 64) = 6.13, p < .05, η^2 = .08]. It seems natural that students with higher English proficiencies and content understanding tend to have better imagined selves, i.e., ideal L2 self. In this case, we should acknowledge a role that ideal L2 self plays in L2 learning. Ideal L2 self can be considered key to L2 development, with a strong correlation with L2 learning efforts, CMs, r = .71, p < .01 (Table 4). Admittedly, ideal L2 self cannot be said to cause learners' English proficiencies and content understanding, but it may be worth seeking to develop learners' better self-images as L2 users in the future.

Table 8

Results of 2 x 2 ANOVAs on MFs

· ·	English P	Content U	English P x Content U
CMs	F(3, 64) = .18	F(3, 64) = 5.85*	F(3, 64) = .02
MF2	F(3, 64) = 5.84*	F(3, 64) = 6.13*	F(3, 64) = .94
MF3	F(3, 64) = .59	F(3, 64) = 2.13	F(3, 64) = 5.72*
MF4	F(3, 64) = 1.18	F(3, 64) = .57	F(3, 64) = .01
MF5	F(3, 64) = 4.76*	F(3, 64) = 5.25*	F(3, 64) = 8.87**
MF6	No analysis because of	the unequal variances	
MF7	F(3, 64) = 1.80	F(3, 64) = 3.35	F(3, 64) = .62
MF8	F(3, 64) = 1.53	F(3, 64) = 2.21	F(3, 64) = .10
MF9	F(3, 64) = .54	F(3, 64) = .47	F (3, 64) = .99

n = 68. U and P stand for understanding and proficiency.

Third, since there was a significant medium-effect interaction between the variables for MF 3 [F (3, 64) = 5.75, p < .05, η^2 = .08], post hoc tests were performed to examine simple main effects of the variables. One result was that students with lower content understanding and higher English proficiency (n = 15, mean = 2.62, S.D. = .62) had significantly lower means

^{*}p < .05, **p < .01.

of MF3 than students with lower content understanding and lower English proficiency (n = 27, mean = 3.44, S.D. = .92) [mean difference = -.82, F (1, 64) = 6.41, p < .05]. The other was that students with higher English proficiency and higher content understanding (n = 16, mean = 3.63, S.D. = 1.23) were significantly higher than students with higher English proficiency and lower content understanding (n = 15, mean = 2.62, S.D. = .62) [mean difference = 1.01, F (1, 64) = 7.63, p < .01].

These results can explain the above-mentioned reverse scores in MF 3 between the upper and lower English-proficiency groups. It seems that students with higher English proficiency but lower content understanding were responsible for the phenomenon. They may not have studied sufficiently for this course because their ought-to L2 self were lower. Contrastingly, higher English-proficiency students who got higher course scores showed stronger ought-to L2 self, which probably forced them to study to meet the course requirements.

Fourth, the analysis for MF 5 revealed a significant medium-effect interaction effect $[F\ (3,\ 64)=8.87,\ p<.01,\ \eta^2=.11].$ The post hoc tests for simple main effects showed that students with higher content understanding and higher English proficiency $(n=16,\ mean=5.79,\ S.D.=1.45)$ were significantly higher in the means of Mf 5 than students with higher content understanding and lower English proficiency $(n=10,\ mean=4.52,\ S.D.=1.11)$ [mean difference = 1.27, $F\ (1,\ 64)=10.91,\ p<.01$]. Also shown was that students with higher English proficiency and higher content understanding $(n=16,\ mean=5.79,\ S.D.=1.45)$ had significantly higher means of MF 5 than students with higher English proficiency and lower content understanding $(n=15,\ mean=4.49,\ S.D.=.63)$ [mean difference = 1.30, $F\ (1,\ 64)=14.31,\ p<.01$].

These results may show a catalytic part that promotion-focused instrumentality plays in L2 learning. Since students with lower promotion-focused instrumentality are not likely to be higher both in English proficiency and higher content understanding, it may be implied that these students need promotion-focused instrumentality serving as catalyst to push them higher in both of the variables. Also, this implication may be in line with the above mentioned view that promotion-focused instrumentality, as well as integrativeness, is an engine to promote L2 learning. Now that ideal L2 self seems to have replaced integrativeness, promotion-focused instrumentality, together with ideal L2 self, seems to be a promoter of L2 development, which is also supported by a moderate correlation between them (r = .59, p < .01).

Finally, we tried conducting a two-way factorial ANOVA for MF 6, but it was prevented by the unequal variances $[F\ (3,\ 64)=3.84,\ p<.05]$. However, there was a difference in the raw means of MF 6 between upper and lower content-understanding students with higher English proficiency (upper: n=16, mean=3.80, S.D.=1.05; lower: n=15, mean=2.88, S.D.=.56), where the ANOVA would have revealed a significant interaction effect. In order to examine this presumption, we performed a post hoc test between these sub-groups and unveiled a significant difference in the means of MF 6 between them $[mean\ difference=.92,\ F\ (1,\ 64)=6.92,\ p<.05]$.

This result made a contrast with MF 5. Prevention-focused instrumentality is a negative MF, which pushes you to study for preventing your failures or fearing unwanted outcomes. Since it cannot play a catalytic role of MF 5 in L2 learning, it is understandable that students

with higher content understanding had a smaller difference in the raw means of MF 6 between the upper and lower English-proficiency sub-groups (upper: n = 16, mean = 3.80, S.D. = 1.05; lower: n = 10, mean = 3.12, S.D. = 1.43). It seems that prevention-focused instrumentality, together with ought-to self (r = .60, p < .01), is a necessary evil for L2 learning.

In sum, there are mainly five MFs affected by the participants' English proficiency and content understanding: CMs and MFs 2, 3, 5 and 6. They are positively ideal L2 self and promotion-focused instrumentality, negatively ought-to L2 self and prevention-focused instrumentality, and L2 learning efforts. Since the effects are not causational, these MFs can be interpreted as relevant to fostering learners' English proficiency and content understanding. This is an answer to the third research question.

Conclusion

This exploratory study investigated would-be teachers' L2 learning motivation, its roles in their perceptions of CBI on ELT, and effects relevant to it. Main findings were: (a) would-be teachers' L2 learning motivation is positively natured, represented by ideal L2 self and attitudes to learning English; (b) these two MFs, partially with ought-to L2 self, can explain about a third of their perceptions of CBI on ELT; and (c) MFs that are likely to be relevant to their English proficiency and content understanding are positively ideal L2 self and promotion-focused instrumentality, and negatively ought-to L2 self and prevention-focused instrumentality.

The first finding may be surprising because Japanese university students are often believed to be negatively motivated, represented by ought-to L2 self, but this finding can be welcomed. As the second finding shows, students with higher ideal L2 self and attitudes to learning English are more likely to approve of CBI on ELT and recognize its effectiveness and English use there. Also, the third finding shows the relevance of ideal L2 self, coupled with promotion-focused instrumentality, to learners' content understanding and English proficiency, without denying the relevance of two negative MFs. Here, we can conclude that ideal L2 self, with support of ought-to L2 self, is a vital player of L2 learning motivation. Moreover, it can be deduced that CBI on ELT, matching their L2 learning motivation, may foster their understanding of ELT and English proficiency.

One thing we should be cautious about is that L2 learning motivation examined in this study mainly deals with learners' future images of their L2 use and elements relevant to it. In order to accomplish their imagined selves, learners need to operate their L2 learning motivation. They are required to be reflective learners, by maintaining or increasing their motivation, in order to plan, monitor and evaluate their learning behaviors. Therefore, the findings of this study are just a portion pertaining to L2 learning motivation at an initial stage.

Other limitations include the CBI-Fs, content understanding and English proficiency. Although the CBI-Fs were legitimately determined in the previous study, they can be improved through examinations with other learners. Learner content understanding gauged as the course scores should be replaced with measures that can eliminate contaminating elements. Learner English proficiency should be directly measured with proficiency test scores.

Despite these limitations, the findings were significant in providing data or evidence for

CBI on ELT and relevant L2 learning motivation. Although this was just a small step in exploring them, we should lean forward to investigate CBI on ELT so that we can unveil roles that the instruction plays in training English teachers. There is no doubt that training and developing teachers pertains to the betterment of ELT in Japan.

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Appendix A: Three CBI factors and their question items

This is the English translation of CBI factors.

Factor I (effective): acknowledging effectiveness of CBI in content understanding and in developing English proficiency ($\alpha = .85$)

This CBI was useful.

I am interested in English language teaching.

Do you think CBI can deepen your knowledge of English language teaching?

Do you think you can learn English language teaching sufficiently in CBI?

CBI is tough but rewarding.

CBI is useful in English language teaching.

Do you think CBI can raise your English learning motivation?

Factor II (approving): having a favorable impression of CBI on ELT (α = .81)

In this CBI, I had more interaction with peers than in other courses.

Would you be favorable to all English courses being replaced with CBI courses?

This CBI matched the students' intellectual levels.

This CBI was fun.

If possible, I want to take more CBI courses.

Factor III (English use): acknowledging English use in CBI on ELT (α = .72)

I learned a lot of English in this CBI.

I had sufficient occasions to discuss things in this CBI.

I could develop my English proficiency in this CBI.

Appendix B: 42 CBI question items on L2 learning motivation

This is the questionnaire that Taguchi et al. (2009, pp.90–97) devised.

- *This question item for promotion-focused instrumentality was excluded to adjust the Cronbach coefficient for this motivation factor.
- **This motivation factor, integrativeness, was excluded because of the low Cronbach coefficient

Criterion measures

If an English course was offered at university or somewhere else in the future, I would like to take it.

I am working hard at learning English.

I am prepared to expend a lot of effort in learning English.

I think that I am doing my best to learn English.

Ideal L2 self

I can imagine myself living abroad and having a discussion in English.

I can imagine a situation where I am speaking English with foreigners.

I imagine myself as someone who is able to speak English.

Whenever I think of my future career, I imagine myself using English.

The things I want to do in the future require me to use English.

Ought-to L2 self

I study English because close friends of mine think it is important.

I have to study English, because, if I do not study it, I think my parents will be disappointed with me.

Learning English is necessary because people surrounding me expect me to do so.

My parents believe that I must study English to be an educated person.

Family influence

My parents encourage me to study English.

My parents encourage me to take every opportunity to use my English (e.g. speaking and reading).

My parents encourage me to study English in my free time.

My parents encourage me to attend extra English classes after class (e.g. at English conversation schools).

Promotion-focused instrumentality

Studying English can be important to me because I think it will some day be useful in getting a good job.

*Studying English is important to me because English proficiency is necessary for promotion in the future.

Studying English is important to me because I would like to spend a longer period living abroad (e.g. studying and working).

Studying English can be important for me because I think I'll need it for further studies on my major.

Studying English is important to me because with English I can work globally.

Prevention-focused instrumentality

I have to learn English because without passing the English course I cannot graduate.

I have to study English because I don't want to get bad marks in it at university.

I have to study English; otherwise, I think I cannot be successful in my future career.

Studying English is necessary for me because I don't want to get a poor score or a fail mark in English proficiency tests.

Studying English is important to me because, if I don't have knowledge of English, I'll be considered a weak student.

Attitudes to learning English

I like the atmosphere of my English classes.

I find learning English really interesting.

I always look forward to English classes.

I really enjoy learning English.

Cultural interest

Do you like the music of English speaking countries?

Do you like English films?

Do you like English magazines, newspapers, or books?

Do you like TV programmes made in English-speaking countries?

Attitudes to L2 community

Do you like to travel to English speaking countries?

Do you like the people who live in English-speaking countries?

Do you like meeting people from English-speaking countries?

Would you like to know more about people from English-speaking countries?

**Integrativeness

How important do you think learning English is in order to learn more about the culture and art of its speakers?

How much would you like to become similar to the people who speak English?

How much do you like English?