THE PERCEIVED ENGLISH LANGUAGE LEARNING OUTCOMES ASSOCIATED WITH PROJECT-BASED LANGUAGE LEARNING: A CASE STUDY AT A JAPANESE JUNIOR COLLEGE

TIMOTHY PAUL MORITOSHI

Doctor of Philosophy

ASTON UNIVERSITY

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Aston University

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Timothy Paul Moritoshi

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Summary

Scant research exists on the language learning outcomes of Project-Based Language Learning (PBLL) to assist foreign language teachers in deciding whether and how to implement PBLL. This study therefore asks:

What are the perceived English language learning outcomes associated with Project-Based Language Learning when applied to a Japanese junior college's EFL courses?

Working within a constructivist paradigm appropriate for classroom-based research, a mixed methods design was used to conduct a case study. Quantitative and qualitative data were collected via pre-/post-project surveys and semi-structured interviews, field observation notes, Students' Project Activities (SPA) surveys and students' project output.

The setting was a Japanese junior college with 28 low-level English as a Foreign Language (EFL) students divided across three groups: Writing ($n=13$), Presentation ($n=9$) and Oral English ($n=6$).

Participants' pre-project surveys provided self-evaluated baseline levels in speaking, listening, reading, writing, grammar, vocabulary, spelling and pronunciation. After finishing one of three eight-week long projects to develop these EFL areas, participants completed a post-project survey to obtain revised self-evaluations. Changes in perceived levels were calculated and are presented and discussed with reference to other data.

Results indicate perceived slight improvements in EFL macro-skills and knowledge categories. SPA data confirm these findings, refute quantitative indications of no perceived improvement in some cases and provide concrete examples of items learned or corrected. Data from the pre-/post-project interviews, field observation notes and project output generally support these findings, often adding context, aiding interpretation. While group work, peer-learning and the process approach to writing appear to enhance perceptions of learning and the learning process, students' excessive L1 use likely detract from them.

PBLL appears to enhance the perception of EFL skills and knowledge development to varying degrees in this setting. Related discussion acknowledges the study's limitations, highlights implications for pedagogic practice and suggests directions for future research.

Keywords: project-work, language skills, language knowledge, Communicative Approach, communicative competence

Dedication

To my wife, Yan, who is tenacity and patience personified. Thank you for your support, especially in caring for Rika as she grew to infancy. Also, to my children, Hinako, Kotaro and Rika, as an example of what is possible if you test your own limits.

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I must also acknowledge the efforts of the participants, particularly those who volunteered their free time to be interviewed. Since their participation in this study they have graduated and moved on, but my gratitude remains.

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Multi-lingual, cross-cultural research brings its own challenges. I was lucky enough to have with me Naoko Tahara, a very highly respected and experienced translator, whose sensitive translations and work have helped to bring the students' voice to the fore. Without her assistance in creating the forms used in this study and in giving the intended meaning to participants' translated responses, it would have been impossible for me to work through the countless linguistic and cultural minutiae. *Domo arigatou gozaimashita Naoko-san*.

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Finally, to my wife, Yan, for her support, patience and hard work which enabled me to study while there was so much to do at home. Thank you.

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List of Abbreviations

ALT: Assistant Language Teacher

CBT: Computer-Based Test

CLT: Communicative Language Teaching

EF: Education First Limited

EFL: English as a Foreign Language

EIKEN: *Jitsuyō Eigo Ginō Kentei* (Test in Practical English Proficiency)

ELT: English Language Teaching

EPI: English Proficiency Index

ESL: English as a Second Language

FL: Foreign Language

FON: Field Observation Notes (form)

IBT: Internet-Based Test

IELTS: International English Language Testing System

IT: Information Technology

JET: Japan Exchange and Teaching (Program)

JTE: Japanese Teacher of English

L1:   First language (here usually referring to Japanese or occasionally Chinese)

L2:   Second language (here usually referring to English)

LAD: Language Acquisition Device

LCD: Liquid Crystal Display (effect)

MEXT: Japan's Ministry of Education

n: number (of participants)

OE: Oral English course

p: probability (statistical measure)

P: Presentation course

PBL: Project-Based Learning

PBLL: Project-Based Language Learning

PBT: Paper-Based Test

PPP: Presentation-Practice-Production

QUAL: Qualitative (data or analysis)

QUAN: Quantitative (data or analysis)

r: A statistical measure of correlation

RP: Received Pronunciation

SD: Standard Deviation

SLA: Second Language Acquisition

SPA: Students' Project Activities (form)

SPSS: Statistical Package for the Social Sciences (software)

TBLL: Task-Based Language Learning

TOEFL: Test of English as a Foreign Language

TOEIC: Test of English for International Communication

TL: Target Language (with respect to this study this generally means English)

W: Writing course

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Chapter 1: Introduction

This study examines the perceived language learning outcomes among students when the Project-Based Language Learning (PBLL) approach is applied in a Japanese junior college's English as a Foreign Language (EFL) courses. The use of project-work as a form of practical learning, or 'learning by doing', is a long-established form of teaching and learning in general education. Snedden is often credited in modern literature with first advocating its inclusion in educational programs early in the 20th century (Alberty, 1927; Adderley et al, 1975; Holt, 1994) but it was almost certainly employed prior to that, for example in apprenticeships. Dewey also saw the value in such practical learning (Dewey & Dewey, 1915), as did his mentee, Kilpatrick, who wrote of the 'Project Method':

> …wholehearted purposeful activity in a social situation as the typical unit of school procedure is the best guarantee of the utilization of the child's native capacities now too frequently wasted. Under proper guidance purpose means efficiency, not only in reaching the projected end of the activity immediately at hand, but even more in securing from the activity the learning which it potentially contains. (1918, p. 18)

The approach was advocated then, as it is now, because it makes the learner a physically and cognitively active participant in the learning process, and in so doing both enhances the depth of learning and broadens the range of learning outcomes. Not all of those outcomes are intended by the teacher or central to a course of study, but are nonetheless potentially useful as part of personal, social, academic and/or professional development.

While project-work in one form or another has likely been part of many people's educational experience, it seems to have taken a surprisingly long time for PBLL to appear in foreign language classrooms. This student-centred pedagogic approach adheres to the principles of the Communicative Approach and, whilst there is no universally accepted definition of PBLL, at its simplest it can be defined as an approach that requires students of a foreign language to work in small groups to collaboratively produce a piece of work

over an extended period of time using the target language (TL). The tasks that they must complete in order to produce that work create numerous and ongoing communicative needs which can be met through authentic, meaningful, contextualised and self-directed TL use.

The earliest published paper relating to PBLL in an EFL classroom seems to have been Eslava & Lawson's (1979) 'silence movie' project. The number of works on EFL project-work published in related literature since then shows that interest in the approach has grown significantly. One reason for this is that, as Eslava & Lawson (1979) point out, it provides original and stimulating "situational contexts" (p. 65) within which students can apply the TL in a genuinely communicative way. Another reason for an apparently growing interest in project-work among foreign language (FL) teachers is that, as the number of related published works has risen, it has become increasingly clear that the use of project-work in language classrooms, that is to say 'Project-Based Language Learning', has the potential for learning outcomes far beyond the linguistic (Stoller, 2006, p. 25).

The PBLL approach has now gained some traction in Japanese colleges and universities. Indeed several of the works cited in this thesis, such as Hatanaka (2008), Fushino (2010) and Fujioka (2012), come from work conducted within Japanese tertiary educational institutions. The specific learning objectives of PBLL projects are widely diverse but usually seek to improve one or more aspects of students' TL 'communicative competence' (Canale & Swain, 1980; Canale, 1983). The perceived need to emphasise the development of communicative competence in Japan's higher education stems from the problem that its public school EFL education does not seem to offer sufficient quantity or quality of TL use opportunities for students to substantially develop their English communicative competence (Butler & Iino, 2005; Kikuchi & Browne, 2009, p. 173). This has resulted in generally low EFL proficiency among Japan's public school-leavers.

While some EFL educators in Japan may see Project-Based Learning (PBL) or PBLL as viable solutions to this problem, van Lier (2006, p. xii) points out that:

> ...the crucial question of empirical (both quantitative and qualitative) research into the effects and conditions of PBL [is] something that will require much additional attention and effort in the future.

Though increasing in number and scale to gradually build a body of evidence in favour of PBLL, such research remains relatively sparse compared to that in other EFL-related fields (Stoller, 2006, p. 35). According to Kobayashi (2006, p. 72) most of that which does exist focuses largely on aspects of project-work's implementation processes, for example Stoller (1997) and Fujioka (2012). Students' and teachers' evaluations of PBLL have also featured, for example Eyring (1989), Beckett (1999) and Petersen (2008). Empirical studies on the outcomes, especially the language learning outcomes associated with the approach are somewhat sparse. Several studies of a retrospective, perceptual nature are available. For example Kemaloglu (2010) has shown that her students perceived some gains in writing, speaking, vocabulary and grammar through PBLL in intensive EFL classes at a Turkish university. However, pre-/post-project designs that measure actual change in aspects of TL proficiency are very rare. Simpson (2011) set in a Thai university is one such, but it seems that no similar studies have been conducted in Japan. Would the perceived and actual changes found by Kemaloglu (2010) and Simpson (2011) respectively, be observed in other national educational systems? To what extent can PBLL improve listening and reading or other aspects of language knowledge such as spelling and pronunciation? Can PBLL help with the phonological difficulties that many Japanese EFL learners struggle with? This gap in the literature means that Japan-based EFL educators do not yet have the empirical research needed to make an informed decision as to whether or not to apply PBLL in their classrooms.

The present thesis therefore aims to contribute to this field by responding to calls from van Lier (2006, p. xiv), Stoller (2006, p. 35) and Petersen (2008, p. 117) for more empirical research into PBLL. In particular, through the use of pre- and post-project interviews and surveys and post-project session surveys, the study examines the perceived EFL gains that Japanese junior college EFL learners reported after doing an eight-week long PBLL project in their English courses. Researcher/teacher field observation notes are also used to provide an alternative perspective on classroom events and the end products that students created through their projects are analysed to highlight examples of improved EFL language knowledge.

While measuring actual learning through a pre-/post-treatment, quasi-experimental design might yield seemingly more definitive results, as with Simpson (2011), the methodological complexities involved make this highly problematic (Petersen, 2008, p. 117). This study therefore investigates students' reports of *perceived* EFL learning. This would still make an important and valuable contribution to the field because regardless of whether or not learning is *actually* occurring, students' *perception* that it is can still have a positive effect on their motivation to continue studying and practicing EFL. As Dornyei (2003, p. 9) points out "attributional processes are assumed to play an important motivational role in language studies".

In particular the study focuses on two main areas of EFL learning: language macro-skills (speaking, listening, reading and writing) and language knowledge (grammar, vocabulary, spelling and pronunciation). These form the mainstay of the single aspect of communicative competence with which this study is primarily concerned: linguistic competence. The research question with which this study concerns itself is therefore:

What are the perceived English language learning outcomes associated with Project-Based Language Learning when applied to a Japanese junior college's EFL courses?

Research in this area seems important because it gives EFL teachers more information with which to decide whether or not to implement PBLL in their courses. The study may also reveal issues of pedagogic practice relating to project-work design and implementation useful to educators in similar settings and beyond.

In Chapter 2, I describe the general educational context within which this study is situated, first by explaining Japan's general educational system, then more specifically the various levels of its EFL education system and their associated learning objectives and problems. Chapter 3 reviews literature which sets out the philosophical, theoretical and pedagogic bases for PBLL and offers a historical overview of related empirical research. It then reviews several studies reporting FL learning outcomes associated with PBLL and highlights problems with the approach. This culminates in a call for further empirical research into PBLL, to which this study is a response. Chapter 4 then presents the rationale for my choice of research paradigm, design, tradition and data collection tools, along with a brief examination of how I positioned myself as teacher/researcher and of issues in conducting multilingual research. Chapter 5 sets out the study's methodology, including a description of the research setting, participants, ethics issues, materials and procedures. In Chapter 6, I show how the dataset collected via that methodology was organised, prepared for analysis, coded and analysed to obtain the results. Those pertaining to perceived EFL skills development are presented and discussed in Chapter 7, while those for perceived EFL knowledge learning are in Chapter 8. Finally, Chapter 9 acknowledges the study's limitations, explores the implications of the results for

pedagogic practice, suggests directions for future research and closes the thesis with the conclusions drawn.

This chapter has established the context for this thesis and demonstrated a gap in the empirical literature relating to PBLL's actual or perceived language learning outcomes, particularly within the context of Japanese higher education. It has also shown how this study seeks to respond to that gap through the stated research question. The following chapter moves the study forward by explaining the general educational context within which it is set.

Chapter 2: The wider research context

An EFL course of study does not exist within an institutional, educational, social, economic or political vacuum, but within all of these wider contexts simultaneously. The students that this researcher works with daily bring with them several years of preceding EFL education which, it will be argued, has generally done little to develop their English communicative competence or their interest in, or enjoyment of English as a living language. In considering whether PBLL might be a possible solution to these problems, it is useful first to outline issues within the wider school EFL education system which have been identified as their root causes. This situates both the study and its participants' prior EFL learning experiences within their wider educational context. Therefore, before discussing in Chapter 3 literature more specifically related to the PBLL approach and its reported FL learning outcomes, a brief examination of Japan's general and EFL education systems will serve both to contextualise and justify what follows.

After providing an overview of Japan's general and EFL education systems in section 2.1, I make the case in section 2.2 that, in its current form, the latter is often failing to develop students' English (i.e. their second language or 'L2') proficiency to the level one might expect from between five and eight years of school EFL education. An examination in section 2.3 of the main underlying, deeply entrenched and systemic institutional, pedagogic, socio-cultural, economic and political causes for this long-standing situation will explain how it arose and why it persists. It will also show that these causes are mutually supportive and self-perpetuating in nature, due largely to the self-interest of those parties responsible and that, consequently, the problem of low English proficiency among Japan's school-leavers looks set to continue for the foreseeable future. Finally in section 2.4, I highlight the point that while PBLL, applying as it does the principles of the Communicative Approach, might help to raise college students' general English

proficiency, there is a lack of empirical research conducted to examine the language learning outcomes associated with this approach. This serves as the justification for this study.

2.1 An overview of Japan's general and EFL education systems

Mandatory education in Japan starts with elementary school at age six (figure 2.1 below).

School Year / Normal Age

Correspondence Courses
Correspondence Courses
Graduate Schools
Correspondence Courses
Specialized Training College Specialized Courses
Correspondence Courses
Specialized Training College General Courses
Miscellaneous Schools
Colleges of Technology
Universities
Junior Colleges
Specialized Training College Upper Secondary Courses
Schools for Special Needs Education
(Upper Div.) Part-time Courses
Upper Secondary Schools
Part-time Courses
Upper Sec. Dept.
Secondary Schools (Lower Div.)
Lower Secondary Schools
Lower Sec. Dept.
Compulsory Ed.
Elementary Schools
Element. Dept.
Kindergartens
Kinder. Dept.

(MEXT, 2012b, reproduction permitted)

Figure 2.1: The organisation of Japan's education system

Students work through grades one to six until, aged 12, they move on to junior high school, for a further three years, grades seven to nine. Upon completion at aged 15, they can opt out of formal education, but statistics from Japan's Ministry of Education (MEXT) show that since the early 1980s consistently around 96% of students have chosen to continue for

a further three years at senior high schools (MEXT, 2012a) for grades ten to twelve until aged 18. Of those who complete this level, consistently about half (53.5% in 2012) go on to higher education (MEXT, 2012a), either for two or three years at junior or technical colleges for an associate degree, or for four years at universities for a Bachelors degree. Thereafter, students can enter a two-year Masters degree program, then a doctoral degree program. At all levels of this framework, the system is divided between relatively well-funded (Editorial, 2014) and less-regulated private institutions and less well-funded but more tightly regulated public ones.

There has been long-standing and mounting pressure from within Japan's English Language Teaching (ELT) profession to reform schools' EFL education, to make it more communicative in order to equip students with the English language skills they will need to function in an increasingly interconnected world (MEXT, 2002; Matheny & Pattimore, 2004; Honna & Takeshita, 2005; Lokon, 2005; Nishino & Watanabe, 2008; Nishino, 2011; Robertson, 2015). In response, MEXT released its 'Strategic Plan' (2002) and 'Action Plan' (2003) "to cultivate "Japanese with English abilities"". Available in English, these plans clearly stated MEXT's commitment to measures which, among others, addressed two main areas of concern:

1. To improve students' motivation to study English by providing more opportunities for communicative TL use in EFL classes and by making senior high school and university entrance exams more communicative, thereby creating the positive backwash effect needed to encourage teachers to provide those opportunities.

2. To improve the quality of mandatory EFL teacher training and to offer more opportunities for further professional development.

Due to recent reforms, formal, mandatory EFL education now commences at fifth grade of elementary school, aged 11. According to the Course of Study guidelines set out for elementary schools by MEXT, the primary objective at this level is "[t]o form the foundation of pupils' communication abilities" (MEXT, 2011a, p. 1). Teachers should familiarise their students with the phonemes of English, teach basic words and phrases for situations and functions familiar to elementary school age children, develop basic speaking and listening skills and "[foster] a positive attitude toward communication" in English (MEXT, 2011a, pp. 1-2) so that students develop an interest in, and willingness to use English. A very strong emphasis is placed on ensuring that students enjoy their EFL lessons at this stage, presumably to promote and maintain interest in the language. Notably, focus on grammatical accuracy is not a requirement. Schools are given a high degree of autonomy regarding how these general aims are achieved, though to such an extent that some teachers feel that the directives lack clarity or meaningful guidance (Nishino, 2008, p. 40; Tahira, 2012, p. 6).

According to MEXT's Course of Study guidelines for junior high school EFL teachers, they should aim "[t]o develop students' basic communication abilities such as listening, speaking, reading and writing", expand students' understanding of how languages work and continue to encourage positive perceptions and enjoyment of foreign languages and cultures (MEXT, 2008, p. 1). The range of situations and functions within which students should be able to communicate in English is greatly expanded and, for the first time intonation, word stress, writing the alphabet, spelling, sentential and discourse level writing should be introduced. Specifications for target lexical and grammatical items are also provided. In line with the notion that "grammar underpins communication" (MEXT, 2008, p. 6) EFL lessons at this level become much more form-focussed and this is reflected in MEXT-approved EFL textbooks (McGroarty & Taguchi, 2005; Rosenkjar, 2009; Kobayakawa, 2011).

The Course of Study guidelines for senior high school EFL programs state that they should "develop students' communication abilities such as accurately understanding and appropriately conveying information, ideas etc." (MEXT, 2009a, p. 1) using all four language macro-skills and maintain positive perceptions of English as a living language. They also specify objectives and content for seven English subjects compulsory at this level: Basic English Communication, English Communication I, II and III, English Expression I and II and English Conversation. Through these subjects students should widen their knowledge of English vocabulary and grammar and further improve their ability to communicate in English within an expanded range of situations and functions across all four language macro-skills.

There are therefore five key points to be drawn from these various policy statements that are central to this study:

1. The Communicative Approach, usually in the form of Communicative Language Teaching (CLT), should be used in preference to more traditional approaches.

2. Communicative competence in *all four* language macro-skills (speaking, listening, reading and writing) should be developed to the requisite standard at junior and senior high schools.

3. Although there is no prescriptive statement on how the four macro-skills should be weighted, there should be a stronger emphasis on the development of oral skills than has previously been the case.

4. Use of the students' first language (L1) is to be limited and should not be considered the primary language of instruction.

5. The emphasis is on English as a living language, not merely an academic subject to be studied for entrance exams.

Colleges and universities have far greater license to design, implement and evaluate any EFL courses which they feel meet their students' current academic and/or future professional needs, in line with their curriculum goals. However, these institutions must strive to gain and retain accreditation from MEXT for their subject courses, degree programs, departments and faculties once every seven years. This accreditation denotes that the requisite level of quality assurance, faculty development and professionalism has been met, and is needed to attract a sustainable number of students at a time when that demographic in Japan is shrinking (Mulvey, 2010).

Prima facie, Japan's EFL education system offers considered objectives at all levels and a well-structured progression which should enable senior high school leavers to understand and convey spoken and written, non-technical information quite accurately and which should result in a fair level of proficiency in most aspects of communicative competence as defined by Canale & Swain (1980) and Canale (1983) in Chapter 3. However, the next section posits that many, if not most, who go through this public EFL education system fall far short of this level of proficiency upon graduating senior high school.

2.2 The problem of poor EFL proficiency

Two commonly recurring themes in Japan-based EFL literature for many years now seem to have been the poor quality of EFL education in Japan (see for example Kikuchi & Browne, 2009, p. 173) and the resultant low-level of communicative competence in English among Japanese students given the substantial time, financial and human resources expended (Editorial, 2015). This latter viewpoint had already become so entrenched in the mindset of many EFL professionals by the 1990s that Reedy (2000, p. 9) opened with "Bashing Japanese students over their lack of foreign language learning ability seems to be in vogue these days". Similarly Clark (2000, 2009) takes Japanese students' poor English proficiency as a given and thus as a point of departure for his

opinion pieces as to why "despite six years of middle and high school study, many Japanese are still unable to speak English well" (2009). This view is borne out by this researcher's 17 years of personal experience teaching EFL in Japan at the college, undergraduate and postgraduate levels and by personal communication with numerous ELT professionals during that period. It is also supported by Japanese and non-Japanese teachers and researchers (Butler & Iino, 2005, p. 26) and even by some students (Yuen, 1997; Mori, 2008).

Clark, an outspoken critic of Japan's EFL education system, ascribes the relatively poor proficiency to an excessive focus on inauthentic "textbook English", grammar-based instruction and a systemic pre-occupation with entrance examination preparation. He also blames many Japanese Teachers of English (JTEs) for their low English proficiency and "book-worn and often mistaken knowledge of obscure English grammar and vocabulary" (2000). He suggests that this results in an intense dislike for English among many high school students whose aural and oral English skills are so poor that it makes "[n]ormal conversation almost impossible" (Clark, 2009).

The students, however, may blame themselves. In a study of Japanese college students, Yuen (1997) found that they ascribed their poor English proficiency and lack of improvement to insufficient positivity, motivation, general interest and effort before, during and after the class. Similarly, Mori (2008) found that most of his undergraduate participants felt that their English had not improved or that it had even declined due to their insufficient effort and lack of interest, ability and preparation for classes. To prompt remedial measures, Murphey (2002) and Falout et al (2008) elicited advice from Japanese undergraduates on how high school JTEs could maintain students' interest in English by making classes more communicative and improving their teaching methods.

The perception of Japanese students' poor English communicative competence is also supported by hard data. As table 2.1 shows, Japan has placed consistently poorly in EFL world rankings in various English language tests.

Table 2.1: Japanese ranking on worldwide EFL tests

Test	Year	Rank (out of)	Source
Education First's English Proficiency Index (IBT)	2011	14 (44)	Education First, (2011, p. 5)
	2012	22 (54)	Education First, (2012, p. 4)
	2013	26 (60)	Education First, (2013, p. 6)
	2014	26 (63)	Education First, (2014, p. 8)
TOEFL (PBT)	1990-1991	132 (156)	Education Testing Service (1990, p. 27)
TOEFL (CBT)	1998-1999	133 (153)	Education Testing Service (1999, pp. 8-9)
TOEFL (PBT)		32 (39)	Education Testing Service (1999, pp. 15-16)
TOEFL (CBT)	2000-2001	144 (155)	Education Testing Service (2001, pp. 8-9)
TOEFL (PBT)		69 (84)	Education Testing Service (2001, pp. 15-16)
TOEFL (IBT)	2010	135 (163)	Education Testing Service (2011, pp. 10-11)
TOEFL (PBT)		34 (88)	Education Testing Service (2011, pp. 18-19)
TOEFL (IBT)	2013	135 (166)	Education Testing Service (2014, pp. 14-15)
IELTS (Academic)	2010	28 (40)	British Council (2011, p. 16)
IELTS (Academic)	2013	27 (40)	British Council (2013)
IELTS (General)		23 (39)	

Abbreviations:

IBT: Internet-Based Test   TOEFL: Test of English as a Foreign Language

PBT: Paper-Based Test   IELTS: International English Language Testing System

CBT: Computer-Based Test

However due to methodological issues, these league tables should be viewed and used with caution. In the case of Education First's (EF) English Proficiency Index (EPI) for example, they concede that the test's method of self-selected (i.e. voluntary) sampling skews the rankings towards those who have both internet access and an interest in taking the test (Education First, 2012, p. 38) and that the test is non-standardised because, although all examinees take the same test, it is completed online unsupervised.

Beyond methodological problems, Reedy (2000) argues that several statistical, logistical and linguistic factors further invalidate such national comparisons. For example, statistical comparison is invalid because each country's sample of test-takers represents a different proportion of their respective population.

Furthermore, Reedy (2000) points out that countries' EFL education systems start at different ages and provide disparate amounts of contact time and that some native languages (including Japanese) are linguistically more distant from English than others such as Swedish, Dutch and Danish, making English more difficult to master (p. 10). This last point was confirmed by Chiswick & Miller (2005) who found that of the 43 languages they compared with English in their analysis, Japanese was the most distant.

However, while it is certainly not valid to use such test scores to show that one national group is innately better or worse at learning English than another, when Japanese examinees' test scores are taken in isolation, the consistently low mean scores are strongly suggestive of problems within Japan's EFL education system which are resulting in lower proficiency levels.

Finally, MEXT itself concedes that Japanese people's English is quite poor and insufficient for communication in an increasingly interconnected global society (MEXT, 2002, 2003). The following section briefly examines the underlying systemic, institutional, pedagogic, socio-cultural, historical, economic and political reasons for this.

2.3 The problem's underlying causes

Given MEXT's acknowledgement of the importance of English as a *lingua franca* for international business, trade, industry, science and technology (MEXT, 2002, 2003), and the substantial resources it commits annually to host the Japan Exchange Teaching (JET) Program ($400 million or approximately £24 million in 2000, according to McConnell, 2000), it seems likely that MEXT is sincere in its longstanding commitment and directives to improve EFL education and thus Japanese people's English communicative competence (MEXT, 2002, 2003, 2008, 2009a, 2009b, 2011a, 2011b). Why then does the problem of poor English communicative competence persist?

A review of related literature reveals a complex interplay of mutually-reinforcing systemic, institutional, pedagogic, socio-cultural, economic and political factors coalescing to cause the serious disconnect between MEXT's directives and actual classroom practice in many elementary, junior and senior high schools (Browne & Wada, 1998; Gorsuch, 2000, 2001; Sato, 2002; Wada, 2002; Yoshida, 2003; Taguchi, 2005; Butler & Iino, 2005; Gottlieb, 2005; McKenzie, 2008; Nishino & Watanabe, 2008; Nishino, 2008, 2011; Kikuchi & Browne, 2009). As Stewart (2009, p. 10) puts it:

> The focus of current state policy in foreign language teaching in Japan is on *communicative English*, but evidence suggests that many teachers value content coverage and entrance test preparation above adhering to central policy directives.

Furthermore, though there are many contributing factors, a review of the literature highlights four principal causes for this disconnect: the excessive focus on entrance

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examination preparation mentioned by Stewart (2009), textbooks' linguistic contents, their associated methodologies and inadequate teacher training.

In Japan, great socio-cultural importance has long been placed upon a university education as a means of upward mobility. Many students work extremely hard to enter the best university they can, as this is perceived to enhance employment opportunities after graduation. The key to attaining this goal is to score high marks on university entrance exams. To this end, securing a place at good elementary, junior and senior high schools is seen as crucial. These, along with copious hours of after-school study at *juku* (cram schools) prepare students for the all-important, one-shot, high-stakes university entrance examinations. Thus, "for parents and students alike, getting good grades on entrance exams is important above all else" (Kikuchi & Browne, 2009, p. 176).

It is unsurprising therefore that junior and senior high school EFL teachers feel severe pressure from institutions, colleagues, parents and students to divert a great deal of contact time away from activities which could develop communicative competence in English, to focus instead on preparing for these entrance exams (Gorsuch, 2000; Yoshida, 2003; Sakui, 2004; Gottlieb, 2005; Lokon, 2005; Butler & Iino, 2005; McKenzie, 2008; Underwood, 2012a). Despite efforts by many high school JTEs to include communicative components in their EFL programs and lessons in an attempt to realise MEXT's directives, Taguchi (2005, p. 4) highlights the continuing "centrality" of these exams in their content choices. As a result, Gorsuch (2001, p. 2) notes that this demand for entrance exam preparation has created "an educational culture which likely precludes teachers' use of communicative activities".

This skew towards entrance exam preparation impairs students' English communicative competence even beyond matriculation. The acute stress and tedium that "examination hell" (Kamiya, 2009) induces is so extreme that it "traumatize[s]" students (Yuen, 1997, p.

46) to the point where they often develop an intense dislike of, and profound "apathy" towards further learning of English as an academic subject or living language (McVeigh, 2001). It seems highly likely that this causes problems further down the line for post-secondary EFL teachers in terms of motivating their students to study and use English.

Related to the very real need for entrance exam preparation, Kobayashi (2000, p. 23) notes that:

> English entrance examinations tend to focus on reading, writing and grammar at the expense of oral-aural skills. As a result, the specific term employed in Japanese to describe the English tested in these examinations, i.e. *juken eigo*, implies that this is a particular type of English and thus different from 'real English'.

Butler & Iino (2005, p. 28) similarly observed that it is *juken eigo* (受験英語), literally 'exam English', rather than communicative language use, that has become many students' primary focus, at the expense of their English communicative competence.

Regarding textbooks, Ogura (2008) notes that, "[a]s Japan requires all schools to use government-approved textbooks, whether or not the textbooks include communicative language tasks will have a strong influence on student development". For tasks to be considered authentically communicative there must be a contextualised communicative need which focuses on meaning rather than grammatical accuracy, i.e. a purposeful requirement to impart information to others (Richard & Rodgers, 1986, pp. 67-68, citing Finocchiaro & Brumfit, 1983, pp. 91-93). However, analyses of Japan's most commonly used junior and senior high school EFL textbooks suggest that this communicative need is generally absent with respect to both spoken and written discourse (Ogura, 2008; Kobayakawa, 2011 respectively).

There is also the question of whether these school EFL textbooks provide sufficient vocabulary coverage. Kitao & Takana (2009) showed that both the vocabulary range and

the number of compulsory words which students must learn had decreased between 1952 and 2002. This decrease may itself be in response to a 50% reduction in the number of contact hours assigned for EFL lessons over the last century (Hosoki, 2011). There is also the issue of whether these texts allow students to 'meet' and practice even this reduced list of vocabulary often enough to place them in long-term memory. Waring & Takaki (2003) found that it took at least eight meetings for any learning to occur, while Waring (2009) shows that to meet even only the 1,000 most frequently occurring English words only ten times, students would have to read 85,329 words, making school EFL textbooks prohibitively long. As will be seen later in section 8.2, this insufficient exposure to even basic lexical items may partly explain why the participants in this study lacked confidence in their English vocabulary.

Implicit within most textbook activities is the methodology intended by the author. EFL teachers in Japan can find it difficult to fuse the heavily lexico-grammatical content and activities inherent in MEXT-approved textbooks with the principles of CLT (Sato & Kleinsasser, 2004; Underwood, 2012b), or as Sakui (2004) puts it, how to simultaneously "[wear] two pairs of shoes". Under social, institutional and political pressure to adhere to MEXT's prescribed syllabi, content, materials and activities, teachers often forego CLT and revert to the methodology inherent within the textbook their institution has selected (Sato & Kleinsasser, 2004; Goh et al, 2005) which in the Japanese public school context is generally grammar translation (Underwood, 2012a, p. 123) known as *yakudoku* (翻訳読書), literally 'translation reading'. Nishino (2011, p. 131) notes that "CLT in Japan contrasts sharply with [this] traditional and arguably still dominant *yakudoku* method which involves decontextualized grammar instruction and word-by-word translation of written English into Japanese". There is then significant tension between the two main objectives which teachers are expected to meet: applying CLT on the one hand to realise

MEXT's policy directives whilst simultaneously preparing students for atomistic, grammar-based entrance exams on the other (Sakui, 2004; Nishino, 2008, 2011).

This pairing of 'exam English' textbook materials and 'translation reading' methodology provides a solid system for preparing students for entrance exams consisting primarily of reading, translation and grammar tasks (Stewart, 2009, p. 19) and perhaps for developing lexico-grammatical competence, but it does very little to develop discourse, strategic or socio-linguistic competencies as envisioned by Canale & Swain (1980) and Canale (1983) as described in section 3.1.5.

The fourth major factor is the lack of suitable theoretical and practical pre-service EFL teacher training and in-service professional development. MEXT's 'Strategic Plan' (2002), 'Action Plan' (2003) and Courses of Study (2008, 2009a, 2009b, 2011a) require teachers to apply the principles of CLT but to date MEXT has provided little in the way of meaningful *practical* training to this end, leading Okuno (2007, p. 151) to comment that many JTEs at all school levels lack the requisite English proficiency, qualifications and CLT skills to teach English knowledgeably and effectively. For example, several researchers have concluded that the public elementary school teachers in their studies lacked sufficient familiarity with and confidence in using the CLT approach to implement it properly (Fennelly & Luxton, 2011, p. 21; Nishino, 2011, p. 132; Tahira, 2012, pp. 6-7). The training programmes for junior and senior high school EFL teachers are more established due to English's long-standing place in the curricular at those levels but even here the *practical* training provided for aspiring English teachers during their undergraduate studies, where most of the training and certification occurs, is minimal (Browne & Wada, 1998, p. 101).

One anecdotal example is of an undergraduate student that this researcher taught, who upon returning to university after her two-week English teacher training practice at a

junior high school, reported that she had learned nothing useful from her mentor teacher. The 'trainer' was an EFL teacher but not a qualified teacher trainer and had often tasked the trainee with menial administrative duties such as folding letters and putting them into envelopes rather than using the time to study pedagogy, prepare lessons and materials or practice teaching.

In short, as Gorsuch (2001, p. 5) writes, "[o]n the face of it, it does not seem likely that Japanese in-service programs can produce teachers who have the tools to analyze and change their own teaching". When considered in conjunction with grammar-based textbooks and grammar translation methodology geared towards preparing students for their all-important entrance examinations, it is unsurprising that Japan's EFL education system is producing students with such low levels of English communicative competence, even after eight years of formal EFL study.

2.4 Justification for the study

Despite MEXT's Action Plans and updated Courses of Study, Tahira (2012, p. 5) notes that "the implementation of CLT appears to be happening at a sluggish pace". This is because, as Lincicome (1993, p. 124) highlights and Gorsuch (2000, p. 678) explains, Japan's EFL education system is highly resistant to change, with "career educators…mostly concerned about maintaining the status quo". Little seems to have changed since then, chiefly because MEXT's reforms do not address the social, political and institutional beliefs and structures which perpetuate the four primary underlying causes discussed in the previous section. Indeed, referring to those causes, Clark (2009) writes that "the bureaucrats plan to solve this problem by giving us more of what caused [it]".

It seems then that for the foreseeable future Japan's current high school EFL education system will remain intact, with the result that many students matriculating to colleges and universities will have relatively poor productive EFL skills. This leaves post-secondary EFL educators with the significant challenge of remotivating and educating college students and undergraduates through pedagogic approaches which raise their productive EFL skills to levels where communication in general and technical areas becomes possible and to do so in only two to four years and within pre-existing resource constraints.

Applying as it does the principles of the Communicative Approach (see section 3.1.4) PBLL may work to meet this need. However, while there is a growing and increasingly cogent body of research, reviewed in the following chapter, to show that PBLL has a wide range of language and content learning, cognitive, social and affective benefits (Stoller, 2006, p. 25), little empirical research has been conducted into the specific perceived or actual language learning outcomes associated with PBLL, either in terms of language skills or knowledge. This doctoral thesis therefore seeks to contribute to the field by examining whether participants report perceived EFL learning gains through PBLL and whether they can support such statements with concrete examples. If such outcomes were reported, college and university level EFL educators might consider incorporating PBLL into their courses to meet students' learning needs.

In this chapter I have outlined Japan's general education and EFL education systems and made the case that the latter is failing to equip students with functional levels of English communicative competence due to the various causal factors outlined. It is against this educational backdrop that the current study was conducted to examine whether, and to what extent, PBLL might aid college students in developing their English proficiency. The thesis now moves on in Chapter 3 to review literature related specifically to Project-Based Language Learning.

Chapter 3: Project-Based Language Learning

Given that the shortcomings of Japan's EFL education system outlined in Chapter 2 seem set to continue at the school level for the foreseeable future, the use of more communicative pedagogic approaches such as PBLL at colleges and universities might go some way to improving students' English proficiency, particularly in productive skills. Therefore, in this chapter I present a review of PBLL-related literature so that the reader can make an informed decision as to whether the approach is suitable for their own educational setting.

Section 3.1 presents the philosophical and theoretical bases for PBLL as a communicative approach that might work towards developing students' EFL proficiency. Particular reference is made to the approach's underlying educational philosophies of constructivism and holism and to Second Language Acquisition (SLA) theory, the Communicative Approach and the concept of 'communicative competence' (Canale & Swain, 1980; Canale, 1983). Section 3.2 outlines the development of active learning that has led to PBLL. It also offers a definition and conception of practice of PBLL and covers the practicalities of applying the approach. A historical overview of PBLL literature is provided in section 3.3, while section 3.4 reviews various studies reporting TL learning outcomes through the approach. Section 3.5 then outlines the practical difficulties associated with PBLL. These sections serve both to put this study in its literary and academic context and to show how PBLL might develop various aspects of Japanese students' EFL communicative competence. The chapter closes in section 3.6 by responding to calls for more empirical research into PBLL's language learning outcomes by positing the research question with which this study is concerned.

3.1 Philosophical and theoretical bases for PBLL

This section justifies my choice of PBLL as the focus of this investigation by examining its philosophical, theoretical and pedagogic bases, with particular reference to constructivism, holism, SLA theory, the Communicative Approach and communicative competence.

3.1.1 Constructivism

Constructivism is a theoretical position which seeks to explain how we build our understanding of the world around us. Richards (2003, p. 38) writes that "[t]he fundamental tenet of this position is that reality is socially constructed". In other words we do not live or learn in isolation, completely disconnected from the people or events around us, or from our previous experiences and interactions with them. We build the sum total of our knowledge and understanding of the world, our 'reality', through an accumulation of those experiences and interactions over time. From those come many of our individual differences, beliefs, values, preferences, anxieties and what we believe we 'know', all of which influence our receptivity to learn (Allen, 2004, p. 233). Our individual view of reality can positively or adversely affect what, how and even whether we will want to learn.

The relevance of constructivism to this study is two-fold. It is firstly a way of understanding students' perceptions and preferences regarding EFL education. Secondly, it forms a philosophical basis for pedagogic approaches that aim to develop the higher levels of TL proficiency which many Japanese students seem to need. The various forms of active learning shown in section 3.2.1, which include PBLL, are expressions of this educational philosophy.

Newly matriculated Japanese undergraduates are not completely devoid of foreign language learning experiences. Section 2.3 showed that they have generally experienced predominantly atomistic methods of English teaching, learning and testing at school. Constructivist theory posits that those experiences feed into their belief systems and expectations of what higher education EFL teaching and learning should be. They may perceive EFL learning predominantly of grammar and vocabulary through atomistic pedagogies as 'real' or effective (albeit uninspiring) EFL learning (Shimizu, 1995). The problem is that to develop their EFL language skills, students will need to participate in approaches which encourage much greater levels of TL use in communicative contexts. Some students might view these alternative, more communicative, constructivist and holistic approaches to EFL teaching and learning with scepticism because they do not overtly work towards their preferred EFL knowledge-centred learning goals (Eyring, 1989; Beckett, 1999). Beckett & Slater (2005), Beckett (2006) and Kobayashi (2006) therefore point out that such students would need to become socialised, i.e. trained, to new ways of learning and using the TL.

Constructivism also forms a philosophical basis of several more progressive pedagogic approaches, including PBLL, which see students as "fully functioning persons" who can "learn how to learn" among a "community of learners" for personal "empowerment" (Rogers, 1951, cited by Brown, 2000, p. 91), with new learning being built upon pre-existing knowledge (Kaufman, 1997). These characteristics contrast with the view of students as blank slates upon which to imprint knowledge, which underpins the atomistic approach to EFL education which section 2.3 shows forms the basis of many Japanese students' school EFL experiences. Winitzky & Kauchak (1997, p. 417, cited by Allen, 2004, p. 233) point out that:

Constructivist teaching typically involves more student-centered, active learning experiences, more student-student and student-teacher interactions, and more work with concrete materials and in solving realistic problems.

As a constructivist approach, PBLL might therefore seem a rational pedagogic choice where the aim is to develop Japanese EFL students' TL communicative competence.

3.1.2 Holism

Another philosophical basis for PBLL is holism. In general terms it states that to understand the interplay between various parts of a system, they need to be seen *in situ* as "a contextually relevant whole" (Shuy, 1981, p. 101). With respect to language learning, this means the interplay not only between various aspects of language knowledge (grammar, vocabulary, spelling, pronunciation, etc.) but also between that knowledge and language macro- and micro-skills, as well as between the four communicative competencies (lexico-grammatical, strategic, sociolinguistic and discourse) proposed by Canale & Swain (1980) and Canale (1983), discussed in section 3.1.5. A holistic view of language therefore sees it as an inseparable whole.

This study applies the holistic perspective at two levels: language and pedagogy. Firstly, as described above, language is seen as an indivisible system for communication. Children generally learn their L1 very well without recourse to grammatical or lexical sequencing. As Richard & Rodgers (1986, pp. 4-5) point out, grammar translation, which many Japanese experience in school EFL classes, is artificial and not particularly effective as an approach to language learning. While such atomistic approaches may have had some success in teaching isolated grammatical forms and lexical items, they do not teach language in ways which demonstrate to the learner the complex interplay of language knowledge, skills and competencies listed above or develop communicative competence (Brown, 1994, p. 17). For that, a language must be treated holistically, as an integrated system.

Secondly, PBLL is a holistic pedagogic approach. As such, and in common with holistic EFL education in general, it is characterised by two distinguishing features. Firstly, it is goal-oriented. Within FL learning this goal is communication of meaning, with the wider, longer-term goal of improving general communicative competence. Next, it is learning through experience, or 'learning by doing'. Thus holistic learning is process-oriented as well as product-oriented. In FL classrooms this means *using* the TL to achieve authentic, communicative goals rather than simply learning about its phonological, lexical or grammatical makeup (Brazil, 1992). How these characteristics are realised within a project is discussed in more detail in section 3.2.

It is clear that constructivism and holism are similar in many ways, and indeed Shuy (1981, p. 103) equates the two. However, with respect to this study at least, I make a subtle distinction between them. The former is a view of the language learner, while the latter is a view of language itself.

3.1.3 Second Language Acquisition

For constructivism and holism to contribute to a theoretical framework in support of PBLL, it needs to be shown that the approach incorporates those philosophical perspectives as part of its underlying educational philosophy. This can be done by demonstrating that the PBLL approach conforms very closely to Mohan's (1986) view that we use language to understand our surroundings and to function within them while simultaneously also developing our understanding of the language itself. As he writes:

> Language is normally a medium of learning about the world. A child communicating with a mother is learning about the world, and learns language in the process of learning about the world. Both in research and in classroom practice it makes no sense to disconnect language learning from learning about the world. (p. 3)

One could very easily substitute the words 'child' and 'mother' with the term 'foreign language learner' to create a fair description of what happens during PBLL project-work

interactions. In so doing, it becomes clear that PBLL takes the same constructivist view of the learner and holistic view of a TL as Mohan does of a child learning his/her L1.

As PBLL has become more prominent in EFL and English as a Second Language (ESL) classrooms, practitioners have recognised the need for a stronger theoretical defence of the approach which draws more heavily from SLA theory and related research. Stoller (2006, p. 20), for example, points out that anecdotal, descriptive reports of project-work, and the often subjective statements they contain in support of language learning benefits attained, do not constitute a viable theoretical framework in support of PBLL. Eslava & Lawson (1979), Fried-Booth (1982), Ferragatti & Carminati (1984), Carter & Thomas (1986) and Vincent (1990) would be cases in point. In Stoller's view, to construct a strong theoretical defence of PBLL, it is necessary to "consult research in the broader fields of L2 and FL teaching/research that is inextricably linked to the many positive claims made by project work proponents" (2006, p. 20). Van Lier (2006, p. xv) also points out that such a theoretical defence is clearly necessary in order to establish PBLL's credibility with those who make policy or curriculum decisions.

One concept in SLA that appears to be particularly relevant to PBLL is the idea of communicative competence, as exemplified in particular by the work of Canale & Swain (1980) and Canale (1983), which has particularly influenced language teaching in the form of the Communicative Approach. The following section therefore discusses the general theoretical principles of the Communicative Approach, upon which PBLL is founded, before looking in more detail at communicative competence in section 3.1.5.

3.1.4 The Communicative Approach

In language teaching, a pedagogic approach is a set of assumptions based upon a theory of what language is, how it can be learned, and therefore by extension how it can be taught.

Since PBLL is based upon the assumptions implicit in the communicative approach, it is useful to set those out here.

At its core, this theoretical position states that learning a language and learning to use that language can be achieved by tapping into the same innate capacity for language acquisition by which learners acquire their L1, what Chomsky (1965) calls the 'Language Acquisition Device' (LAD). According to Canale & Swain (1980), this can be done by creating situations or contexts in which language learners need to communicate information to others, either in spoken or written form. This contextualised communicative need makes TL use meaning- and goal-oriented and purposeful beyond merely practicing it for its own sake. The learner's short-term goal is to convey meaning to peers, the teacher, the reader etc., while the teacher's longer-term goal is to develop the learner's TL communicative competence, as set out by Canale & Swain (1980) and Canale (1983) and outlined in the following section.

Emphasising as it does the co-constructed nature of meaning, it can be said that the Communicative Approach is constructivist in nature. It is also a holistic approach because it does not seek to isolate parts of the TL, for example grammatical functions, but instead views the TL as an integrated system for communication.

How this theory is realised in language classrooms is a matter of pedagogic choice. Richards & Rodgers (1986) and Larsen-Freeman (2000) show that CLT is one option while Willis (1996) shows that the Task-Based Language Learning (TBLL) cycle is another. Similarly, PBLL attempts to meet all of the above requirements of the Communicative Approach, consistent with a holistic view of language. They all require a shift in centrality in the classroom away from the teacher towards the student and all view communicative competence as attainable through meaning-focussed use of the TL. Table 3.1 in section 3.2.2 offers a more detailed comparison of these approaches, while sections

3.3 and 3.4 review PBLL-related literature in more detail. However, central to all three approaches is the concept of communicative competence, discussed in the following section.

3.1.5 Communicative competence

The idea of communicative competence was first posited by Hymes (1971, 1972, 1974), who saw it as a way to conceptualise how language is used to perform specific functions within any given speech (later discourse) community.

The definition offered by Coulthard (1985, p. 33) was similarly focussed on spoken discourse: "the speaker's ability to produce appropriate utterances, not grammatical sentences". While this incorporated the sociolinguistic element of language "appropriate" to a given setting, it overlooked both the written word as an equally valid form of communicative language use and the receptive language skills needed to interpret spoken or written discourse. Therefore a more inclusive definition of communicative competence, incorporating all four language macro-skills might be: The ability to produce appropriate spoken and/or written language and to comprehend the intended meaning of others.

Taking a different approach, one independent of language macro-skills, Hymes' interplay of language form and function was taken up, expanded and refined by Canale & Swain (1980), who identified three areas of competence:

1. *Linguistic competence*: the ability to use the language's lexical, grammatical, orthographic, punctuation and phonological systems to convey the intended meaning.
2. *Sociolinguistic competence*: the facility to select language appropriate to the prevailing social setting.
3. *Strategic competence*: the capacity to repair the communicative process and maintain effective communication.

The first two incorporate Hymes' model of communicative competence which specified 'linguistic (phonological, lexical, grammatical and semantic) competence' and 'sociolinguistic competence'. However, this still viewed language as sentential, perhaps due to the long-standing preoccupation at that time with sentential level grammar. Therefore to these Canale (1983) added a fourth:

4. *Discourse competence*: the ability to use language coherently and cohesively within extended discourse.

Swain (1985) argued that Krashen's (1985) comprehensible input hypothesis was insufficient to develop this view of communicative competence because, in addition to comprehensible input, FL learners also require opportunities for comprehensible output. Its proponents suggest that PBLL represents an elegant, efficient and effective approach to language learning as it offers opportunities for both comprehensible input *and* comprehensible output via tasks that require contextualised, purposeful, meaning-oriented, i.e. communicative interaction in the TL (Beckett, 2002). Stoller (1997, cited in Beckett, 2002, p, 106) also views PBLL as efficient for FL instruction because it creates a connection between TL learning and its use and provides chances for students to develop their communicative competence by interacting and communicating with each other.

Canale & Swain (1980) and Canale (1983) argue instead that with well-rounded communicative competence in all four domains, learners should be able produce extended discourse to communicate effectively in a range of social settings, at least in general, non-technical contexts.

To achieve this general communicative competence in a foreign language, it seems necessary for students to:

1. focus on both function *and* form to fulfil communicative needs (linguistic competence),

whilst

2. developing and applying communication techniques and repair strategies to maintain effective communication (strategic competence),

3. within a variety of social contexts, albeit contrived in the classroom (sociolinguistic competence),

4. and through extended spoken and written discourse (discourse competence).

While alternative models of communicative competence certainly do exist, for example Bachman's (1990, pp. 84-104), these might be considered largely re-organisations of Canale & Swain's (1980) and Canale's (1983) work. Since their four-part model of communicative competence is generally accepted in the literature, it is the one that I will use here. In the following section I review literature to establish how PBLL works towards developing communicative competence.

3.2 Project-Based Language Learning

Section 3.1 established that PBLL has considered, coherent and cohesive philosophical and theoretical underpinnings. Here I move on to review literature on learning through projects in general education, then offer a functional definition for PBLL, compare it to other approaches and present a conception of practice to show how it develops TL proficiency. I will then outline various types of PBLL projects and summarise the practicalities of conceiving, designing and implementing them to show what is involved in using the approach in the classroom.

3.2.1 Project-Based Learning

Since PBLL is derived from PBL, it seems helpful to provide a brief overview of the application of project-work within the context of general education.

As a mainstream practice in general education, project-work is well-established. It was Snedden (1977) who first proposed the approach as an efficient form of instruction in the field of agricultural science (Alberty, 1927; Adderley et al, 1975; Holt, 1994). In their review of Snedden's and Dewey's "battle of words" over vocational course design, Roberts & Ball (2009, pp. 81-82) describe how Snedden argued in favour of content-based courses in which content was restricted to that set of knowledge and skills specifically relevant to each course of study, very much as in vocational apprenticeships. They contrast this with Dewey's vision of a more holistic, integrated form of course design (Dewey & Dewey, 1915) which developed not only students' vocational and academic skills but also their "transferable life skills" (p. 82) such as cognitive and social skills. These additional skills and the wider issue of transferability could be considered core elements of modern PBL and PBLL. That it is Dewey who seems to be far more commonly cited in ESL/EFL literature as the 'father' of problem-based education (van Lier, 2006, p. xi) suggests that, with respect to language instruction at least, Dewey's 'problem method' vision prevailed. Thereafter, Kilpatrick, Dewey's protégé further restated his mentor's work to postulate the 'project method' (1918).

At their core, both the problem and project methods necessitate purposeful action by the student as the driving force and principle mechanism for learning. Mohan (1986) states that: "the concept of activity is so central to education that education can be defined in terms of activities". This purposeful action, or what van Lier (2006, p. xiv) calls "human agency", can take various forms including planning, investigation, data collection and analysis, critical thinking, discussion, problem-solving, decision-making and reporting. With Dewey's problem method, this last stage would require students to present their solution to the stated problem, but with Kilpatrick's project method a more diverse range of output or end products are acceptable, for example guides (Fried-Booth, 1982; Hatanaka, 2008), storybooks (Matsumoto, 2002; Nakayama, 2001), newsletters (Carlton,

2004), informative presentations (Renjel, 2006) and television commercials (Cunningham, 2011).

Since Dewey's and Kilpatrick's initial incarnations, project-work has taken various forms or "configurations" (Stoller, 2006, p. 21) both within mainstream and ESL/EFL education, the more common of which are presented below:

- problem-posing: Freire (1970);

- problem-based learning: Savoie & Hughes (1994), Barell (2007);

- investigative research: Kenny (1993);

- investigative learning: Fried-Booth (1982);

- exploratory learning: Legutke (1984, 1985);

- negotiated language learning: Legutke & Thomas (1991), Eyring (2001);

- cooperative learning: McGuire, Thornton & Kluge (1997), Kimura (2009), Fushino (2010);

- collaborative learning: Davey (2001);

- action-based learning: Waddill (2006);

- experiential learning: Carter & Thomas (1986), Legutke & Thomas (1991), Eyring (2001);

- holistic learning: Shuy (1981), Legutke & Thomas (1991), Blanton (1992);

- project approach: Diffily (1996);

- project-work: Haines (1989), Ribé & Vidal (1993), Henry (1994), Fried-Booth (2002), Hardy-Gould (2003);

- project-oriented approach: Carter & Thomas (1986);

- project-based learning: Peterson & Myer (1995), Wood & Head (2004);

- project-based language instruction: Moss & Van Duzer (1998);

- project-based language learning: Kemaloglu (2010), Simpson (2011).

The nomenclature suggests how they differ in their focus of approach. Furthermore, as Stoller (2006, p. 21) notes, these names also highlight the various characteristics often associated with project-work: learning through experience, negotiation and collaboration with others, investigation and problem-solving. These are all forms of action or human agency. However, despite certain subtle differences, they share a common educational philosophy and van Lier (2006, p. xiii) sees these as all "flow[ing] from the same ideological and pedagogical well" in that they all developed from the humanistic education movement advocated by Dewey and others in the early part of the 20th century (Legutke & Thomas, 1991, p. 47). At its core is 'learning by doing', the assumption being that to understand and consolidate knowledge and to develop skills, students need to apply them in practice and to learn from their mistakes. However, beyond positive TL learning outcomes, PBLL has also been associated with improved social and cognitive skills and enhanced affective factors considered important in foreign language learning (Stoller, 2006, p. 25).

Four conclusions can be drawn from the above list of variations. First, that in one guise or another, project-work is a long-standing, mainstream approach to teaching and learning (van Lier, 2006, p. xii). Second, that it is self-evidently highly adaptable to a diverse range of intended learning outcomes and contexts. Third, that its longevity "testifies to the value teachers have found in [project-work]" (Fried-Booth, 2002, p. 3). Finally, PBLL balances the needs for both product- and process-oriented learning (Legutke & Thomas, 1991, p. 160).

3.2.2 A definition and conception of practice for PBLL

As Henry (1994, p. 12) and Stoller (2006, p. 23) point out, there is no universally agreed definition for what constitutes a 'project', so defining a PBLL project becomes problematic. The term 'project-work', and therefore PBLL, is open to personal interpretation and is manifested in many forms. However, by collating the characteristic features of project-work that have been highlighted in the PBLL literature, it is possible to construct a working definition through consensus. The full analysis is presented in appendix 1, but for the purposes of this study, PBLL project-work is loosely defined by the following characteristics. It is:

- a student-centred approach adhering to the tenets of the Communicative Approach,

- a series of thematically linked tasks,

- within a clearly understood situational context,

- completed individually and/or collaboratively in small groups,

- with support from the teacher as needed,

- with students using the TL (to the extent possible),

- over an extended period of time,

- to produce a tangible piece of work in the TL,

- through authentic, meaningful, purposeful, contextualised and self-directed TL use,

- with the intention of developing TL knowledge and skills.

PBLL can be compared with CLT, TBLL and grammar translation which, as Chapter 2 explained, seems to be the dominant approach to EFL in Japanese schools. Table 3.1 below summarises, amalgamates and expands upon Richards & Rodgers (1986), Larsen-Freeman (2000) and Stoller (2006, p. 25) to compare these approaches' key features to highlight PBLL's distinguishing features and to help understand its conception of practice.

Table 3.1: A comparison of PBLL with other pedagogic approaches

Approach	Grammar translation	CLT	TBLL	PBLL
Purpose or objective	To be able to read TL texts. TL communicative competence is not a goal.	The development of TL communicative competence		
View of language / language learning	Atomistic / Deductive	Holistic / Inductive Applies the principles of the Communicative Approach.		
Assumptions about the learner	The learner has no prior language learning experience that might assist in TL development. The learner's Language Acquisition Device (LAD) is not recognised.	Has prior language learning experience and a viable LAD that can assist in TL development.		As for CLT and TBLL plus sufficient maturity to direct their own studies and to work autonomously in groups, even beyond the classroom and over extended time periods.
Centrality	Entirely teacher-centred	Jointly teacher- and student-centred		Initially teacher-centred, moving rapidly to student-directed.
Focus on…	forms, i.e. grammatical accuracy at the sentential level	forms and form, i.e. meaning and communication (Long, 1988, 1991) and suprasentential and discourse level coherence and cohesion.		greater emphasis on form for meaning and communication.

	'Traditional', i.e. to:	'Progressive', i.e. to:	As for CLT, plus apply the various stages of the TBLL cycle to highlight particular TL features.	As for CLT, plus:
Teacher's roles	• call upon students to answer questions. • exemplify and explain the TL. • clarify meaning. • check comprehension.	• create contextualised and purposeful communicative needs as the bases for learners' TL use. • explain outcome-specific tasks. • monitor, clarify and advise during communicative practice. • give feedback on how well students have completed the task.	As for CLT, plus apply the various stages of the TBLL cycle to highlight particular TL features.	• facilitator of project-related resources.
Students' roles	• Memorise grammatical rules and lexis through rote learning, then apply them to translate texts between L1 and TL. • Answer the teacher's questions.	• Participate proactively as communicators. • Give immediate feedback on comprehension to negotiate meaning. • Express personal ideas and views. • Be responsible for their learning.	• Students work to notice new linguistic items.	• Self-directed learning • Team member/collaborator • Knowledge manager/leader (Murchu, 2005)
Grouping	Predominantly individual	Pairs, threes, small groups and whole class		At times individual, pairs, three and small groups, depending upon the task at hand.
Initiation / Interactions	Teacher-initiated. Teacher-to-student interactions very strongly dominate.	Teacher- and student-initiated teacher-student-teacher and student-student interactions.		Student-initiated student-student interactions strongly dominate during the lesson and are exclusive after the lesson.

Personalisable	Not personalisable L1 and TL have a one-to-one translation equivalent	Personalisable Students give personal ideas and views. Several forms can be used to express any given function or idea.	
Errors	Not accepted	Accepted as part of the TL development process but noted for later remedial work.	
Materials	Literary sources were seen as superior, but more recently, fabricated texts are used.	Materials containing authentic language use are preferred.	As for CLT and TBLL, plus uses project themes of relevance and interest to the learners.
Role of L1 and TL	L1 is used heavily by teacher and students for instruction to learn the TL as an object of study.	TL use is much more fore-grounded but limited L1 use may be accepted.	TL use is technically prohibited but in reality is often necessary
Advantages	May develop students' TL reading and writing skills.	May develop all aspects of communicative competence to varying degrees, plus social skills.	May develop all aspects of communicative competence to varying degrees, plus social and cognitive skills	As for TBL plus enhanced: • authenticity of TL use, • opportunities for TL use, especially beyond the lesson, • content knowledge, • self-initiation, • learner autonomy and • sense of responsibility.
Disadvantages	Does not develop TL speaking, listening or pronunciation.	Makes greater pedagogic and social demands of the teacher. Might be rejected by learners expecting a more traditional approach.	

PBLL draws upon several psycholinguistic theories. The first is Long's (1980) 'Oral Interaction Hypothesis' whereby oral interaction aids language acquisition in various ways. It provides learners with opportunities to receive the comprehensible input necessary for language development (Krashen, 1985). It also provides learners with chances for comprehensible output and hypothesis-testing whereby they can check the accuracy of their understanding of the TL and modify it as needed (Krashen, 1998). Clarification requests and comprehension checks assist in this process (Chaudron, 1988). PBLL also draws on Chomsky's (1965) innate Language Acquisition Device which enables very young children to learn, modify and reproduce language.

In common with CLT and TBLL, PBLL sets up situations and tasks whereby learners can be exposed to the teacher's and peers' TL input and can produce their own TL output. Furthermore, in contrast to grammar translation, this interaction is meaningful, contextualized, purposeful and, preferably, related both to the real world and students' interests, so it should be inherently more interesting and motivating. However, PBLL differs in that it places far more responsibility on students to direct, and take responsibility for their own work. That PBLL project-work often requires students to work within and beyond the classroom and over an extended period of time means that there are many more interactions in the TL and therefore more opportunities for comprehensible input and output, as noted by Stoller (2006, p. 25) as well as for TL hypothesis-testing. This is assumed to assist in accelerated TL acquisition and skills development. These language learning outcomes are seen as arising from the centrality of the communicative needs that must be met to complete the project's tasks through which the project comes to completion, rather than due to a focus on the product (Legutke & Thomas, 1991). Fried-Booth (2002, p. 6) refers to this as "[t]he route to the end product".

The following section examines some of the project typologies advanced in the literature, which serves to demonstrate the approach's versatility.

3.2.3 Types of projects

Various project typologies exist within the literature, each based upon the different features the projects involve. Haines (1989) for example sets out four types:

1. *Information and research projects*, which require students to use existing research information to produce the output. One example is Renjel (2006) where students researched a foreign country in the TL to produce a presentation.

2. *Survey projects*, in which students gather and analyse original data via appropriate methods and report their results, for example Fried-Booth (1982) and Fushino (2010).

3. *Production projects*, whereby students develop output in a wide range of paper or electronic media such as Davey (2001) (webpage), Apple & Kikuchi (2007) (PowerPoint), Wang (2004) (magazine) and Coleman (1992) (videos).

4. *Performance and organisation projects* see students arranging a public event such as a seminar, as in Carter & Thomas (1986).

North (1990) also identifies four types, but distinguishes between:

1. *Community projects*, whereby students collect information from the local community and use it to create the output, for example Fried-Booth (1982) and Guo (2007).

2. *Case study projects*, in which students gather information on, and find a solution to a problem affecting the local area, for example Schnickel's (2004) *Green business project* on environmentalism.

3. *Practical projects* require students to produce something of practical use, exemplified by Carter & Thomas (1986) in which ESL students taught cross-cultural lessons at local junior high schools.

4. *Library projects* centre on the resources within a library, which students use to research a particular topic and produce an output based on the information they find, for example North (1990).

Legutke & Thomas (1991) use a different approach for their typology in that it is based on point of contact:

1. *Encounter projects* see students engaging with native speakers of the TL, for example Legutke (1984, 1985) in an airport setting and Gu (2002) with Chinese students encountering American students online.

2. *Text projects* require students to read information sources (texts) written in the TL and to use the information to create output, such as in Ortmeier (2000) in which students read online sources to produce posters about their home countries.

3. *Class correspondence projects*, in which students correspond with individuals or organisations for a specific purpose, for example Raof & Yusof (2006) in which students contacted practicing civil engineers.

Henry (1994, pp. 13-16) distinguishes between projects in several ways: by degree of structure and simulation and by type of investigation. In *structured projects* the teacher decides the topic, activities and procedures while in *unstructured projects* students have almost complete autonomy at every stage. *Semi-structured projects* fall between these two types. Projects also have a degree of simulation. While *real-world projects* connect with real people, places, events and problems, in *simulation projects* the teacher provides the

necessary information for students to work on. These might be thought of as 'practical' and 'theoretical' respectively. She also identifies four types of investigation:

1. *Literature review projects*, useful in humanities subjects, require students to create an output which summarises information gathered through a literature review.

2. *Information search projects* are suitable for all academic disciplines.

3. *Empirical research projects* lend themselves to social science, general education, management and science subjects.

4. *Design projects* lead to the design of an artefact and perhaps even the production of a prototype and are suitable for engineering, technology, design and arts subjects.

Although Henry (1994) was writing with respect to general education, as her third typology suggests, these could also be useful in PBLL with groups of non-English majors who have a mandatory English course on their curriculum, as is often the case at Japanese universities. Such use of PBLL could help those students to develop both their general EFL communicative competence and English for Specific Purposes relevant to their major area of study and the careers it would typically lead to.

Alternatively, Wrigley (1998) categorises projects by their focus. In *political projects* students respond constructively to a social issue, while in *psychological projects* they focus on using the TL for personal development and human agency.

Clearly some of these typologies have a high degree of commonality. For example Fried-Booth's (1982) *Good wheelchair guide to Bath* saw students going into the city of Bath to interview citizens and organisations' representatives about wheelchair access. This conforms to Haines' (1989) *information and research* type, North's (1990) *community* type, Legutke & Thomas' (1991) *encounter* type and Henry's (1994) *information search*

type. It is also possible for one project to combine two or more types, as with Schnickel's (2004) *Green business* project in which students first created a service or manufacturing company (*semi-structured simulation*: Henry, 1994) then formulated a business plan (*political*: Wrigley, 1998) to address a specific environmental issue (*case study*: North, 1990). They also had to make a company logo (*design*: Henry, 1994), a radio commercial to publicise their product or service and a poster and presentation to explain it (*production*: Haines, 1989). The selection of project type(s) therefore seems to depend primarily on the intended learning objectives, though pragmatic considerations such as the setting, institutional regulations and available resources also play a part in the decision, as should students' interests.

Savignon (2001) and Kreiger (2005) highlight the greatly reduced opportunities that EFL students have for TL use compared to their ESL counterparts. This would seem to make *community* and *encounter* type projects impractical or impossible for Japanese EFL learners. However, as Eyring (2001) points out, the growth of various forms of internet-based communication such as e-mail, Skype, Line, FaceTime and a range of social networking sites such as Facebook, Youtube and Twitter have gone a long way towards redressing that imbalance. There are then almost unlimited ways in which information gathering and output can be combined to form bespoke projects to meet students' specific learning needs and interests. PBLL is demonstrably versatile and adaptable and it is for this reason, together with its many other advantages and benefits that, as Fried-Booth (2002, p. 3) notes, it has attracted sustained and increasing interest from FL education specialists.

3.2.4 PBLL project design and implementation

As the literature reviewed in this section will show, there seem to be three basic phases to a PBLL project. The first is planning, in which the project is designed. The second is

implementation, in which students use the TL to work through the tasks needed to produce an end product. The third is what Kemaloglu (2010, p. 26) calls "culmination", or what I refer to as the 'show-and-tell' phase, in which students share their end product with others. Though expressed in various terms and divided into differing numbers of steps, most literature offering general advice on designing and implementing PBLL projects incorporate these three stages (Fried-Booth, 1986, 2002; Haines, 1989; Ribé & Vidal, 1993; Katz, 1994; Wilhelm, 1999; Kemaloglu, 2010, pp. 94-95). Legutke & Thomas's (1991, pp. 181-187) more comprehensive structure for project-work implementation prefixes planning with activities to "socialise" (Mohan, 1986) students to communicative approaches to enhance the degree of student engagement with PBLL.

Though more succinct and less comprehensive than Legutke & Thomas' (ibid.) process, the ten-step implementation presented in Stoller (2005) seems to include most of the necessary steps:

> Step 1: Students and instructor agree on a theme for the project.
> Step 2: Students and instructor determine the final outcome of the project.
> Step 3: Students and instructor structure the project.
> Step 4: Instructor prepares students for the demands of information gathering.
> Step 5: Students gather information.
> Step 6: Instructor prepares students to compile and analyze data.
> Step 7: Students compile and analyze information.
> Step 8: Instructor prepares students for the language demands of the final activity.
> Step 9: Students present the final product.
> Step10: Students evaluate the project.

In her framework, planning occurs at steps 1-3, implementation during steps 4-8 and show-and-tell at step 9. It can be seen that step 10 adds a fourth phase: project evaluation, in which students reflect upon the project's learning outcomes and suggest improvements to the project. Clearly this is an important stage in both the learning process and project development but she sees it as "often neglected".

To these four phases another can be applied if needed: assessment. Here students' performance during the project (process) and/or their output (product) can be scored, perhaps as part of a course grading rubric. Ribé & Vidal (1993) provide templates for self-assessment questionnaires and reflection on learning. A more detailed review of literature relating to student assessment and PBLL project evaluation is beyond the scope of this study but Holliday (1988), Haines (1989, pp. 8-10), Wilhelm (1999) and Lovie-Kitchen (2001) provide additional information.

It is clear from the wide variety of project types shown in section 3.2.3 that projects are not homogenous and that how they are designed and implemented should to be tailored to the students' learning needs and prevailing resource limitations. Haines (1989, p. 5) for example points out that certain locales do not lend themselves to particular topics. A project which requires students in inner-city Tokyo to interview farmers about their farming practices might be impractical, though given the point made previously about how internet-based communication is breaking down such barriers this may not be quite the problem that it was when Haines published his book. However, the basic point remains that while Stoller's (2005) ten-step framework offers a useful generalised guide, project implementation should be tailored by omitting unnecessary steps, giving less time to less important steps, expanding others and where necessary working through the steps in an iterative rather than purely linear fashion.

Heilman & Stout (2005) reworked Stoller's (2005) long-standing, ten-point framework above to develop the six-stage 'Heilman model' of project implementation. In essence it simply condensed and relabelled some of the steps in Stoller's framework while omitting or overlooking others which did not apply to the projects they used to develop their model. However, while it offers no innovations, it does serve as an example of how Stoller's

framework can be adapted to meet the needs of a particular institution, project, student group or teacher.

Four other themes commonly run through much of the literature relating to PBLL projects' implementation. The first is the emphasis on the collaborative nature of the endeavour, both between students and between students and their teacher (Wilhelm, 1999; Stoller, 2005, p. 11). This collaboration would seem to be the source of much of the learning, intended or otherwise, that comes from PBLL. The second is that, as explained in section 3.1, PBLL is communicative, using the TL to get things done. In the process, students are not just working towards the creation of the end product but also learning to use the TL. The third is the need for ongoing tutorial support and feedback (Wilhelm, 1999; Courneya, 2001; Dolmans, Wolfhagen & van der Vleuten, 2001; Hardy-Gould, 2003, p. 8). Students will often need impromptu in-class assistance not only with respect to the TL but also with other content knowledge or skills, IT skills, research skills and so on, as well as out-of-class tutorial support. Rucynski & Rucynski (2009, pp. 699-700) suggest assigning work which students routinely submit as part of a project as an opportunity to provide formative and corrective feedback. This to some extent mimics the process approach to writing and could be used as a more systematic approach to providing feedback. Without this support, project teams might digress or come to a standstill. Finally, and somewhat at odds with the collaborative nature of PBLL and the provision of feedback is the need for teachers to "keep out of the way" (Haines, 1989, p. 4). As Brydon-Miller (2006, p. 43) explains:

> [T]eachers must learn to trust their students' knowledge and experience and must relinquish sole control of the educational process in order to engage in genuine dialogue.

The reason for this is that while teachers may instinctively feel the need to assist when students struggle, much of the learning that occurs through PBLL, for example developing strategic competence, comes when they try to work things out for themselves.

These requirements can make PBLL problematic for students and teachers who are new to it. Some embrace it, as found by Becket (1999), while others evaluate it negatively, as in Eyring's (1989) study. In Petersen (2008, p. 89) one teacher reported that "It's like air traffic control compared to my normal teaching approach", presumably meaning that it was intense and required continuous concentration on the dynamic situation within the classroom. However, the literature reviewed in section 3.4 suggests that this demanding approach might be worth considering given the potential learning outcomes reported.

3.2.5 Project materials

Given the diversity of project types already discussed in section 3.2.3 and that each project requires its own tailored materials, this section does not aim to review project-specific materials but rather those needed to implement PBLL projects in general terms, or what Henry (1994, p. 63) calls "facilitative devices". As this section will show, most related literature recommends the use of introductory materials and a project plan to help students to work towards a project's intended learning outcomes.

Once a project theme is selected, the literature recommends the use of preparatory, introductory activities prior to project commencement. Legutke & Thomas (1991, pp. 182-183) refer to this stage as "topic orientation", while Haines (1989, p. 5) terms it "lead-in activities". Collectively the literature sees this as a necessary stage in the PBLL process because it helps to equip students for the demands of the project. It also gives them chances to activate and share related knowledge and experiences (schema) and can pique their interest in, and curiosity about the theme. This can be realised via a wide range of materials, media and activities, of which Ribé & Vidal (1993, pp. 27-33) offer a good

selection. An example is provided in appendix 2 in the form of the introductory worksheet used for the TV infomercial project with this study's Oral English group.

The introductory materials therefore set the stage for the project, but the literature also emphasises the need to formalise the details (imposed or negotiated) so that students understand clearly what is expected of them. This can be done through a "project map" (Dooly, 2008), "plan" (Fried-Booth, 2002) or what I call a 'project brief'. There are numerous styles but the pedagogic purpose is the same: to set out the general and specific information needed for students to complete the project successfully. Recommended content for briefs and advice on how to create them differ among the literature, though there is a high degree of commonality indicating a consensus on the essential pedagogic elements. Below is an amalgamation of Haines (1989), Ribé & Vidal (1993), Henry (1994), Fried-Booth (2002) and Dooly (2008). Note that elements can be retained or omitted depending on the project's needs.

1. A statement of the project's general theme and situational context.

2. A statement of the project's assignment, including output format.

3. A specification of any linguistic or topical content requirements.

4. Expectations relating to participation and collaboration.

5. A list of sequenced tasks to help students manage the project.

6. Useful hints or tips.

7. A project deadline.

8. Details of related assessment criteria.

9. A space for students to write notes as they progress through the project, which has the advantage that their initial notes are on the same paper as the project brief.

The three project briefs used in this study are provided in appendix 3 and section 5.4.1 explains how they fit in to the research design.

In addition to the use of introductory materials and project briefs recommended by the literature, I have found it useful to provide an example of the project output to my students very early in the project. Surprisingly, most of the more comprehensive guides to using PBLL such as Legutke & Thomas (1991), Henry (1994), Fried-Booth (2002) and Stoller (2005) overlook this provision, perhaps because they assume that the project-work will be highly unstructured and free-form. Clearly, the less structured a project is, the less prescriptive a sample can be, until, in completely unstructured projects, the provision of a sample becomes problematic or even counter-productive because it might be seen by students as imposing a preferred direction. However, Wilhelm (1999, pp. 16-17) advocates the provision of such models and Heilman & Stout (2005, p. 589) suggest that showing examples of project-work can "set an expectation, spark [students'] interest, and motivate [them]". Haines (1989, p. 2) concurs:

> [a] clearly defined and agreed upon end product is an essential feature of project work…Without [it] projects would have no natural conclusion and activities might become meaningless, unrelated exercises…In addition to being the focal point for the whole project, the end product also provides students with an incentive to co-operate with each other, and to present their best work in an attractive form.

To this end it could help students, and the teacher, to show them a high-quality example of the end product to aim for, not necessarily to highlight specific content or design features, as that might dampen creativity, but to demonstrate the requisite standard of work.

The literature also includes several project resource books which provide ready-made materials to introduce, organize and exemplify PBLL projects, for example Haines (1989), Fried-Booth (1986, 2002), Hardy-Gould (2003), McMahon (2005), Fessler (2007) and Suzuki (2008, 2009). A review of these is not feasible here except to say that each is useful for its target audience and reflects the way in which the respective author feels

projects should be conducted. Most also preface the project material with a short primer on the PBLL approach and suggest how to use the material effectively.

Finally, along with other aspects of a project, the content and design of these materials would be subject to evaluation in step ten of Stoller's (2005) implementation framework, discussed in the previous section.

3.3 A historical overview of PBLL literature

Before going on to review literature specifically relating to the TL learning outcomes associated with PBLL in section 3.4, a historical overview of PBLL literature will both place this study within its wider literary context and show how our understanding of PBLL, its theoretical bases of support and application have developed and deepened over time.

The first paper to report a PBLL project in a widely distributed journal seems to have been that of Eslava & Lawson (1979) in which they sought to provide an interesting "situational context" (p. 1) within which students could use English in a meaningful way in their oral English course. They simply removed the soundtrack from an episode of a popular British TV series of the time (*Upstairs, Downstairs*) and asked students to create their own dialogue using only the video images. They found that this developed the participants' discourse and sociolinguistic competencies.

Eslava & Lawson's (1979) paper started a trickle of such literature reporting other PBLL projects which have accumulated over time to form a substantial body of work too large and varied to comprehensively review in detail here. Instead, for brevity and relevance I will summarise and critique Zhang's (2010) tri-decade review of PBLL literature between 1979 and 2008. He starts by neatly dividing the literature into three decades (table 3.2)

with each representing what he sees as a distinct phase in the development of PBLL literature and the work it represents (p. 69).

Table 3.2: A tally of PBLL-related literature between 1979 and 2008[a]

	Decade			
	1979-1988	1989-1998	1999-2008	Total
Articles	5	22	31	58
Research articles	2	3	4	9
Teaching materials and books	1	3	5	9
Doctoral level theses	0	1	5	6
Anthologies	0	0	1	1
Sub- total	8	29	46	83

[a] Translated and adapted from Zhang (2010, p. 69)

The first phase (1979-1988) is characterised by a relatively small number of predominantly anecdotal reports of projects set in various countries. They each describe a project and often its learning outcomes but offer little or no empirical evidence for their claims. By way of example, he outlines Fried-Booth (1982) which reports a project at an ESL language school in England in which advanced students created a guidebook showing wheelchair access in local public facilities by going to various public amenities and interviewing citizens and amenity staff about wheelchair access and services. He sees this phase as the emergence of PBLL among the ESL/EFL teaching community's consciousness, still in its infancy, as suggested by the low number of publications: seven papers, one book (Brumfit, 1984) and the absence of any doctoral theses or anthologies.

The second phase in the literature was between 1989 and 1998. Table 3.2 shows an increasing number of publications including a resource book by Haines (1989). It was not merely a photocopiable resource but, representative of this phase, it offered practical advice on how to design and implement PBLL classroom projects. There was also the first doctoral thesis on PBLL (Eyring, 1989) which examined teachers' and students'

evaluations of the approach. Importantly, this study revealed that the many positive learning outcomes attributed to PBLL to that point were accompanied by some less obvious, negative evaluations of PBLL by both students and teachers. It also seems to have been the first large-scale empirical work on PBLL. Zhang concludes that this second decade started to demonstrate a shift from simply reporting projects and their apparent outcomes to describing and discussing theoretical models and classroom practice. There was also more in-depth exploration of the associated learning outcomes and increased interest in using PBLL to integrate language and content instruction, for example Stoller (1997). As PBLL started to build a theoretical foundation, uptake in the classroom gained momentum and its visibility in related literature gradually increased.

The final, most recent stage was between 1999 and 2008, in which the approach became more prominent in the literature. In response to negative evaluations by students already reported by that time, Beckett & Slater (2005) created the Project Framework, an intervention intended to 'socialize' (p. 108) students to new ways of looking at and thinking about foreign language learning and thereby to raise their awareness of how PBLL might work towards elements of linguistic competence such as grammar and vocabulary. Empirical work became more commonplace, though was still sparse compared to other areas in language teaching. Zhang concluded that during this decade, PBLL developed into an important model in English teaching worldwide, in large part due to the efforts of proponents such as Fried-Booth, Stoller and Beckett who were highly vocal advocates for the approach.

Overall, his review concluded that (as of 2010):

(1) PBL[L] practice had not yet gone beyond the preliminary stage of experimentation;

(2) PBL[L] theoretical research was at a stage of conceptual exploration and model-
    building;

(3) PBL[L] empirical research was characterized by exploratory and descriptive research based on case analysis.

The development and increasing sophistication and popularity of PBLL indicated by Zhang's review is also evident in Japan-based literature, for example Matsumoto (2002), Carlton (2004) and Sullivan (2007). PBLL also seems to be increasingly visible at language-teaching conferences, though no analyses were conducted to support either of these claims. However, this impression suggests that EFL teachers and students in Japan are becoming increasingly aware of PBLL's potential language learning benefits.

Zhang's review was not exhaustive and would have been improved with the inclusion of contemporary Masters degree dissertations such as those by Kitano (2004), which presented explanations, guidelines and students' evaluations of five PBLL projects, or Petersen (2008) which built on Eyring's (1989) and Beckett's (1999) doctoral theses into teachers' and students' evaluations of the approach. It does however remain a very useful paper. It also highlights the need for more large-scale empirical studies of the language learning outcomes associated with PBLL which, as discussed in section 3.6, serves as the justification for the present study.

In this section I have put forward the various theoretical bases for PBLL as an approach to foreign language learning. I have shown that it takes a constructivist view of the learner and a holistic view of language and that, based as it is on the Communicative Approach, it seeks to develop communicative competence, primarily through purposeful, meaning-oriented TL use which focuses on both function and form. Through a review of related literature I have also provided historical context showing how the humanistic movement in education in the early 20th century led to PBL in numerous forms, which in time led to PBLL around the late 1970's. I now turn to literature relating to the foreign language learning outcomes of PBLL reported in the literature.

3.4 The language learning outcomes associated with PBLL

Kobayashi (2006, p. 72) points out that there are relatively few empirical studies examining PBLL's TL knowledge learning and skills development outcomes. Within the totality of PBLL-related literature to date, much pertains to various related theoretical issues. For example, Katz (1994) offers a general overview of project-work. Sheppard & Stoller (1995), Stoller (1997, 2002, 2005), Alan & Stoller (2005) and Fujioka (2012) give frameworks or guidelines for integrating PBLL with English for Specific Purposes courses, content courses and general foreign language courses respectively. Wilhelm (1999) gives useful "do's and don'ts" to teachers on conducting collaborative project-work. Heilman & Stout (2005) and Dooly (2008) write on the stages through which teachers can implement collaborative foreign language projects. Others such as Moss & Van Duzer (1998) and Krishnan & Ling (2010) advocate for PBLL by outlining its various potential linguistic, cognitive, social or affective outcomes. Of the more practical papers, many such as Vincent (1990), Gardner (1995), Nakayama (2001), Carlton (2004), Levine (2004), O'Brien (2004), Schnickel (2004), Apple & Kikuchi (2007), Kagnarith, Theara & Klein (2007) and Rucynski & Rucynski (2009) all variously describe a projects' materials, implementation, assessment, evaluation and anticipated learning outcomes but are not empirical studies of the project(s) they present.

Other theoretical and empirical PBLL-related works have reported numerous additional language learning and cognitive and social skills development outcomes. Improvement in affective factors such as self-efficacy (Suzuki, 2007), motivation (Nor, 2007) and learner autonomy (McCarthy, 2010) which seem to support SLA have also been reported. However, since the current study relates to *perceived* EFL learning outcomes specifically, it is this subset of the literature on which I will focus here, in order to place the current study and its findings within that particular field.

Perhaps most common among the empirical studies on PBLL's TL learning outcomes that do exist are those which conduct a project then gather participants' retrospective feedback on it, usually via surveys and occasionally also interviews. For example, an often-cited paper by Carter & Thomas (1986) describes their 'Dear Brown Eyes project' in Bath, England, in which 12 ESL students prepared and taught cross-cultural lessons at a British junior high school to 8-11 year old pupils for four days. Through observation notes and participants' post-project feedback, Carter & Thomas (1986) reported enhanced communicative strategies and improved strategic competence in English.

In another study, set in a French course at a polytechnic in England, Coleman (1992) did a three-week long project to produce French language videos of approximately ten minutes length on self-selected topics. The exact number of participants is clearly stated but from the results cited, it can be inferred that at least 93 students took part. A post-project survey found that a large majority of the respondents perceived gains in their French writing (74%), speaking (82%), reading (64%) and listening (77%) abilities (p. 36).

Beckett's (1999) doctoral thesis was set in a Canadian high school with a high proportion of students whose L1 was not English (62%). The qualitative study spanned a two and a half year period, during which Beckett used observation notes, interviews, analysis of institution-, course- and project-related documents and discourse analysis to collect data on 73 Chinese-speaking ESL students and their three teachers. The projects, which were a predetermined component of the curriculum, were situated in "school classrooms, libraries, computer rooms, and field trips" (p. 94). The study found that the projects had helped to improve the students' English writing, vocabulary and presentation skills (pp. 125-126).

Matheny's (2004) 'Drama project' required nine Japanese third year junior high school students to rehearse, perform and video-record a short, prepared English language playscript to improve their EFL reading proficiency. The project took four classes, though

it was noted that more videoing time would have been helpful. Matheny's work as an Assistant Language Teacher (ALT) took him to other schools in the interim, so he could not observe the project sessions directly and due to a methodological oversight, written feedback on the project was not collected from the nine participants that he worked with personally. Instead, the supporting statements cited came from another third year group that had conducted a similar project. Thus the number of actual respondents is unknown, but was likely around nine since this appears to have been a rural school and classes within a year are usually roughly equally sized. However, those students reported perceived improvements in English pronunciation and fluency from reading aloud.

In Ethiopia, Tessema (2005) integrated a university level writing project with the process approach to writing. The 45 students were tasked with writing a problem-solution essay over six contact hours spread over two weeks. It is unclear whether the students' feedback on the project was verbal or written, but statements led to the findings that 43 participants (96%) believed that the project had helped them to practice advanced writing (p. 28) and the perception among students that their writing skills had improved.

Munezane's (2008) 'Et tu, robots?' interdisciplinary project at the University of Electro Communications in Tokyo involved 72 sophomore science majors in an eight-week long, robot-themed project intended to enhance English proficiency, critical thinking and motivation to study English. Students had to design a robot, present on their design, discuss and summarise various robot-related videos and articles and then write a related argumentative essay. The project was deemed successful in attaining its goals because, through an open questionnaire, the students' reported the perception "that they had made progress in English proficiency through thinking and creating using English" (p. 826).

Kemaloglu (2010) examined the effect of six-week long research projects on the EFL proficiency of 100 Turkish university EFL students. The students' four teachers, who

actually supervised the projects, also participated. Students had to research a given topic out-of-class and produce a paper which synthesised their findings with their own views. Post-project interview and questionnaire responses indicated perceived gains in vocabulary, grammar, speaking, oral presentation and writing skills, though Kemaloglu conceded that she was not personally able to observe the teachers or students during their project-work. She also concluded that the decision to complete the project out-of-class had resulted in excessive use of the students' L1 at the expense of EFL development.

As Kemaloglu (2010) noted with respect to her investigation, the results of these various studies point to PBLL's versatility in helping students to acquire various aspects of TL knowledge and to develop a range of TL skills within a single project. Furthermore, they suggest that PBLL can be applied to good effect at different levels within a range of educational systems and cultures and for various target languages. However, these studies reported *perceived* gains from the teachers' and/or students' perspectives and predominantly only through retrospective data. Therefore it is unknown to what extent the projects *changed* actual or perceived TL proficiency because there were no pre-project measures against which to compare post-project data.

A much more robust research design was employed by Simpson (2011) with Thai undergraduates (*n*=26), through which she investigated whether a 16-week project improved their EFL proficiency. The TOEFL PBT and quasi-validated in-house speaking and writing tests were administered pre- and post-project to give quantitative measures of change across all four language macro-skills. Additionally, a Likert scale observation scheme and field observation notes taken by the teacher-researcher, and participants' feedback forms, project diaries, an open-ended questionnaire and "work-in-progress discussions" were used repeatedly at various points during the project to gather predominantly qualitative data. Though many of the data collection tools differ, this

research design is very similar to my own, described in section 5.5.2. Simpson reported her perception that "the students gradually developed their skills in grammar, spelling, punctuation, sentence structure, and the writing process". Via analysis of the pre-/post-project language tests' score data, she also found that statistically significant actual gains had been made in listening, reading, speaking and writing (p. 180).

However, one criticism of the analysis would be that the quantitative results, so central to the study's conclusions, depend on how the low, middle and high score groups were formed. Unfortunately, the rationale for group formation was not clearly explained. Simpson seems to have arbitrarily created three roughly equally sized groups (8, 10 and 8 respectively), rather than base group formation on statistical quartiles, which would have been a more valid, reasoned grouping procedure. Also, data could have been analysed as continuous to give higher resolution to the distribution of results, rather than to use three distinct groups. However, she does make an interesting point, relevant to the current study, that students' qualitative data sometimes contradicted quantitative test score results in that the former reported perceived gains where the latter indicated no actual gains.

Collectively, the studies reviewed here tend to support the findings of Stoller (2006, p. 25) who offered a rudimentary but informative and useful analysis of 16 papers published between 1982 and 2004 highlighting the benefits commonly attributed to PBLL in the literature (table 3.3 below). Kobayashi (2006, p. 72) also concurs with Stoller's findings in identifying all of the same learning outcomes associated with PBLL.

The empirical studies reviewed here report perceived and, in the case of Simpson (2011), actual gains but these gains cannot be attributed exclusively to the project-work undertaken because other unrelated teacher or student-initiated instruction and/or practice

Table 3.3: The advantages of PBLL often reported in the literature[a]

Reported advantages	Project-Based Language Learning literature															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Language learning benefits: a more authentic communicative target language use experience;	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
language skills development, often through repeated purposeful opportunities for communicative output, modified input, negotiated meaning; an integrated focus on form and various other aspects of language		✓	✓		✓	✓	✓		✓		✓		✓	✓	✓	✓
Cognitive skills development: improved decision-making, analytical, critical and problem-solving skills	✓					✓	✓	✓							✓	
Social skills development: enhanced ability to function cooperatively and collaboratively in groups		✓		✓	✓	✓		✓	✓	✓	✓	✓		✓		
Affective benefits: enhanced motivation, engagement, participation, enjoyment and creativity;		✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
improved confidence, sense of self, self-esteem, attitude toward learning, comfort using the target language and satisfaction of achievement;		✓	✓			✓				✓		✓	✓	✓		
increased learner autonomy, independence, self-initiation and willingness to take responsibility for one's own learning			✓			✓	✓	✓	✓			✓				
Enhanced content knowledge	✓	✓	✓					✓		✓	✓					✓
Key: A: Allen (2004); B: Carter & Thomas (1986); C: Coleman (1992); D: Ferragatti & Carminati (1984); E: Fried-Booth (1982); F: Gardner (1995); G: Gu (2002); H: Gu (2004); I: Ho (2003); J: Lee (2002); K: Legutke (1984); L: Legutke (1985); M: Levine (2004); N: Padgett (1994); O: Sheppard & Stoller (1995); P: Stoller (1997)																

[a] Adapted from Stoller (2006, p. 25)

might also have contributed in the interim. Given that, by its very nature, PBLL projects take several sessions extending over days, weeks or even months, this limitation seems unavoidable.

While these studies have shown various TL learning gains through the approach, PBLL also has its pitfalls which, for balance, are examined briefly in the following section.

3.5 Difficulties with the PBLL approach

While PBLL has the potential to confer language and content learning, cognitive and social skills development and affective benefits that aid SLA, it is not without its problems. This section briefly outlines those more commonly highlighted by the literature.

Many of the benefits of PBLL stated in the previous section are derived from communicative TL use in groups, but some students dislike group work, preferring to study and learn alone. Kaufman & Mann (2001, pp. 147-148) point out that it is important for students to "understand the rationale underlying PBL right from their first week", in order to appreciate why they will be required to work collaboratively. However, they add that:

> Remediation of performance in the group is a process of learning new behaviours and skills rather than of changing students' personalities…When students improve their group participation and learning skills, their self-efficacy will also improve, providing the basis for ongoing learning. (p. 148)

In other words, students should not view the requirement to work collaboratively as an imposition, counter to their preferred mode of study, but as an opportunity for personal development and growth. Recommended group sizes vary: three or four (Ribé & Vidal, 1993, p. 43), four (Fushino, 2010, p. 361) and between four and six (Haines, 1989, p. 7). For advice on forming project groups see Ribé & Vidal (1993, p. 43) and Fushino (2008, 2010).

Atkinson (1995) highlights one of the most commonly reported problems in PBLL literature when he writes "in many contexts overuse of L1 is still the biggest barrier to really effective language teaching". Substantial evidence shows that L1 use can have a positive role to play if used advisedly by both teachers and students (Atkinson, 1987, 1995; Weschler, 1997; Burden, 2000; Cook, 2001; Nation, 2003; Macaro, 2005; McMillan, Rivers & Cripps, 2009; Stephens, 2006; Carson & Kashihara, 2012a, 2012b). The question therefore becomes not whether L1 is acceptable but at what point it becomes excessive. The simple but concise answer would seem to be the point at which it starts to impede rather than progress TL learning. Several writers seek to overcome the necessity for L1 use through adequate language instruction prior to the project (Wilhelm, 1999, Hardy-Gould, 2003, p. 7; Stoller, 2002; Alan & Stoller, 2005). Others suggest guidelines, negotiated with students or imposed by the teacher, which set out occasions in which, or functions for which L1 use is acceptable (Haines, 1989, p. 8; Stephens, 2006; von Dietze & von Dietze, 2007; Yonesaka & Mitsutada, 2007; McDowell, 2009; Birch, 2010). Alternatively, Haines (1989, p. 8) concedes that, if the problem persists, "[w]ithout resorting to authoritarian measures or threats, there is nothing you can do about this". Part of the philosophy of PBLL is that students take responsibility for their work, which includes the extent to which they choose to use L1 and L2.

A frequently studied aspect of PBLL is students' and teachers' evaluations of the approach. Positive perceptions present no problem, but negative evaluations, reported by Eyring (1989), Beckett (1999, 2002) and Moultan & Holmes (2000) show that where they exist, they disrupt smooth implementation and likely reduce engagement with PBLL, inhibiting learning. To pre-emptively solve the problem, Wilhelm (1999) sets out guidelines for collaborative work and Beckett & Slater (2005) created an intervention called the Project Framework. Both are designed to help students transition from more traditional, teacher-centred, grammar-based pedagogies and to become socialised to PBLL.

Woods' (2001) case study highlighted the problem that some students do not do their fair share or absent themselves, thus requiring other team members to carry a disproportionately heavy workload. He saw this problem as being rooted in a disparity between some students' expectations and the classroom reality. To overcome the problem, he recommended "learning contracts" (p. 169), also advocated by Knowles (1975). These are written documents that formalise the commitment the student is making to the group. Woods (2001) also suggested the use of "self- and peer-rating forms" to give each student a voice with which to express their (dis)satisfaction with their teammates' contribution and performance. While these measures may be effective, it might also be useful to follow Kaufman & Mann's (2001, pp. 147-148) suggestion, stated above, that teachers should impress upon their students at the start of a course that the collaborative nature of PBLL leads to a wide range of learning outcomes, which might encourage higher levels of collaborative participation.

Other problems exist, such as teacher trainability, disruptive students (Benbow & McMahon, 2001), numerous TL errors, being restricted to the classroom and disparate group speeds. All are briefly discussed by Haines (1989, pp. 4, 8) but are less represented in the literature and so are not reviewed here.

3.6 A call for empirical study

This review has revealed a growing and increasingly sophisticated body of work in the field of PBLL. A substantial number of published papers describe an impressive diversity of projects. Though some are anecdotal, others have used relatively small qualitative datasets in support of the varied learning outcomes they report. Quantitative studies however remain comparatively very rare and those that do exist are generally relatively small-scale. As the approach has gathered proponents worldwide, advocates have started to formulate theoretical bases of support and frameworks for implementation. Also, the

number of larger scale and empirical studies has gradually increased, adding weight to previous reports of a wide range of learning outcomes, though these are still supported by predominantly retrospective qualitative data. However, the review has also shown that there are very few larger scale, empirical studies utilising qualitative *and* quantitative data specifically seeking to examine the scope and scale of perceived or actual language learning outcomes associated with the approach. Language learning is not, and need not be the only intended outcome in foreign language classrooms, but it is a core objective, so it is very surprising that few studies have yet sought to measure the extent to which PBLL is perceived to meet, or actually meets this primary goal.

Calls for such research have been made from within the literature itself. Stoller, a long time PBLL proponent urges "[t]here is a pressing need for more empirical research on project-based learning in the context of L2 and FL instruction" and specifically identifies the measurement of students' language learning gains, perceived or actual, through project-work as a useful area of study (2006, p. 35). She argues that such research "is needed to strengthen the theoretical foundation for project-based learning" (p. 36). Similarly, van Lier (2006, p. xii) states that additional empirical studies on PBLL's "effects and conditions" are needed and that "[i]t is urgent to conduct research that carefully triangulates data and research methods, both quantitative and qualitative, since that is one of the few ways to catch the attention of policy makers" (p. xiv). Petersen (2008, p. 117) also calls for research on how PBLL develops language proficiency, though she acknowledges that "experimental or quasi-experimental studies are difficult to set up", which might explain the lack of such research to date.

There is then a very serious need to study the perceived and actual language learning outcomes associated with PBLL and to do so through empirical, mixed qualitative and quantitative research. If the results of these more rigorous studies support prior findings of

FL development, this would argue in favour of the approach's inclusion in EFL courses in Japan and more widely for other foreign languages and in other settings. Therefore, in response to this need, this thesis considers the following research question:

What are the perceived English language learning outcomes associated with Project-Based Language Learning when applied to a Japanese junior college's EFL courses?

The mixed methods case study design used to investigate this question is described and justified in the following chapter, and its implementation is set out in Chapter 5.

This chapter has reviewed literature on various aspects of PBLL. It first established the approach's underlying constructivist and holistic educational philosophies and how the approach seeks to develop communicative competence by taking SLA theories into account and by adhering to the principles of the Communicative Approach. It then reviewed PBLL's lineage and established a definition and conception of practice for the approach. It also examined various project typologies and literature on how projects might be implemented. It was also demonstrated that PBLL is a developing, widely-used and highly adaptable approach with outcomes other than language learning but that it also has practical problems within and beyond the classroom. Finally, it was established that while the body of PBLL literature has grown significantly in depth and breadth since 1979, many gaps remain, including the need to examine whether and to what extent the approach might enhance students' perceived TL communicative competence. This thesis sets out to answer this question.

Chapter 4: Research design and rationale

In this chapter, I first define four key terms relevant to the study's underlying philosophical and methodological rationale: its research paradigm, design, tradition and tools. I then describe and justify my choice of each.

The terminology used to describe and discuss research designs and their constituent components has become somewhat mixed in the literature in that usage for terms such as research paradigm, design, tradition and method varies. Therefore to avoid confusion, in section 4.1 I first define these terms as they are used here. These definitions are then applied in sections 4.2-4.5 to describe and justify my choice of research paradigm, design, tradition and data collection tools. In section 4.6, I reflect upon how my dual roles as teacher and researcher influenced the study. Finally, since Japanese and English play significant roles in this research, the chapter closes with section 4.7 which offers a brief examination of issues pertaining to conducting multilingual research.

4.1 Definition of terms

Starting at the top of a loose hierarchy of terms, I will take Creswell's definition of research paradigm: "a basic set of beliefs that guide action" or what he more simply calls a "worldview" (2009, p. 6). Examples include post-positivism, pragmatism and critical theory, but here I apply constructivism for reasons explained in section 4.2. I will also take Creswell's inclusive definition for research design: the "plans and the procedures for research that span the decisions from broad assumptions to detailed [forms] of data collection" (2009, p. 3). Of the four research design options identified by Creswell (2014), *quantitative*, *qualitative*, *mixed methods* and *multiple methods*, I have used a mixed methods design, justified in section 4.3. Johnson, Onwuegbuzie & Turner (2007) and Morse & Niehaus (2009, p. 20) have both noted the lack of consensus in defining the term

'mixed methods', so here I opt for simplicity by amalgamating Johnson et al's (2007, p. 129) and Dornyei's (2007, p. 44) definitions: an intellectual and practical synthesis of qualitative and quantitative data within a single research project.

Subsumed under a research design are a range of research traditions, defined as "models that provide specific direction for procedures in a research design" (Creswell, 2009, p. 11). Examples include ethnography and grounded theory, but here I have conducted a case study, the choice of which defended in section 4.4. Each tradition can employ one or more tools for collecting and analysing data. (To avoid confusion, the term 'tools' is used rather than data collection 'methods' because the latter term already refers here to the level of design.) For this study, these tools include surveys, semi-structured interviews, field observation notes and students' project output. The rationale for choosing these tools is provided in section 4.5.

4.2 Constructivism

A researcher's choice of paradigm depends largely upon the purpose to which their research and its results will be put. For example, this study explores the perceived EFL learning outcomes associated with PBLL. As mentioned previously, foreign language learning through group project-work involves a diverse range of linguistic, cognitive, social and affective processes, resulting in meanings, knowledge and behaviours which are socially co-constructed. Furthermore, participants' views of PBLL are based not only upon, and coloured by their experiences with the approach during their course of study, but also by their wider EFL education and life experiences and by their pre-existing beliefs and values regarding education in general and EFL education in particular. As such, PBLL can only be properly understood "when seen within its socio-cultural and socio-historical contexts" (Beckett, 1999, p. 98, citing Ratner, 1997). A viable interpretation of 'truth' and 'reality' involving participants' responses and behaviours

should therefore incorporate both the participants' and researcher's perspectives, accounting for the social, cultural and historical contexts within which they occur. The result would be a co-constructed interpretation between participants and researcher. As shown in section 3.1.1, the research paradigm best suited to such a study is constructivism, the primary precept of which is "that reality is socially constructed so the focus of research should be on an understanding of this construction and the multiple perspectives it implies" (Richards, 2003, p. 38).

4.3 Justification for a mixed methods design

First I should reiterate clarification on a point of potential confusion. Since the term 'methods' is often used to refer to *how* data are collected rather than the *form*(*s*) those data take, the term 'mixed methods' is somewhat confusing. In this study, I will use the generally accepted term 'mixed methods' to mean *type*(*s*) of data, while 'tools' will refer to *way*(*s*) in which those data are collected.

In this section I offer the rationale underlying my choice of a mixed methods research design. After outlining the features of quantitative (QUAN) and qualitative (QUAL) research as a foundation for what follows, I explain why a mixed methods design is most appropriate for this study. I then outline some general principles for mixing data types, explain how they are combined here and why that combination was chosen. Finally, I discuss some of the demands this choice makes of the researcher in terms of evaluative measures of quality.

4.3.1 Quantitative versus qualitative inquiry

Dornyei (2007, p. 25) points out that applied linguistics research is rarely purely quantitative or qualitative in nature and usually contains elements of both. Since this is the case with this study's mixed methods design, it is useful first to examine the

distinguishing characteristics of quantitative and qualitative inquiry when each is applied as a research design in its own right, as this influences the rationale underlying the principled mix of these two forms of inquiry described later in section 4.3.3. Table 4.1 summarises these features by conflating work by Chaudron (1988, p. 16) [1], Edge & Richards (1998, pp. 336, 345) [2], Mackey & Gass (2005, pp. 2-3) [3] and Dornyei (2007, pp. 32-34, 37-38) [4].

Table 4.1: Contrastive features of quantitative and qualitative inquiry

Quantitative inquiry	Qualitative inquiry
• Positivistic[3], experimental	• Naturalistic[1, 3, 4], humanistic[3], constructivist
• Obtrusive control[1, 2] of an environment to isolate the variable to be measured[2, 3]	• Observation of uncontrolled variables[1,4] occurring in their natural setting
• Controlled measurement[2, 3]	• Controlled observation[2]
• Product-oriented[1], outcome-oriented[2]	• Process-oriented[1, 2]
• Objective[1, 2, 3, 4], remote analysis of data[2]	• Analysis through subjective[1, 2, 4], exploratory and interpretative examination of data[4]
• Oriented towards verification and confirmation through replicable, 'hard' data[2]	• Oriented towards exploring and discovering information contained within the data[4]
• Assumes a stable reality[2]	• Assumes a dynamic reality[2]
• Results are generalisable to other settings[2]	• Results may not be generalisable[2]
• Seeks "to devise explanatory generalizations"[3, 4]	• Seeks to understand context-specific 'truth' and 'reality' by examining multiple perspectives[3, 4]
• Generally yields numerical data indicating the degree to which a variable is present or absent[4]	• Generally yields textual, pictorial or videographic data[4]
• Often analysed through software which generates descriptive and/or inferential statistics or numerical results[4]	• Often analysed through software to extract trends or other information of interest to the researcher
• Research design defended by qualities of validity, reliability and objectivity[3]	• Research design defended by qualities such as credibility, transferability, dependability and 'confirmability'[3]

Given the properties outlined in table 4.1, it is clear that quantitative research is well-suited to measuring the degree to which a variable is present or absent but that it has little or no power to explain the very human underlying thought processes, beliefs, assumptions, values or experiences which gave rise to those numerical results. Conversely, qualitative research examines "contextualized experience…and requires that the researcher's findings take sensitive account of the interpretations and constructions of others who live in the context being explored" (Edge & Richards, 1998, p. 334). Richards (2003, p. 249) also points out that this focus on a deeper understanding of what the data reveals is central to qualitative research. As the following section shows, combining these characteristics in a mixed method design can offer a more well-rounded view of reality than either design alone.

4.3.2 Justification for mixed methods research

The literature highlights five chief justifications for merging quantitative and qualitative inquiry to form a mixed methods design. Firstly, there is the purely logistical benefit of being able to conduct one integrated study more quickly and efficiently than with a multiple methods design across a research program (Morse & Niehaus, 2009, p. 14). However beyond that, there are also valid philosophical and academic justifications.

Foremost is that, as table 4.1 shows, the strengths of quantitative data can often compensate for the weaknesses inherent in qualitative data and vice versa. Dornyei (2007, p. 63) notes that when they are mixed such that a research design exhibits "complementary strengths and nonoverlapping weaknesses", that design's validity and credibility are enhanced.

Next, where a researcher wishes to study a complex phenomenon simultaneously at both the wider level of the class group and at the narrower level of the individual student, or to concurrently examine various aspects of that phenomenon, a single type of data, whether

quantitative or qualitative, will likely not provide sufficient depth *and* breadth of explanation, clarification and understanding to answer the research question(s) (Morse & Niehaus, 2009, p. 13). In such cases two or more types of data need to be utilised within a mixed methods design. While these may not necessarily mix quantitative and qualitative data, they often do (ibid., p. 14), as with this study. Dornyei (2007, p. 45) refers to this capacity of mixed methods design as "[m]ulti-level analysis of complex issues" through which:

> …we can gain a better understanding of a complex phenomenon by converging numeric trends from quantitative data and specific details from qualitative data. Words can be used to add meaning to numbers and numbers can be used to add precision to words…we are interested at the same time in both the exact nature (i.e. QUAL) and the distribution (i.e. QUAN) of a phenomenon.

Similarly, Creswell (2009, p. 203) agrees that combining qualitative and quantitative data offers "more insight…than either form by itself". Thus a mixed methods design provides a more balanced response to the research question by offering a more inclusive interpretation of reality.

A fourth advantage of a mixed methods design is highlighted by Morse & Niehaus (2009, p. 14) and Brannen (2007, p. 284), who writes that "one type of data (usually quantitative) is used to corroborate another type of data (usually qualitative)". This is a form of triangulation whereby data, or the findings they yield, are cross-checked to see if they agree (converge) or disagree (diverge). Where they converge, this lends credibility to the results and validity to the mixed methods design. Dornyei (2007, p. 45) likewise states: "[m]ixed methods research has a unique potential to produce evidence for the validity of research outcomes through convergence and corroboration of the findings". Conversely, where data or results diverge, deeper examination is needed to account for that divergence.

Finally, Dornyei (2007, p. 46) suggests that mixed methods research may appeal to a wider audience. Purely quantitative or qualitative research would not likely persuade a

large majority. However, research using a principled mixed methods design might be more widely received due to its "multiple selling points" (Dornyei, 2007, p. 46).

These are the five justifications offered for the use of a mixed methods design in this study. There is a consensus within the literature however that the mix of data types should be considered and principled, and it is to that issue that I now turn.

4.3.3 Principled mixing of data types

There are then several good reasons for employing multiple data types in a single study. However, rather than employing an indiscriminate selection, Dornyei (2007, pp. 167-168) urges that the mix of data types be *principled*, such that "[the combination's] strengths aggregate, thereby making the sum greater than the parts" or, as Morse & Niehaus (2009, pp. 154) put it: "Mixed methods design is systematic. It is not a salad!!!".

Creswell (2009) expands upon the importance of a principled mix of data types, stating that researchers should also consider and explain the sequencing of data collection and how quantitative and qualitative components are weighted in their contribution to answering the research question(s). He terms the various permutations of sequencing, weighting and mixing "strategies" (ibid., p. 209).

Of Creswell's six mixed methods strategies, this study employs his "convergent parallel mixed method" (2014, p. 220) because quantitative and qualitative data are collected, often concurrently, via the same tools and over an extended period, then analysed separately and compared for their degree of convergence or divergence to assist in interpreting the data. That is, the data are triangulated to check the results generated within and between data collection tools and data types.

An important distinction in this study is that data collection occurs not in a single phase, as Creswell suggests (2009, p. 212), but across three phases over eight weeks (see Chapter 5,

figure 5.1) to examine students' perceptions of the ways in which, and extent to which their EFL knowledge and skills developed during the project period, possibly due to PBLL. This is consistent with collective case studies, described in section 4.4.

Within each data collection tool, the various data types serve specific and complementary functions, each driven by the research question. Table 4.2 below shows that there is some commonality between the various tools used in this study in terms of the data they collect so that responses can be cross-checked, i.e. triangulated, to show how they converge or diverge.

Table 4.2: Summary of data collection tools, data types and functions

Tool	Data type	Collects data on…
Surveys	Quantitative	• participants' pre- and post-project self-evaluations of their EFL macro-skills proficiency and knowledge levels, cognitive skills, course content skills and knowledge, affective variables and related classroom preferences • personal data and prior PBLL experience • presence/absence (and thereby frequency) of EFL learning and related variables
	Qualitative	• comments, reasons or explanations associated with the above quantitative self-evaluations • opinions and perceptions on EFL usage, the PBLL approach, integrated learning, specific classroom and PBLL-related behaviours and miscellaneous related issues • prior PBLL experience • concrete examples of EFL language/content knowledge and/or language skills usage and learning during project-work
Semi-structured interviews	Quantitative	• frequencies with which specific behaviours occurred • quantities such as percentages and time periods
	Qualitative	• prior EFL learning experiences • perceptions and expectations of, and attitudes towards EFL learning • EFL teachers' and students' respective classroom roles • preferences relating to course content, group work, etc. • experiences, advantages and problems with, opinions on, and perceptions of PBLL and related issues

Tool	Data type	Collects data on…
Field observation notes	Quantitative	• frequency of PBLL, EFL and classroom behaviours
	Qualitative	• students' EFL usage to evidence and exemplify learning and/or errors • students' beneficial and adverse EFL- and PBLL-related behaviours • my own actions in class to support individuals or teams in progressing their projects • problems which become apparent during project-work, plus possible causes and solutions • issues to follow-up after class, during interviews or for reflection • miscellaneous other notes
Students' project outputs	Quantitative	• frequency of use of EFL knowledge and/or skills • frequency of error types
	Qualitative	• errors for analysis of EFL knowledge and/or skills used

Having explained the principled rationale underlying my mix of data types, the next section briefly examines the criteria by which the quality of mixed methods research might be evaluated.

4.3.4 Measures of quality in mixed methods inquiry

This chapter has already touched upon design validity in mixed methods research and in this section I outline various measures by which the quality of mixed methods inquiry might be evaluated.

Quantitative and qualitative research each has its own measures of quality but how can they be merged to evaluate mixed methods inquiry? Morse & Niehaus (2009, p. 20) suggest that there is currently no mainstream agreement on this issue. Dornyei (2007, p. 62) agrees, adding that each quantitative and qualitative component should be judged by its own respective "quality principles" (ibid., p. 63), such as those proposed by Brown & Rodgers (2002, p. 243). In their model, quantitative and qualitative inquiry each has its own measures, though there are rough equivalencies. In quantitative research, internal and

external validity equate in qualitative inquiry to 'credibility' and 'transferability' respectively. Similarly, internal and external reliability in quantitative research jointly equate to 'dependability' in qualitative inquiry. Finally, quantitative objectivity equates to qualitative 'confirmability'. It is these that will be applied here to show "fitness-for-purpose" (ibid., p. 63). A more detailed examination of this issue is however beyond the scope of this chapter.

To this might be added qualitative inquiry's 'resonance', loosely equating to quantitative inquiry's 'face validity', whereby a study's results and conclusions "ring true" (Richards, 2003, p. 266) or resonate with those who read them. In this way, qualitative and mixed methods inquiry can reach across contexts to speak to others.

This section has justified this study's use of a mixed methods design. Next I describe and justify my choice of research tradition: the case study.

4.4 Case studies

This investigation is a case study, various definitions of which commonly identify the investigation of a 'case', i.e. an individual, group, institution or community, or a phenomenon such as a "program, event, activity [or] process" (Creswell, 2009, p. 13) within a real-life context as fundamental features (Nunan, 1992, p. 229; Brown & Rodgers, 2002, p. 21; Mackey & Gass, 2005, p. 171). However, Yin's (2009, p. 18) more considered and inclusive definition goes further so will be applied here:

1 A case study is an empirical inquiry that
o investigates a contemporary phenomenon in depth and within its real life context, especially when
o the boundaries between phenomenon and context are not clearly evident…

2 The case study inquiry
o copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
o relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as a result

  o benefits from the prior development of theoretical propositions to guide data collection and analysis.

Of the three types of case study identified by Stake (1995, 2005), Dornyei (2007, p. 152) and Creswell (2013, p. 99), i.e. intrinsic, instrumental and collective, this is a collective case study because it is primarily concerned with investigating a phenomenon, in this case PBLL, across multiple participants. Duff (2006) sees this as advantageous because it overcomes the common problem of losing some participants (or even groups) who may withdraw from the research. Furthermore, Dornyei (2007, p. 155) adds that collective case studies to some extent overcome the "idiosyncratic unpredictability and audience criticality" which can undermine the other two types.

Of the four functions case studies can serve, i.e. exploration, description, prediction and explanation (Yin, 2009, pp. 9-10, 176), this study is exploratory because it asks "What are the perceived EFL learning outcomes associated with PBLL?" within the predetermined setting or "bounded system" (Creswell, 2013, p. 97), in this case a Japanese junior college. It is however also explanatory as it seeks to understand the processes which underlie that learning.

A main challenge in case studies is to identify the cases to be studied and, in common with Duff (2007), this study has several levels of cases:

1. Country (Japan)

2. Institution (a junior college)

3. Subject class groups (one each for Writing, Presentation and Oral English)

4. Project teams (two to four teams per class group)

5. Individual students within each project team (three to four)

This study is primarily concerned with perceptions of language learning through PBLL among individual students and to a lesser extent the three subject groups.

The tradition confers several advantages over other forms of inquiry. A wide variety of data types and data collection tools can be employed to provide in-depth descriptions and understanding of complicated phenomena including human interactions which can resonate with others in similar settings.

Dornyei (2007, p. 155) accepts Duff's (2007) view that properly designed and implemented case studies:

> …display a high degree of completeness, depth of analysis and readability, and they are effective in generating new hypotheses, models, and understanding about the target phenomena. Thus, [case studies are] highly recommended for exploring uncharted territories or making sense of a particularly problematic research area, and it can provide an unparalleled understanding of longitudinal processes.

Advocating case studies, Mackey & Gass (2005, p. 172) similarly note that they "clearly have the potential for rich contextualization that can shed light on the complexities of the second language learning process".

Case studies are commonly criticised for lacking generalisability to wider populations because they do not confer statistical generalisability. However, this may not be, and perhaps should not be the researcher's intention when choosing this tradition. Furthermore, Yin (2009, p. 15) argues that case studies do indeed offer a form of generalisability, but not of the statistical variety applicable to populations but rather "analytical generalization" applicable to "theoretical propositions". That is to say that case studies can advance our knowledge and understanding of a phenomenon to develop and progress related theories, thereby informing and improving pedagogic practice, in this case relating to the PBLL approach.

Given the above, and following Woods' (2001) use of this tradition to examine student accountability in Problem-Based Learning, the case study seems the best suited to examine PBLL *in situ* in response to the call for empirical study of the approach stated in section 3.6. Having justified my choice of a case study for this investigation I now move on to explain the advantages and drawbacks of the four types of data collection tools employed.

4.5 Data collection tools

A researcher's choices of paradigm, design, tradition and tools are driven primarily by the need to collect credible data in sufficient quantity and variety to answer the research question(s) comprehensively. Section 4.3.2 explained that a principled mix of data types is usually needed to answer multi-level or multi-faceted research questions and that employing mixed data types facilitates triangulation which can enhance the validity of both the design and the results.

Employing multiple data collection tools confers identical benefits, albeit at a different level. Gillham (2007, p. 2) writes that "[with] real-life questions…one [tool] is rarely adequate; and if the results of different [tools] converge…then we can have greater confidence in the findings". Similarly, Lazaraton (2005, p. 219) advocates for "combin[ing] qualitative and quantitative research [tools], since each highlights "reality" in a different, yet complementary way". This results in "methodological triangulation" (Brown & Rodgers, 2002, p. 244). Conversely, but equally importantly for a study's credibility and transferability (internal and external validity respectively), the results from one tool can undergo 'cross-examination' by another to check for contradictory data or findings, what Richards (2003, p. 287) terms "negative evidence". Employing multiple tools thereby further reinforces a design already strengthened by the use of mixed data types.

For these reasons surveys, semi-structured interviews, field observation notes and various forms of project output were used as sources of mixed data in this study. However, as with the mix of data types, the mix of tools should also exhibit "complementary strengths and nonoverlapping weaknesses" (Dornyei, 2007, p. 63). In sections 4.5.1 to 4.5.4, I describe in general terms the potential advantages and problems associated with each type of data collection tool and how they meet Dornyei's (ibid.) requirement.

4.5.1 Surveys

Surveys are a commonly used tool in applied linguistics research. They can collect a high volume of responses to specific questions relatively quickly to evidence change over time (Mackey & Gass, 2005, pp. 93-94). Gillham (2007, pp. 5-7) additionally notes that they can gather these data easily, cheaply and, where necessary anonymously. They can also elicit quantitative and/or qualitative data in the form of open and closed questions. Furthermore, since a group of respondents all receive the same instructions and questions at the same time and in the same sequence, there is a high degree of standardisation in implementation and administration, making the items (and thereby also the responses) more reliable (Gillham, 2007, pp. 7-8). The tool also lends itself to relatively convenient data input for analysis (Dornyei, 2007, p. 105; Gillham, 2007, pp. 5-6), which is an important consideration when dealing with very large volumes of data, as with this study. The responses can then be used to examine trends and make comparisons between individuals or groups (Bell, 1993, p. 10).

However, poorly worded items and/or response options may not accurately reflect the researcher's intended meaning, leading to misinterpretation by the respondent (Bell, 1993, pp. 77-78), yielding dubious data. Conversely, participants' qualitative responses may be misinterpreted by the researcher with the same outcome. Furthermore, quantitative items offering discrete response options may not supply the option which best fits a participant's

preferred response. Non-standardised administration may also affect data quality. To mitigate these problems, practical guidelines on survey design and implementation offered by Oppenheim (1992, pp. 5-46, 100-149), Bell (1993, pp. 75-90), Brown & Rodgers (2002, p. 143), Dornyei (2007, pp. 101-115) and Gillham (2007) were applied. These included for example:

1. structuring the survey to make it intuitive to use,

2. providing clear written instructions on how to complete the survey,

3. choosing the most suitable question type, answer format and options for any given item,

4. wording questions carefully to avoid ambiguities,

5. piloting and revising the survey as necessary,

6. explaining the survey's purpose and relevance to the respondents immediately prior to the survey's administration,

7. ensuring anonymity and

8. providing clarification as needed.

Survey data represents participants' self-reported views of variables or phenomena. These may be objective data such as TOEIC scores, or subjective data such as perceptions of classroom events. This subjectivity, together with factual error, fallible memory, ambiguous response wording and even deliberate falsehood can all adversely impact what Edge & Richards (1998, p. 345) term the data's "trustworthiness". Although maintaining participants' confidence in the procedures for ensuring anonymity, described in section 5.3.2, can help to mitigate this to some extent (Gillham, 2007, p. 7), researchers should be aware of the possibility that participants' responses might be incomplete, unrepresentative, misrepresentative or missing entirely when inputting and analysing the data and interpreting the results.

A final potential problem is that respondents might feel intimidated by the researcher's presence, but if s/he gives the participants enough personal space and makes efforts to seem preoccupied with something else, these could mitigate that problem.

These are the potential benefits, problems and solutions associated with using surveys. The following section shows how, when used in tandem with semi-structured interviews, surveys form a strong combination.

4.5.2 Semi-structured interviews

As with surveys, interviews are a well-established form of data collection in applied linguistics research. They offer researchers access to a deeper understanding of informants' experiences, behaviours, preferences, perceptions, histories and much more (Seidman, 2006, pp. 9-10; Weiss, 1994, pp. 1-2). Therefore, as Seidman demonstrates, interviews are not merely another opportunity to ask a sequence of questions: They are a portal through which researchers can access peoples' "stories" (2006, p. 7) and their alternative perspectives. It is also this writer's personal experience both as a researcher and interviewee on several occasions that people can sometimes talk at greater length and more openly, deeply and passionately than they might write. This not only makes interviews a valuable form of data collection in their own right, but also provides overlapping strength when used in tandem with written, short answer surveys. Interview data can of course also be used to corroborate or refute data from other tools.

However, Yin (2009, p. 102) highlights several potential weaknesses associated with interviews which warrant a brief discussion. As with surveys, and despite the interviewer and interviewee being face-to-face, there is still the potential for misunderstanding when questions or responses are poorly phrased, especially in multilingual research, so care must be taken on both sides to express ideas clearly and to seek clarification where necessary.

Response bias is another concern, stemming from people's innate tendency to mesh prior experiences, information and the multiple stimuli of their surroundings, which may result in a consciously or subconsciously inaccurate response, perhaps to save face or to give a perceived preferred answer. The problem can be mitigated by emphasising that there is no right, wrong or preferred answer and by avoiding visual or aural cues indicating that the informant has scored a 'hit'. Finally, inaccurate recall of events may lead informants to give inaccurate responses, but in such cases, all the researcher can realistically do is to treat the response with an appropriate level of caution and try to corroborate or disprove the response through triangulation with data from other sources, as suggested by Weiss (1994, p. 150).

A final consideration is that neither interviewers nor interviewees are entirely neutral. Each has an agenda, the former to work towards completing their research and the latter to present their view or account of the issues raised. Each reacts to and feeds off of the other. Try as one might, an interviewer cannot completely isolate him/herself from the interaction or the information it yields because the interviewer is an intrinsic part of that interaction, without which there would be no interview. This reflexivity means that the information or knowledge gained is not the participant's unadulterated perspective but a complex co-construction between the interviewer and participant (Seidman, 2006, pp. 22-23).

The semi-structured interviews used in this study included the questions shown in appendix 4. Having these predetermined items and prompts available during interviews helps to maintain focus and direction. However, when points of particular interest arise, additional, unscripted, spontaneous questions can be used to explore underlying causes, rationales and motivations in more detail (Oppenheim, 1992, pp. 90-91; Seidman, 2006, pp. 83-84). This flexibility offers researchers and respondents opportunities to branch out

into unexpected but potentially informative areas. This format is therefore sometimes deemed preferable both to a more rigidly structured style, which severely restricts follow-up questions and an unstructured format which risks not touching upon some of the key areas that need to be explored.

Oppenheim (1992, pp. 81-83, 102) demonstrates that the respective strengths and weaknesses of surveys and interviews are almost "mirror-image[s]" of each other and so form a strong pairing. It is worth noting that he compared interviews with postal surveys. Having the researcher present for the administration of the survey, as in this study, overcomes some of the shortcomings of postal surveys, particularly with respect to higher return rates and a greater standardisation of administration and completion. This makes the survey/interview pairing used in this study even stronger than Oppenheim (ibid.) suggested.

Having described the advantages and issues relating to semi-structured interviews and how they complement surveys, the next section describes how this pairing is further complimented by the use of field observation notes.

4.5.3 Field observation notes

While surveys and interviews are undoubtedly useful, they represent students' reports and do not show what students actually do during class project-work. They also provide only a 'snapshot' taken at temporally distant points in the research design, leaving large gaps in the data collection chronology. Ongoing field observation notes recording in real-time what is directly observed during classes can overcome these two overlapping weaknesses by "allow[ing] researchers to see directly what people do without having to rely on what they say they do" (Dornyei, 2007, p. 185). That is, observation can verify or refute respondents' self-reporting. Therefore a form was designed to record real-time

quantitative and qualitative observations on students' classroom behaviours during project sessions (see appendix 5).

Field observation notes confer several benefits. Because they are much more free-form, they can accumulate data "in ways that are not pre-determined or pre-specified" (Emerson, Fretz & Shaw, 1995, pp. 10-11, cited by Emerson, 2007, p. 428). Such notes can enrich a dataset by capturing potentially relevant, useful and interesting but fleeting behaviours, processes, interactions, contributions and other features (Emerson, 2007, p. 428) which might otherwise be lost and which can be followed-up immediately after class or during interviews. They can also record the researcher's/teacher's own impressions of what was observed, as well as their reflections on the implications the notes' contents have for the research study and/or pedagogic practice. Dornyei (2007, p. 160) calls this process "internal dialogue, or thinking aloud". The notes could support or refute self-reported behaviours from surveys or interviews to expand the depth and breadth of understanding, providing a more complete answer to the research question. When a critical mass of field observation notes has accumulated, individual and group behavioural patterns start to emerge from the "fieldnote corpus" (Emerson, 2007, p. 428). Through this corpus, field observation notes meet Morse & Niehaus' (2009, p. 19) requirement for tools to improve "description, understanding, or explanation of the phenomenon under investigation".

However, field observation notes are incomplete, selective and subjective representations of events. They are incomplete because it is impossible to observe everything that happens moment-to-moment in a classroom simultaneously and because one can only note what is directly observable, while other equally noteworthy but abstract or latent phenomena such as participants' underlying rationale or motivations go unseen and unrecorded. Field notes are selective because researchers consciously or subconsciously choose what to note and what to overlook. They are also subjective because observable events are open to multiple

interpretations (Bell, 1993, p. 110) and because any interpretation may itself be flawed due to observer bias or lack of contextual or background information. For this reason, Dornyei (2007, p. 180) refers to field observation notes as "high inference". It therefore seems prudent for researchers using such notes to check their interpretations of classroom events and behaviours with the participants themselves through follow-up discussions, as well as to compare the notes with data from other sources. Design and application of the field observation notes (FON) form are described in sections 5.4.3 and 5.5.2.2 respectively. Next, I briefly describe how students' project outputs were incorporated into the dataset.

4.5.4 Project output

If PBLL supports EFL learning, this should be evident in the teams' project outputs in the form of new or corrected vocabulary, grammar, spelling or pronunciation and developed language micro- and macro-skills. The projects produced various types of output (see Chapter 5, table 5.1 for details). The output's content can sometimes be attributed to individuals where each team member was known to be responsible for a specific part of the output. However this information could not be matched with the survey responses to aid interpretation of those data because the surveys were completed anonymously using the respondent numbering system explained in section 5.5.1.3. They can however be matched with the field observation notes by student name. Since these outputs provide objective evidence of TL knowledge and language skills use, this data source somewhat reduces the study's reliance upon the subjective data reported via the other tools described in this chapter which may still have had residual overlapping weaknesses.

In this section I have justified my choice of data collection tools, explaining the benefits and pitfalls associated with each and suggesting mitigating solutions where possible.

4.6 Positioning the teacher as researcher

In this study, I am both teacher and researcher. The tension that this duality creates warrants a necessarily brief but reflexive discussion here so that the reader can better gauge for themselves how my own prior professional experiences may have influenced the study and thereby the quality of this thesis. This is in line with Doucet & Mauthner (2002, p. 134), Pink (2007, p. 367) and Creswell (2013, pp. 47, 215-217; 2014, p. 186) for what Macbeth refers to as "positional reflexivity" (2001, p. 35). In his view, this is an examination of "place, biography, self and other to understand how they shape the analytic exercise", through which qualitative researchers can be more open, transparent and accountable to their readers. Specifically, Creswell (2013, p. 216) suggests that this reflection examines one's experiences relevant to the subject under investigation, in this case the application of PBLL within EFL courses at a Japanese junior college, and how those experiences may have influenced the study. It should also describe any steps taken to mitigate such influence. Therefore, I will examine how I positioned myself within this study as the teacher-researcher, with particular emphasis on the tension that this duality created and how I attempted to maintain 'distance' between the teacher and researcher roles. Also, I examine how my role as teacher may have affected the students' decision to give their informed consent and their openness in responding during data collection and how that influence was mitigated.

My choice of PBLL was influenced by my experiences with the approach as a teacher rather than as part of an objective research-related rationale. Those experiences have led me to believe that it can be effective in developing the communicative competence that, as established in Chapter 2, Japanese EFL learners generally lack. However, as a researcher, I was seeking to understand the realities of my classroom, to gauge PBLL's efficacy, to familiarise myself with its benefits and pitfalls and thereby to improve professional practice and with it future learning outcomes. However this endeavour made it very likely,

indeed necessary, that its deficiencies would be spotlighted so that they could be remedied or ameliorated.

The researcher's function in this investigation was to study PBLL in support of the teacher, who in turn teaches to support the students' learning. The issue of 'distance' here relates to ensuring that the vested interests of the teacher did not encroach upon the researcher's capacity to fulfil the research function objectively, so that the latter could operate independently of the former or at least as much as possible when the two roles are undertaken by a single person. This distance could be threatened during data collection, coding or interpretation.

To maintain that distance during data collection, I worded the survey, Students' Project Activities (SPA) form and interview items as neutrally as possible through piloting (see section 5.4.2). At the start of data collection sessions I also made it clear that there were no right or wrong answers and that the respondents' frank views would be the best data they could provide. Writing the field observation notes required snap judgements on my part as to what was or was not noteworthy, but I tried as much as possible to observe and note as objectively as I could both positive and negative events, behaviours and outcomes, given the necessity to simultaneously conduct a lesson in progress.

To maintain appropriate distance during coding, interpretation and discussion of the results and related conclusions, I had to view the data and results clinically and dispassionately. "Don't take this response personally." and "What did this participant most likely mean?" became my mantras during coding and the writing up of this thesis. Throughout the research process I constantly reflected upon, and tried to find alternative explanations and interpretations for the data from the viewpoints of teacher, researcher and student.

With respect to how my dual role affected the participants, I explained to them at the informed consent stage that I was researching PBLL because I wanted to learn more about it. I emphasised that their formative feedback, positive or negative, would help me to more effectively implement the approach; that their comments had no effect on their grades; that their responses would help future students, if not also themselves; and that such inquiry is one of the ways in which we grow as professionals.

However, the participants almost certainly still viewed me as their teacher rather than as an impartial researcher and this may have influenced both their decision to give their informed consent and how they responded to interview and survey items during the study. I attempted to mitigate this influence in three ways. Firstly, I took overt steps to maintain respondents' anonymity, as described in section 5.3.2. Secondly, I took care to avoid biased wording or body language during interactions. Thirdly, I invested time and effort in developing and maintaining a viable working relationship with these students within and beyond the classroom prior to, during and after the study: one based on trust, openness and mutual respect for the views of others. This is how I usually conduct myself as a teacher, which hopefully served to encourage the students to participate voluntarily and to respond openly during the study. My statement to students that both positive and negative comments would be useful was intended both to give the students license to negatively critique the PBLL approach and related issues as necessary without fear of punitive consequences and to transform the study into a collaborative exercise.

While I have attempted to manage the teacher-researcher duality objectively and to investigate PBLL through the eyes of a removed researcher, it is unavoidable that to some extent this thesis has passed through the filtering lens of the teacher. I cannot claim an absolutely unbiased stance or to not have influenced the participants through verbal or nonverbal cues, but I consciously adopted as many measures as possible to mitigate any

bias. To do otherwise would have negated the very purpose of the study and all the work that has gone into it. Ultimately though, it is for the reader to decide the extent to which I succeeded in this endeavour. I will conclude this chapter with a brief discussion of issues pertaining to translation in multilingual research.

4.7 Translation in multilingual research

When conducting multilingual research crossing the researcher's and participants' cultural-linguistic boundaries there is a risk that information given by one party may become coloured through the other's own cultural-linguistic lens such that the information is misinterpreted, obscured or lost. Research conducted by Jagosh & Boudreau (2009) in the field of medicine exemplifies how easily differences in the meaning of terms in the researcher's and participants' languages can cause problems for a study. Furthermore, Oppenheim (1992, p. 184) warns that "[t]ranslation can subtly alter the meanings and overtones of an attitude statement". As Attia (2011) points out, researchers conducting any investigation across languages and cultures are required to "negotiate and interpret linguistic and cultural meaning in their data - whether dialogic, observational, textual, or mediated". Similarly, Temple & Young (2004, p. 170) suggest that researchers "reflexively debate with the translator the choices they [have] to make in producing written text".

So, it is important to record what participants say and do as fully and accurately as is practicably possible to avoid loss or corruption of meaning (Spradley, 1980, p. 67) and for the same reason, where necessary, to translate and transcribe textual data as soon after the event as practicable, while memories are still relatively fresh. Such has been the challenge in this study. Fortunately, access to the participants after class, on campus and during the post-project interviews provided opportunities to seek clarification from many of the participants. Furthermore, a highly experienced, well-respected and fully bilingual

Japanese translator was available to work through the many linguistic and cultural minutiae involved in translating the various surveys and forms into Japanese and later the participants' responses into English. Despite this however, it must be conceded that even with the most rigorous translation and transcription protocols, as Halai (2007, p. 353) warns, "inevitably, a part of the richness, meaning, and cultural flavor [will be] lost in translation".

In this chapter I have defined the various terms used to describe this study's research rationale and defended my choice of research paradigm, design, tradition and data collection tools. These choices were seen as providing a suitable framework within which to investigate the research question posed in Chapter 1, taking into account the real-world setting in which the study was conducted. I have also reflected upon the teacher-researcher duality and the difficulties inherent in multilingual research. I now turn to an explanation of the research methodology.

Chapter 5: Research Methodology

As explained in Chapter 1, this study examines the research question:

What are the perceived English language learning outcomes associated with Project-Based Language Learning when applied to a Japanese junior college's EFL courses?

In this chapter I describe how the study's dataset was collected in order to answer this question. While Chapter 2 set out the general and EFL educational contexts within Japan, section 5.1 describes the specific institutional setting within which the data were collected. Section 5.2 then describes the participants who provided the data. After considering relevant ethical practice in section 5.3, the development of the research materials and supporting documentation used in the study are detailed in section 5.4. Section 5.5 then describes the procedures through which they were deployed. Finally, section 5.6 sets out how the qualitative data were translated and transcribed. An explanation of how the data were then organised, 'cleaned' and coded ready for analysis is provided separately in Chapter 6.

5.1 Research setting

The choice of research setting in this study was determined by certain pragmatic requirements. The first was the need to be able to collect data in line with the overall research design and procedures in order to adequately answer the research question. If data collection had been interrupted, for example by sporadic access, it could have adversely affected my capacity to collect sufficient data to answer the research question. Another pragmatic requirement was the need to be able to design and implement the syllabi myself in order to integrate project-work into the courses of study and to make decisions relating

to content, scheduling and data collection. In short, it was necessary to situate the research within my own courses.

As the research was data-driven, I initially collected far more data than needed or was manageable even for a doctoral thesis. I therefore refined the focus and narrowed the dataset as data collection and analysis proceeded. This meant that data pertaining to a second project, completed in the latter half of the semester were excluded, as were data collected at a separate institution. This left data relating to one round of projects conducted within a junior college but with three different groups described in the following section. It was felt that the narrower focus would allow for a better understanding of PBLL in that particular context.

Therefore the data used here were collected from the Department of English Communication at a two-year junior college in Japan. As a small private institution of around 1,200 students, the college is almost completely privately funded, receiving only a small subsidy from the central government, meaning that its resources are limited. The department's EFL courses could be described as low-level and more practical than academic in nature, with opportunities for attaining related vocational qualifications integrated into the curriculum. Students usually enter the college directly from high school at age 18 (figure 2.1).

5.2 Participants

In relation to this research, the terms participant(s), student(s), informant(s) and respondent(s) are used interchangeably depending upon the context. All of the courses described below ran in the first semester of the 2011-2012 academic year.

Participants were on one of three one-semester long courses: Writing (W) for sophomores ($n=13$), Presentation (P) for sophomores ($n=9$) or Oral English (OE) for freshmen ($n=6$).

Thus there were 28 participants in all, three male, 25 female with a mean age of 19 years (SD=7 months). Since these were students on my own courses, the study used convenience sampling for data collection.

The Writing and Oral English groups had two 90-minute lessons per week for 15 weeks, totalling 45 contact hours, while the Presentation group had one 90-minute lesson per week for 15 weeks, totalling 22.5 contact hours. The courses were not streamed and included students of mixed abilities which by the end of the semester I subjectively assessed to range from elementary to low intermediate with respect to overall English proficiency.

The pre-project interviews described in sections 5.4.4 and 5.5.2.1 revealed that the eight interviewees had had quite similar prior school EFL learning experiences in that their English classes had focussed very heavily, though to varying degrees, on "grammar", "vocabulary", "reading", "writing" or "pronunciation", that they were conducted predominantly in Japanese and that they were very strongly teacher-centred. The following two excerpts were translated from the original in Japanese, as were most of the qualitative data presented in this study:

> Makoto: In junior and senior high school English lessons, only teachers talked during the lessons and students could not even ask questions…Writing in English lessons every day.

> Sayaka: Basically in high school we just sat at our desks and we copied what the teacher wrote on the board. When we were asked to read, we did. That was the routine. We were just writing, so we could not remember anything. That's how we studied.

Also, in the OE group, from two students who attended the same senior high school:

> Azusa: We studied pronunciation by repeating what the teacher said.

Ayaka: The teacher didn't correct our pronunciation.

Finally, this exchange (in English) from the Presentation group:

Sao: When I'm high school student, class is keep writing, look at blackboard all time.

Paul: So reading from the board, reading from the textbook?

S: Yes.

P: And did you do any writing?

S: Hmm study grammar.

P: Grammar. OK.

S: Yes.

P: OK. Vocabulary?

S: Vocabulary.

P: Mainly vocabulary and grammar?

S: Yes.

P: What about speaking and listening? Did you practice speaking and listening?

S: Not study speaking.

P: No.

S: No. Sometimes listening.

P: To a CD?

S: Yes.

P: OK. Did your Japanese English teacher speak in English during the lesson or Japanese? How much?

S: Mainly in Japanese.

These excerpts seem to be very much in line with the characteristics of grammar translation presented in table 3.1.

It cannot be said categorically that the prior EFL learning experiences of these eight informants are representative of the wider sample of 28 participants, but it does seem quite likely for two reasons. Firstly, the participants in this study were almost all long-time local residents, so some of them likely lived in the same catchment areas and therefore went to the same schools, or at least studied at schools in the same city and which therefore adhered to the same municipal and prefectural EFL education policies. Secondly, the problems within Japan's EFL education system which led to the above scenario are derived from policies, content and learning objective guidelines and teaching materials mandated by central government (see Chapter 2), therefore it is likely that a similar scenario played out across the country among other public schools, not just in the city where this institution is located.

The teaching paradigm that the students described above tended to change occasionally when a native English speaking ALT team-taught English lessons with the JTE. In those lessons "speaking", "listening", "games" and "daily conversation" became more prevalent, as these statements from the pre-project interviews show:

Sayaka (W): ALT teacher did speaking activities.

Ayaka (OE): Basically we practiced daily conversation.

Sao (P) (in English): When we had the ALT, not study grammar and vocabulary. Speaking and listening.

However, these ALT lessons focusing on oral and aural skills were relatively rare, ranging from twice a week to not at all in some cases and despite them, these students' overall school EFL education seems to have done little to develop their English speaking

proficiency. This is important because PBLL requires students to produce an end product in English by working through the creative process with team members in English. Low English speaking proficiency may adversely impact the amount of spoken English that students produce and thereby the magnitude of any actual or perceived EFL learning outcomes.

Finally, item 39 on the pre-project survey (described in section 5.4.2.1) asked the students about their exposure to PBLL. It revealed that of the 26 responses, only six participants had previously conducted project-work in EFL classes and that of those, only one reported that English had been used during the project itself to create the output. The other five had used Japanese to make the English language end product. Therefore, for the large majority of participants in this study, PBLL was a novel approach.

5.3 Ethics

Ethical practice in research is a cornerstone of modern civilised society resulting from the Nuremburg Code of 1949 (Mackey & Gass, 2005, p. 26). Without it, physical, psychological, academic, social or financial harm might be done, deliberately or otherwise to individuals or groups participating in research. For example, with respect to the current research, teachers, especially dissertation supervisors, hold positions of power. If a student were identified as comparing one teacher unfavourably with another, that student might suffer punitive consequences.

Therefore an important first step in any research in which people are participating is to consider the potential for harm that might occur either from the research procedures or distribution of subsequently published materials and to resolve how such risks that might exist can be eliminated or at the very least minimised. To that end, and in line with Aston University's regulations, I conducted and submitted a risk assessment to the university and

obtained ethical approval from Aston University's Ethics Committee prior to commencing the study. The following procedures were used to limit potential harm through informed consent and measures taken to ensure anonymity.

5.3.1 Informed consent

When inviting people to participate in a research project, ethical practice requires not only that they give their consent but that that consent be *informed*. In other words the researcher is obliged, within the limits of the purpose of the research, to provide certain information about that research and the participant's role in it, so that they can make a considered decision as to whether or not to participate. A consent form was prepared in English and then translated into Japanese (see appendix 6). Its administration is described in section 5.5.1.2.

5.3.2 Ensuring anonymity and confidentiality

One determinant of the extent to which a study contributes to the field is the degree to which its dataset can be relied on to reflect reality and hence the veracity of the conclusions that are drawn from it (Edge & Richards, 1998). Conclusions drawn from results derived from dubious data are themselves questionable. Therefore, all reasonable steps should be taken to encourage participants to respond as openly and frankly as possible when self-reporting, so that the data is credible.

One way to encourage reliable self-reporting is to ensure that respondents feel that they can answer openly, without prejudice or fear of punitive consequences. One way to achieve this is to protect their anonymity (Rozakis, 1999, p. 56). Since this study makes extensive use of self-reported survey and interview data, this was a key requirement. To this end, and following Oppenheim (1992, p. 265), each student was assigned a unique

'respondent number' using the procedure described in section 5.5.1.3. Furthermore, pseudonyms are used in all transcripts.

5.4 Materials' development

As mentioned in section 5.3.2, the value of any empirical research rests in large part upon the quality of the data its conclusions are based upon, so developing suitable data collection tools and supporting materials was a key stage in the study. This section explains the development of those materials, while section 5.5 describes how each was implemented in line with the research design.

5.4.1 Introductory materials, project briefs and samples

Section 3.2.5 highlighted the importance of clearly introducing the project's general theme through schema-activating activities which facilitate the sharing of existing knowledge among students and the teacher and provide new knowledge useful to them during the project. It also noted that a project brief formalises and gives structure to the project and that a model of acceptable output gives students an idea of what to aim for.

Following guidelines for PBLL implementation offered by Dooly (2008) and others already reviewed in section 3.2, an introductory worksheet, project brief and sample output were developed for each project. An example of the introductory worksheet for the OE group is provided in appendix 2. Each course group had a different project and the briefs for all three are provided in appendix 3. These contained all the elements identified in section 3.2.5 as useful to students in explaining the project.

All three groups had enough contact time in the course for two projects. However, as explained in section 5.1, only the data relating to project 1 was used in this study. Table 5.1 shows the project title, assignment, type and end products for each group.

Table 5.1: Projects' titles, assignments, types and end products by group

Subject area	Project title: Assignment (Type)	End products
Writing	Live news report: Write an original news story of the team's choice for a short news broadcast. (Production project)	• News story video • Scripts • Photographs
Oral English	Television infomercial video: Write and perform a two-minute long television infomercial to advise viewers on one of the following: leisure activities, health or fashion. (Production project)	• TV infomercial video • Scripts • Photographs
Presentation	PowerPoint presentation: Give a five-minute group PowerPoint presentation on a topic of the team's choice. (Information and research project)	• PowerPoint slides • Scripts • Video recordings

5.4.2 Surveys

With 28 participants in the study, it was not practicable to conduct individual face-to-face surveys and follow-up interviews with every student. Therefore, for reasons set out in section 4.3.3, I decided to use surveys as a mixed methods (i.e. mixed data types) data collection tool for all participants in tandem with interviews with a small number of respondents. Three different surveys were used: the pre-project survey explained in section 5.4.2.1, the post-project survey described in section 5.4.2.2 and a Students' Project Activities form, administered immediately after every project session, explained in section 5.4.2.3. Details on how and when these forms were administered are set out in these sections and illustrated in figure 5.1.

The surveys were first drafted in English then piloted with native English-speaking EFL teachers and edited as necessary. They were then translated into Japanese by a

professional translator to make the form more easily comprehensible to the participants. The Japanese versions were then trialled with members of the Japanese pilot group consisting of six students from a separate department at the junior college but not otherwise participating in this study. This fulfilled Dornyei's (2007, p. 112) requirement that the pilot group be similar to the research participants. The purpose of the content was explained in detail to the Japanese pilot group and the wording checked for typographical errors, wording issues, comprehensibility, functionality and ambiguity. Following Temple & Young (2004, p. 170), the pilot group's suggested revisions were taken back to the translator and the final Japanese version was negotiated. Temple & Young (2004, p. 173) write that "the translator makes assumptions about meaning equivalence that make her an analyst and cultural broker as much as a translator". This seemed to be the case in this study. While we were negotiating the revisions to the surveys, these functions became apparent as we discussed how best to phrase the questions to most accurately convey the intended nuance to the Japanese participants.

To maintain anonymity and to aid analysis, at the top of the surveys and SPA forms, there was a space provided for students to write the date, their group designation (W, P or OE) and individual respondent number rather than their name. (The purpose and use of respondent numbers are explained in section 5.5.1.3.)

5.4.2.1 Pre-project survey

The pre-project survey (appendix 7) was administered to all participants at the start of the semester prior to any project-work. Its function was to serve as a baseline measure of participants' self-reported evaluations in the EFL skills and knowledge domains stated below. When compared to their responses on the post-project survey administered after the project, this would facilitate analysis of any perceived changes in self-evaluations over

time which might in part be due to the processes involved in working through their PBLL projects in the TL.

Part 1 of the survey related to participants' knowledge of English grammar, vocabulary, spelling and pronunciation and proficiency in speaking, listening, reading and writing (items 1-8 respectively), all of which are central to this study. Items 9-15 related to cognitive skills and item 16 to content knowledge. Since each subject group had different course content, item 16 was written as a bespoke item containing different content for each group. Part 2 (items 17-27) examined several affective variables relating to students' perceptions of English, while part 3 (items 28-35) pertained to students' miscellaneous preferences relating to strategies for negotiation of meaning, study grouping, Japanese versus English use and role responsibilities. Finally, part 4 (items 36-39) collected information on students' age, gender, TOEIC score and prior PBLL experiences. Many of these 39 items were originally selected because they relate to areas which literature commonly reports are enhanced through PBLL (Stoller, 2006, p. 25, table 3.3) or which may affect the extent to which participants engage with PBLL and how they evaluate it (Eyring, 1989; Beckett, 1999; Peterson, 2008). However, as the study progressed, it became apparent that this cast too wide a net even for a doctoral study, so it was decided to focus primarily on the students' perceptions of their EFL knowledge learning and skills development (items 1-8), with a few other questions such as item 29 (preferred EFL study mode) providing a supporting role to help explain the primary results.

Finally, this pre-project survey gave students a chance to reflect upon their EFL knowledge learning and skills development to date and to consider which areas needed more attention.

5.4.2.2 Post-project survey

The post-project survey (appendix 8) was administered eight weeks later upon completion of project 1 (hereafter 'the project') at the semester's midpoint. Parts 1-3 remained essentially unchanged from those of the pre-project survey described in the previous section so as to provide matched pair measures, analysis of which would indicate whether the participants' quantitative responses had changed during the project. It was hoped that the associated pre- and post-project qualitative comments might also provide useful insights. Part 4 was changed from 'Personal information' to 'About learning English through project-work' (items 33-53). This examined students' views on a range of PBLL-related issues based on their experiences with the project. These were included in the survey initially with the intention of collecting data on how students used and evaluated their project and the PBLL approach. While this line of inquiry was eventually excluded from the study for practical reasons, the items did yield some useful data relating to the students' perceived EFL language learning outcomes.

In line with step ten of Stoller's (2005) framework for project implementation outlined in section 3.2.4, answering the post-project survey gave students a chance to reflect on their individual learning outcomes from the project.

5.4.2.3 Students' Project Activities form

The pre- and post-project surveys collected data to show perceived changes in key learning areas over the duration of the project. However, another form was needed to investigate, evidence and exemplify what students were doing and learning *during* the time allocated to project-work in each lesson, hereafter referred to as the 'project session'. The Students' Project Activities or SPA form was developed to meet this need. English and Japanese versions of the SPA form are provided in appendix 9.

The form was designed to be quickly and easily completed by participants in the last few minutes of each lesson while the project session was still fresh in their minds. The form used 16 quantitative tick response items and seven qualitative follow-up exemplification request items to collect data relating to TL knowledge and macro-skills domains, as well as to strategies and behaviours such as L1/L2 use and modes of study, which might affect their actual or perceived EFL learning outcomes. As with the pre- and post-project surveys, those items relating to course content (items 5 and 6) were written as bespoke items specific to each subject. The data which accumulated over time for each individual, subject group and the whole sample could help to build up a picture of classroom behaviours and perceived EFL learning outcomes associated with specific project sessions and the project as a whole.

Administering the SPA form at the end of each project session also served a useful secondary function as a source of what Hughes (1989, p. 2) calls "beneficial backwash" to students. By completing the form, they might better notice, and thereby reinforce, the TL items they met and the EFL skills or beneficial study behaviours they used during the session. This act of noticing has been shown to aid learning (Schmidt & Frota, 1986, cited in Mackey & Gass, 2005, p. 177). The SPA form also fulfilled Stoller's (2005) step ten requiring reflection, but at the end of each project session rather than at the end of the project itself.

Thus, while the pre- and post-project surveys facilitated analysis of perceived change over time, the SPA forms provided quantitative and qualitative data on behaviours during each project session. Section 5.5.2 describes the procedure for administering the SPA forms.

5.4.3 Field observation notes

In section 4.5.3, I described how field observation notes can expand and confirm (or refute) data from other sources and other methods through direct observation of what

happens in the research setting. In this study the field observation notes did not focus on any predetermined behaviours or issues but were deliberately kept completely open to examine and understand any events or behaviours that might seem useful in answering the research question. Examples included issues relating to L1/L2 use, examples of apparent learning, beneficial or adverse study behaviours and problems that arose, along with possible causes and potential solutions.

A simple but functional form used to record my field observation notes was designed, piloted and refined during the first week of the semester when course orientation lessons where conducted but no project-work occurred. The piloting period was also useful in that it helped me to notice that writing field observation notes had to be done quickly and therefore concisely, yet in a way that would be comprehensible later during review. A blank copy of the form is provided in appendix 5.

5.4.4 Semi-structured interviews' guides

For the reasons explained in section 4.5.2, this study used semi-structured interviews. Weiss (1994, p. 48) and Seidman (2006, p. 91) suggest that prior to such interviews the researcher prepares an "interview guide", i.e. a list of questions, discussion points or prompts used by the researcher as an *aide memoire* during interviews to provide some degree of structure, direction and standardisation of wording. Those for the pre- and post-project interviews are provided in appendix 4. Section 5.5.2 describes how the interviews were conducted.

In broad terms, the pre-project interviews aimed to learn more about the respondents' prior EFL learning experiences and other related issues, while the post-project interviews explored the informants' views on, and experiences with various aspects of the PBLL approach. A more in-depth discussion of the informants' responses to the themes is provided in Chapters 7 and 8.

5.4.5 Project outputs

Section 4.5.4 highlighted the projects' end products created by the students as another source of data on their projects' possible language learning outcomes. The outputs generated by each project are shown in table 5.1. During the lessons, students sometimes showed a gap in their English knowledge or skills. Where instruction was given to address these gaps and that knowledge or skill was subsequently seen to be applied in a project output, its expression suggests (though does not prove) learning through the project. Conversely, persistent language errors in an output would suggest that learning did not occur. Project outputs were therefore used as a source of data in answering the research question.

5.4.6 Justifications for rejecting pre-/post-project testing

One apparently simple way to establish the *actual* learning outcomes associated with PBLL would be to conduct quasi-experimental pre-/post-project language tests to measure students' attainment of the TL knowledge and development of TL skills incorporated into the project, as in Simpson (2011). Students' matched pair scores could then be compared and higher post-course scores would evidence actual learning due to PBLL. However, the use of such tests was rejected for two reasons.

Firstly, there is the issue of whether it is appropriate or even possible to develop a valid and reliable discrete item or indirect test to measure L2 knowledge gains or skills development which in reality are used in highly unpredictable and synergic combinations. Discrete point testing tends to measure a phenomenon indirectly (Hughes, 1989, p. 17; Bachman, 1990, p. 34) and indirect tests lack authenticity and measure only the knowledge underlying the target skill rather than the skill itself (Hughes, 1989, p. 15; Bachman, 1990, p. 34) and are therefore invalid.

Integrative testing tends to measure directly, so seems more appealing but even here there are problems. For an integrative test to be valid, it must allow for spontaneous, natural, synergistic, i.e. integrated use of language knowledge and skills, from one moment to the next (McNamara, 2000, p. 133). However, this freedom makes it very difficult, perhaps impossible to predict which TL knowledge or skills will be exhibited and which will not. For example, this study's Presentation course covered language for clarification requests during question and answer sessions, but if no need arises for the presenter to seek clarification from the questioner, that language is not elicited, even though it might be available to the student if needed. So with integrative testing, it is not possible to know how much a student has actually attained or mastered merely by observing performance.

Secondly, even if such a test *could* be developed, and if the post-project test scores were statistically significantly higher than those of the matched pre-project test, as in Simpson (2011), this would not evidence a causal relationship between the increased scores and the project-work because, given the nature of this case study, it was not possible to control for the numerous confounding variables within and beyond the class and campus over the eight-week research period.

Petersen (2008, p. 117) acknowledges the methodological difficulties of quasi-experimentally demonstrating actual language gains attributable directly to PBLL. The use of such tests was therefore rejected and the alternative tools mentioned in this section were used instead to ascertain changes in *perceived* learning.

5.5 Procedures

The various supporting materials and data collection tools detailed in section 5.4 were administered using the following procedures. The administrative procedures, outlined in

section 5.5.1, deal with the administration needed to conduct the research, while those described in section 5.5.2 were used to collect data.

5.5.1 Administrative procedures

Before the project-work could begin, certain administrative procedures had to be completed so that the research design could be applied. These consisted of explaining the syllabus, administering the informed consent form and allocating participants' respondent numbers.

5.5.1.1 Syllabi

To collect data on PBLL's reported learning outcomes, the research design shown in figure 5.1 needed to be overlaid on to, and synchronised with each course's project-work as scheduled in the syllabus. The two were therefore drafted and refined concurrently until this was achieved. The OE group's syllabus is provided in appendix 10 as an example.

I selected the content, sequencing and materials based on the anticipated learning needs, English proficiency, interests and content knowledge of the participating students, as well as feedback from other students who had taken these same courses previously.

At the start of the first lesson for each course, I gave all students a copy of that course's syllabus, which was written in English but explained verbally in Japanese to maximise comprehension. Though this deprived them of an opportunity for TL listening, some parts of the syllabus related to course assessment, and in line with good ethical practice these needed to be understood clearly by all students, so their L1 was used. The students were then given a few minutes to check the contents with classmates and to seek clarification from myself if needed.

5.5.1.2 Informed consent

All students were then given a copy of the Japanese version of the informed consent form. For the same reason given above, its purpose was explained in Japanese and the students were given time to read it carefully, to decide whether or not they would consent to participate in the study and to indicate their decision by either signing and dating the form or by leaving those lines blank to indicate non-participation. To avoid students feeling coerced into participating it was emphasised that the research was in no way linked to their course grade. Participants were also informed that they could opt out without prejudice and that should they choose to opt in, all data would be anonymised by the use of pseudonyms. All students opted in and returned their signed informed consent forms via an A4 envelope at the front of the class to be collected by myself later. This method of return was also used for surveys throughout the study to ensure anonymity.

5.5.1.3 Respondent numbers

To maintain anonymity throughout the research period, each participant took a unique respondent number out of a bag. This was then used as an anonymous identifier rather than the student's name or their university student identification number when completing the pre-/post-project surveys and SPA forms. In addition to ensuring anonymity, when used in combination with the date and group designations at the top of surveys, it meant that data could be organized and analysed chronologically, by course group or individual participant to examine trends as needed.

Table 5.2 shows the range of respondent numbers for each course. Most ran consecutively within each group, but a few students were absent from their first lesson so took their respondent number in the next lesson, which explains why 132-134 are non-consecutive. Informed consent was obtained from these absentees using the same procedure described above.

Table 5.2: Respondent numbers for each group

Group	Respondent numbers
Writing	107-118, 132
Presentation	119-125,133-134
Oral English	126-131

In later chapters, these numbers are combined with group labels, for example OE126, so that the reader can understand which group each individual was in.

In the first lesson for each course, I also asked for three volunteer interviewees from each group. Three came forward for the Writing and Presentation groups ($n=13$ and $n=9$ respectively), and two for the Oral English group ($n=6$). Meeting times and places were arranged for each interview prior to the next lesson when the project-work would start. After this first lesson, the research design proceeded as described in the following section.

5.5.2 Data collection procedures

Data collection was divided into three phases: pre-project, ongoing during the project and post-project, as shown in figure 5.1 below.

5.5.2.1 Pre-project data collection

Initial data collection involved the administration of the pre-project interviews and pre-project survey. The interviews were conducted between the first and second lesson of each course. A complete English transcript of the OE group's pre-project interview is provided in appendix 11 to exemplify the content and transcription coding used.

The standardised interview protocol shown in appendix 12 was used to prepare respondents before starting each interview. Information and instructions were given in Japanese or comprehensible English to maximise understanding.

Figure 5.1: Research design showing data collection activities and timeline

Research period of eight weeks

Pre-project research activities	**Ongoing**	**Post-project research activities**	**Post-data collection**
1. Syllabi distributed, explained and clarified.	1. Researcher field observation notes taken throughout the research period.	1. The project outputs listed in table 5.1 were collected.	1. Qualitative data translation and transcription
2. Consent forms distributed, signed and returned.	2. Participants complete an SPA form at the end of each project session.	2. Survey administered to measure post-project, self-assessed English language knowledge and skills levels.	2. Data input
3. Respondent numbers assigned anonymously.			3. Data organisation, cleaning and coding
4. Pre-project interviews conducted.		3. Post-project interviews conducted.	
5. Survey administered to measure pre-project, self-assessed English language knowledge and skills levels.			4. Data analysis via SPSS and NVivo software
6. Project briefs distributed and explained.			

The protocol offered some degree of consistency in administration of interviews between groups and between pre-project and post-project interviews. Following Oppenheim (1992, p. 67), Weiss (1994, p. 54) and Seidman (2006, p. 114), the interviews were recorded, in this case with an iPod which gave very high quality, digital recordings, making it easy to hear informants clearly on playback.

The interviews lasted between 15 and 22 minutes, which is well within the one hour limit recommended by Weiss (1994, pp. 56-57) and the 90 minutes suggested by Seidman (2006, pp. 20-21). Immediately after each interview the iPod recording was uploaded to a computer as an audio file for later translation and transcription (see section 5.6).

At the end of each interview, every informant was given a token gratuity of 1,000 yen (worth approximately £5 at that time). The decision to offer this payment was made because in Japan it is customary to show appreciation for the efforts made by others on your behalf by offering them a small but tangible and useful gift. Oppenheim (1992, p. 104), Weiss (1994, p. 58) and Seidman (2006, p. 73) suggest that small token remunerations like this can encourage participation, with Weiss (ibid.) and Seidman (ibid.) adding that informants participate more for altruistic reasons than for financial gain. This view is supported by the fact that the informants volunteered their time for the pre-project interviews without foreknowledge that there would be any remuneration.

In each course's second lesson, the pre-project survey was administered using the standardised survey protocol provided in appendix 13 which again offered some consistency in administration between groups and measures. It was explained that completing the survey thoughtfully would help them to think about their English language learning strengths, weaknesses and development and that in this way the research could have a positive impact (backwash) on their EFL language learning. It was intended that this feature would make the form intrinsically more relevant and interesting to the

participants and thereby enhance the rate and depth of response (Oppenheim, 1992, p. 105; Gillham, 2007, p. 9). Following Beckett (1999, pp. 94-95), informants where told that they could write responses in Japanese if they preferred so that they could express themselves more clearly and fully. Clarification was provided as needed and participants completed their forms individually during class time. Though this took some contact time from the course it was justified to students on the basis that reflecting upon their current levels and areas of weakness and improvement at the start of the course would help them to focus their studies in areas where they were weakest. Students seemed to accept this justification and perhaps for this reason, the various data collection activities required during the study did not seem to be a burden to them. To avoid intimidating the students with my presence while they completed their surveys, I made a point of staying at the front of the class where I could not see their responses, and also seeming to busy myself with work while still remaining vigilant for anyone needing clarification.

5.5.2.2 The PBLL lessons and ongoing data collection

With the baseline pre-project data collection completed, the projects could begin. However, since the students had reported via their pre-project surveys that almost none of them had previously experienced the PBLL approach, I first needed to frame the projects by introducing and explaining the approach itself. I did this in the next lesson in general terms first by outlining how a PBLL project proceeds and then by pointing out the educational (linguistic and content), cognitive and social benefits that the PBLL-related literature has reported (Stoller, 2006, p. 25). I also highlighted how such projects might work towards each course's main learning objectives of improving their EFL knowledge and discourse skills.

The project-specific introductory materials explained in section 5.4.1 and exemplified in appendix 2, were then used to introduce the general theme for each group's subject-specific project and to elicit related TL and topic-related knowledge.

In the next lesson, the project briefs were distributed to participants and used to explain the various information which they would need to complete their projects, in line with design guidelines explained in section 3.2.4. Students were given a few minutes to absorb the information, confer with peers and to ask questions if necessary. They then decided their project teams and commenced their projects.

Over the next eight weeks, approximately the first half of each lesson, i.e. around 45 minutes, was used for teacher-fronted instruction of course content and the second half for student-directed project-work. For the slightly more advanced second year Writing and Presentation groups, course content was more heavily weighted towards improving discourse level skills, for example learning and practicing various textual discourse patterns including the problem-solution, claim-counterclaim, chronological and general-specific patterns. Related English grammatical forms, phrases and vocabulary items were also covered in synchronicity with this content, for example "While some students like the refectory's food, others do not" to show contrasting views. The lower level first year Oral English group's course content was weighted more towards the consolidation of basic grammatical forms and vocabulary. This instruction phase can be characterised as focussed on forms since the aim was for students to learn and practice discrete EFL points rather than to use the TL for meaningful communication.

The latter half of each lesson was devoted to group project-work. This phase can be characterised as focussed on form (Long, 1988, 1991), (as opposed to focus on form**s**), since it required students to "[attend] to linguistic elements as they arise incidentally" during discussions to advance their team's response to the project assignment, where the

"overriding focus is on meaning or communication' (Long, 1991, pp. 45–6). Since the projects required the students to apply much of their course content in response to the project brief, the instruction phase worked towards course learning objectives whilst also supporting the students in their project-work.

Goal-setting has been shown to aid task management, satisfaction and motivation (Locke & Latham, 2002). Therefore, at the start of each project session, I stated the objective(s) for that session, for example, "By the end of this session you should have completed step five: Discuss and decide the infomercial's contents". This helped to keep the students on track to finish their projects by the middle of the semester.

In line with good PBLL practice proposed by Wilhelm (1999) and Fried-Booth (2002, pp. 18-19), it was necessary for me to take various roles to assist the students and facilitate their project-work. These could be loosely categorised as EFL teacher, project manager and Information Technology (IT) support. As an EFL teacher I monitored individual, team and class progress during sessions and when necessary intervened to ensure that they remained on topic, on task and used English as much as possible. I also answered students' questions relating to English and topical content, offered corrective feedback where needed and suggested additional topical content, lines of inquiry or relevant information sources where appropriate. As drafts of their scripts took shape, I also highlighted the strengths and deficiencies in their writing, aiming to raise their awareness of the need to analyse their own writing more critically.

As a project manager I had to ensure that project teams met each session's objective(s) where possible so that they would complete the project in eight weeks. Occasionally a team would not be able to make good progress because only one member had the most recent version of the project file(s) and that student would be absent, so sometimes I had to reiterate the need for students to attend regularly, participate actively and share

information promptly to keep the projects moving forward smoothly. I also encouraged students to bring flash drives to back up their project file(s) at the end of each session and I took my laptop computer to each lesson for the same purpose.

Although these students were very adept at using their iPhones, they were not proficient with Microsoft Word or PowerPoint (Microsoft Office, 2006). They sometimes asked for help using various functions and on other occasions I suggested more efficient or effective ways to use the software. The projects therefore provided opportunities for them to develop their IT skills. Also, some teams wanted to use colour pictures in their project outputs but did not have access to a colour printer on campus or at home, so I offered to print the images for them. Similarly, some teams wanted to use YouTube videos in their show-and-tell phase, so I saved the videos to my computer's hard disk for easier retrieval and playback.

Regarding ongoing data collection, I administered the SPA forms during the last five minutes of each project session. Participants usually completed the forms individually but occasionally in discussion with other team members, presumably to aid recall. They then returned the forms via the A4 size envelope as previously described. The number of forms always matched the number of attendees, i.e. there was a 100% return rate, though not always a 100% attendance rate.

During the project sessions, I noted relevant points of interest using the FON form and had follow-up conversations with students for clarification, as described in section 5.4.3. Across all groups, these notes yielded some very interesting and useful observations and suggested points worthy of follow-up during the post-project interviews. Even before formal analysis, some behavioural and learning trends started to appear within and between groups. I explore these in Chapters 7 and 8.

While piloting the FON form, it had become apparent that the process of choosing what or who to observe, and interpreting those observations is laden with subconscious, personal bias, subjectivity and some element of chance. I also realised that care needed to be taken to note multiple possible explanations or interpretations for observed events, as well as prompts for follow-up questions to students to understand events from their perspectives to ameliorate this observer bias. When feasible, I sought clarification of the field observation notes from the relevant students during or immediately after the lesson through brief, informal conversations. Other issues highlighted in the notes, especially those pertaining to wider patterns of behaviour among the students, were discussed in more detail during the post-project interviews.

Rather than carry the FON form on a clipboard around the classroom during the project sessions, which would make it very obvious that I was taking observation notes, the FON form was left on the teacher's desk at the front of the classroom so that I could make notes relatively discretely and confidentially. When I made a noteworthy observation, I returned to the desk at the earliest opportunity to write it down. Enough copies of the FON form were always prepared and available for each lesson. However, I did not inform the students that I was taking observation notes, as this may have changed their behaviour, though perhaps some students eventually realised that I was doing so. This practice is in line with Richards (2003, p. 108), who notes that "[t]he observer…needs to ensure as far as possible when taking notes that this is not apparent to others present, even though they may well 'know' what the researcher is doing, having given permission for it".

The projects ended at the mid-semester point when the students showed their project outputs to the other teams in their groups. The news stories, PowerPoint presentations and TV infomercials were all video-recorded and script papers, pictures and computer files

were collected to provide additional sources of data (see section 5.4.5). These were later analysed and used to exemplify areas of possible EFL learning, discussed in Chapter 8.

5.5.2.3 Post-project data collection

The post-project interviews were conducted after the projects were completed, with the same pre-project informants and using the same protocol (appendix 12). A complete interview guide showing the questions used is given in appendix 4 but they loosely centred around the informants' general evaluation of PBLL, whether and to what extent they felt that the projects had developed their English, their ideas for improving the projects and their degree of L1/L2 use.

The post-project surveys were administered after the projects' 'show-and-tell' lessons, again using the protocol outlined in appendix 13 for standardisation. This provided matched pair data for the EFL knowledge and skills areas specified in section 5.4.2.1.

5.6 Data translation and transcription

In order to analyse the data, participants' responses were first translated from Japanese to English by the same translator who had helped to develop the data collection tools and supporting documents. Employing the same translator meant that she was already familiar with the research theme and data collection tools and would therefore be in a better position to contextualise participants' responses.

To greatly streamline data input, coding and analysis, the translator made a blank master copy of the English versions of the pre- and post-project surveys and the SPA form for each group using Microsoft Word 2007 (Microsoft Office, 2006). From these masters she then made multiple copies, naming each with the uniquely identifying combination of group label (W, P or OE), respondent number and the date on which the form was completed as shown on the paperwork itself. She could then type the translated qualitative

responses from each informant directly into their individual Microsoft Word file. This system made data entry, coding and retrieval relatively quick and easy.

Following Temple & Young's (2004, p. 170) advice to discuss word choice with the translator, when clarification was needed, we met to discuss and choose the most probable interpretation. Each group's translated files were then e-mailed to me and stored on a computer for input, preparation, coding and analysis using NVivo version 10 (NVivo, 2011). The original hardcopies were then returned to me for quantitative data input into SPSS version 21 (SPSS, 2012) and so that I could refer to them later as needed.

Again following Temple & Young (2004, p. 170), the translator translated the interviews' audio recordings in collaboration with myself, checking and clarifying as needed over several face-to-face meetings. The translations were typed directly into Microsoft Word files to create transcripts, used as source documents for input and coding of interview data into NVivo for analysis. An example transcript is offered in appendix 11 and Chapter 6 describes in more detail how the dataset was input, prepared, coded and analysed.

5.7 Summary

This chapter has set out the study's research design and methodology. While Chapter 2 set out the wider, general educational context, here I have described the specific, institutional setting and participants to more precisely contextualise the study. I demonstrated an awareness of, and compliance with, ethical practice and detailed the development of the supporting materials and data collection tools needed to answer the research question posited at the start of the chapter. The procedures for collecting, translating and transcribing the rich, multiple-perspective, longitudinal dataset were also explained and I have supported my methodological choices with reference to relevant literature. Chapter 6 will detail how these raw data were processed to generate the study's results.

Chapter 6: Data organisation, preparation and coding

In this chapter, I explain how the quantitative and qualitative data collected through the methodology described in Chapter 5 were organised, 'cleaned' and coded to help the reader more easily understand and evaluate the analyses, results and discussion in Chapters 7 and 8.

6.1 Organising the data

The very large volume of data collected required that they be systematically organised to facilitate input, coding, various forms of analyses and retrieval.

Quantitative data were entered into SPSS data files. For clarity, the pre- and post-project surveys each had separate data files. Figure 6.1 shows how they were organised by group and respondent number, followed by the survey items.

Figure 6.1: The structure of the pre- and post-project surveys' SPSS data files

The SPA data file shown in figure 6.2 below used the same structure but with an additional organisational layer labelled 'Session', relating to each project session, at the end of which the students completed an SPA form.

133

	Setting	Group	Number	Session	Item1a	Item2a	Item3a	Item4a	Item5a	Item6a	Item7a	Item7b	Item8a	Item9a	Item9b	Item10a	Item10b	Item11	Item12Option Alone	Item12Option BInPairs	Item12Option CInGroups	Item13OptionASpokenIn L2
1	3	5	108	1	1	2	2	1	1	1	1	1	1	1	c	2	b	d	1	2	2	1
2	3	5	109	1	2	1	2	2	2	1	1	1	1	1	c	2	a	c	2	2	1	2
3	3	5	110	1	2	2	2	2	1	2	1	1	2	1	a	2	a	d	2	2	1	2
4	3	5	111	1	2	1	2	2	1	2	1	1	1	1	c	2	b	c	2	2	1	2
5	3	5	112	1	2	2	1	2	2	1	1	1	1	2	x	2	b	b	2	2	1	1
6	3	5	113	1	2	1	2	2	2	2	1	1	1	1	d	2	b	b	2	2	1	1
7	3	5	114	1	2	1	2	2	1	2	1	1	2	1	c	2	b	c	2	2	1	1
8	3	5	115	1	2	1	2	2	1	2	1	1	1	1	b	1	x	c	2	2	1	1
9	3	5	116	1	1	1	2	2	2	2	1	2	1	1	d	2	b	b	2	2	1	1
10	3	5	117	1	1	1	2	1	1	2	1	1	1	1	c	2	b	c	2	2	1	2
11	3	5	118	1	1	1	1	2	1	2	1	1	2	1	f	2	d	c	2	2	1	2
12	3	5	132	1	2	1	2	2	1	2	1	1	1	1	b	2	b	d	2	2	1	1
13	3	5	107	2	2	2	2	2	2	2	1	1	1	2	x	2	b	c	2	1	2	2
14	3	5	109	2	1	1	2	2	1	2	1	1	1	1	c	2	b	b	2	2	1	2
15	3	5	110	2	2	2	2	1	2	2	1	1	1	1	b	2	a	d	2	2	1	2
16	3	5	111	2	1	1	2	2	2	2	1	1	2	1	b	2	d	d	2	2	1	2
17	3	5	112	2	2	1	2	2	2	2	1	1	1	1	d	2	b	c	2	2	1	1
18	3	5	113	2	1	1	2	2	2	1	1	1	1	1	e	2	b	b	2	1	2	1
19	3	5	114	2	2	1	2	2	2	1	1	1	1	1	d	2	b	b	2	1	2	1
20	3	5	115	2	1	1	2	2	2	2	1	1	1	1	b	2	b	d	2	2	1	1
21	3	5	118	2	1	2	2	2	2	2	2	1	2	1	f	2	d	d	2	2	1	2
22	3	5	107	3	2	2	2	2	2	2	1	1	1	1	b	1	x	d	2	2	1	1

Figure 6.2: The structure of the SPA form's SPSS data file

The Writing group had nine sessions, the Presentation group five and the Oral English group eight.

Qualitative data comprised translated statements and interview transcripts in Microsoft Word files and interview recordings' audio files. These were all imported into NVivo and stored as 'Internal Source' files. As figure 6.3 below shows, on the left side the data were organised first by data collection method, then subdivided by group and, for SPA data also then chronologically by project session. Within each folder, participants' Microsoft Word source data files were identified using their unique Setting-Group-Respondent number designation. For example "3-P-119" shown in figure 6.3 identifies respondent number 119 in the Presentation group at the junior college. (Note that settings 1 and 2 relate to the other institution which was eventually excluded from the study.) Since each participant had several SPA forms, these were distinguished by the use of session numbers, similar to the organisation of the corresponding quantitative data in SPSS .
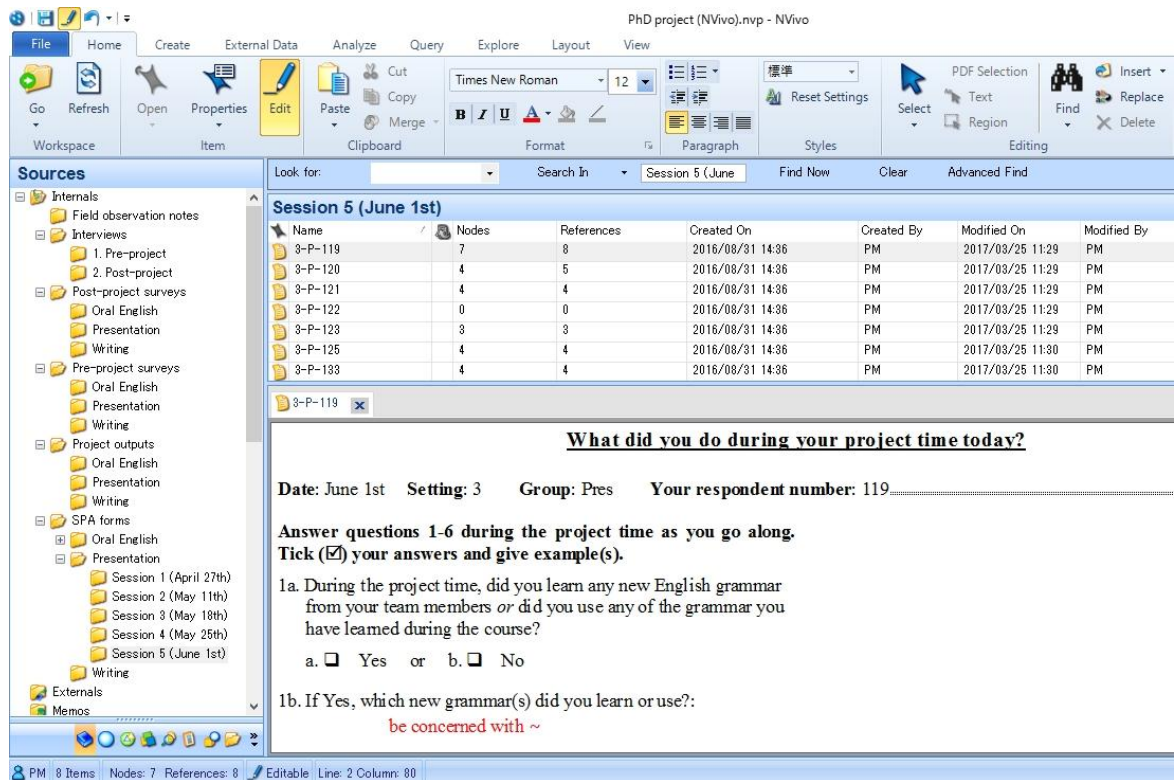
Figure 6.3: The structure of NVivo's 'Internal Sources' folders

Once the dataset's structures within SPSS and NVivo were decided and the data had been input, I could prepare the dataset for analysis through the series of procedures explained in the next section.

6.2 Preparing the data

Having organised and input the quantitative data into SPSS files, the next step was to prepare the data for analysis by adhering to Dornyei's (2007, p. 199) recommendation "to screen, clean, and possibly manipulate [the data]" because "the initial data file will always contain mistakes" (p. 202). These procedures related to verification, validation, missing data and disqualification to further strengthen the dataset and thereby the methodology. This section explains how these procedures for data preparation were conducted and how they help to 'clean' the dataset by eliminating, or at least greatly reducing the number of errors contained within it prior to analysis. This aims to maximise the accuracy of the analyses conducted on the quantitative data.

6.2.1 Verification

Dornyei (2007, p. 202) points out that during data input the researcher can make transcription errors or omit data. The process of verification aims to correct these types of error so that the input data match those of the source. His suggestion to create a duplicate data file then to compare it via computer with the original would likely have taken longer than manual, visual source-to-data file comparison, so I used the latter method. Qualitative data input to NVivo could only be visually verified by myself where the source data was written in English. Where it was originally provided in Japanese, I have relied on the translator both to provide accurate English translations and to double-check that they were entered correctly into the Microsoft Word source files to match the intended meaning.

6.2.2 Validation

Validation is the process whereby data are checked to see if they are internally consistent. This can take several forms. *Format checks* confirm that data are of the correct alpha-numeric format and length. *Presence checks* ensure that data are present or absent as appropriate, and *range checks* confirm that the data are within a predetermined range of permissible responses. These checks were conducted concurrently with the visual verification process. However, it was still necessary to validate the quantitative data for logical errors. Referring to the SPA form in appendix 9 will assist the reader here.

Two-part questions such as item 1 on the SPA form required a Yes/No (quantitative) response to the initial question (e.g. 1a) and a qualitative response to the follow-up item (e.g. 1b) to provide more information. If the participant indicated that the condition stated in the question (for example item 1a's "Did you learn any new English grammar?") applied to them, but did not respond to the follow-up item, then the response to the initial item was still accepted because the condition may still have applied even though the participant did not evidence it with a supporting example or comment. Conversely, where

a participant's response to an initial Yes/No item indicated that the condition did *not* apply and that therefore a qualitative follow-up response was *not* required, yet one was actually provided, the response to the initial Yes/No question was changed accordingly because logically, if a follow-up response exists, the condition exists and therefore the participant must have answered the initial item incorrectly.

6.2.3 Missing data

A common problem in social sciences research occurs when participants omit responses to survey items. These missing data reduce the size of the dataset, thus weakening the analysis and hindering interpretation of the results. Larson-Hall (2010, p. 189) writes that where the amount of missing data represents only a small percentage of the quantitative dataset, and where the omissions themselves do not exhibit patterns that would explain them, it is acceptable to use the mean value of responses provided for that item. Within the SPA form's dataset, only 11 quantitative data bits out of 2,784[1] (0.4%) were missing. (This extremely low rate may be attributable to the form's design which made it very quick and easy to complete quantitative items, and the fact that it was in the participants' L1.) However, in this study the quantitative data are nominal (for example Yes/No) or ordinal (for example the level of L1 use in item 11) and the numeric or alphabetic values assigned to represent responses are merely labels. Using mean values, as Larson-Hall (ibid.) suggests, would therefore be invalid. (For example, it is not possible to have 1.2 of a Yes response.) Instead, for the SPA form's quantitative data, the modal value of the responses for a given item across all project sessions from *the participant in question* were used to fill in missing data for that participant. Using the modal value of an individual's responses to an item rather than those for their group or the entire sample was deemed to

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1 16 QUAN items per SPA form x ((W 13 students x 9 sessions – 22 absences) + (P 8 students x 5 sessions – 5 absences) + (OE students 6 x 8 sessions – 4 absences)) = 2,784 QUAN items.

better reflect the selection that *that individual* might have made, and thus enhanced the procedure's validity.

In addition, three more logical conditions were applied to fill in missing SPA form data. Again, reference to the SPA form in appendix 9 may assist the reader.

Firstly, in two-part questions, where the response to an initial Yes/No question was missing but a qualitative response to the follow-up item was provided, the answer to the initial question was added to show that the condition applied because the presence of the follow-up response showed that it did.

Secondly, in two-part questions, where the response to an initial Yes/No question was missing and no response was provided to the follow-up item, the individual's modal response for the initial item was used, as described above.

Finally, where a response to items 9b or 10b on the SPA form were not required because the item did not apply, rather than leaving the SPSS cell blank, the value "x" ('Does not apply') was assigned in the data file to distinguish such cases from other response options and therefore give a more accurate analysis.

However, *individual* modal values could not be calculated for missing data in the pre- or post-project survey dataset because there were not enough surrounding data to estimate them. Therefore, *group* modal values were used to fill in missing data, except where a student did not complete a survey at all due to absence[2], in which case the data were left blank. While this reduced that individual's voice in the study, it maintained the dataset's integrity.

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2 W108 was absent for the pre-project survey, W110, P124 and P134 were absent for the post-project survey and W116 was absent from both, reducing the total available for matched pair analysis from 28 to 23.

This completed the validation process, leaving only an examination of participants who might need to be disqualified from all or part of the analysis for whatever reason, as described in the next section.

6.2.4 Disqualification

The final step to clean the dataset was to check for any participants whose data might need to be omitted from the analysis.

During the research period, I observed that one student in the Presentation group was consistently completing her SPA forms in only a few seconds, ticking boxes very rapidly and not answering the follow-up qualitative responses. I felt that she could not have given herself enough time to read the questions (even in her L1) and give considered responses. The forms were administered in the last five minutes of each lesson and it seemed that she was doing this to leave the class as soon as possible. Therefore, after the course had ended I deduced her respondent number (P122) from her pattern of attendances and absences. A visual check of her SPA forms showed that she had answered almost all of the tick box (quantitative) items but had skipped almost all of the follow-up items. By contrast, her pre- and post-project surveys, administered at the start of a lesson, provided qualitative responses to almost every item, showing that she had given much more thought to those questions. It was therefore decided to discount her SPA data from the study because it seemed unconsidered, but to include her pre- and post-project survey data. No other participants' data were discounted.

With the dataset cleaned through verification, validation, filling in of missing data and consideration of disqualifications, I moved on to coding the qualitative data, explained in the next section.

6.3 Coding the data

To code such a large volume of data, it was useful first to decide how to divide up the analyses. I decided to use Canale & Swain's (1980) and Canale's (1983) model of communicative competence for reasons explained in section 6.3.1. Then I coded the qualitative data through a two-stage but iterative process set out in section 6.3.2.

6.3.1 Choosing the foci for coding and analysis

The learning objectives of the EFL courses included in this study can be described in terms of Canale & Swain's (1980) and Canale's (1983) four communicative competencies, explained in section 3.1.5. Grammatical competence here encompassed grammatical, lexical, spelling and pronunciation systems, collectively called 'language knowledge'. Discourse competence consisted of speaking, listening, reading and writing language macro-skills and course-specific language micro-skills, collectively called 'language skills'. As a course objective, strategic competence in the form of techniques and language for clarification requests, confirmation and comprehension checks (see Chaudron, 1988, p. 45) and general discourse repair was more relevant to the Oral English and Presentation courses than to the Writing course. Sociolinguistic competence did not feature heavily in any of the courses' content beyond the point that language choice and use are context- and audience-specific.

However, including all of the above was beyond the scope of the study, so I decided to focus more narrowly on grammatical (language knowledge) and discourse (language skills) competencies during coding and analysis because they were most pertinent to the courses' primary learning objectives. Another reason for this selection was that, as discussed in Chapter 3, Eyring (1989) and Beckett (1999, pp. 149-152) found that some students expected their EFL teachers to focus on grammatical competence and resented the imposition of a novel approach which they perceived did not work towards that goal.

If the results indicated that students perceive PBLL as facilitating learning in this area, this finding might persuade disaffected students to more enthusiastically engage with the approach.

Another reason to code for language skills was that, as highlighted in Chapter 2, by the time students finish high school at aged 18, they have had ample instruction in, and testing on basic English grammar and vocabulary, but have not had sufficient opportunities to apply that knowledge at the level of extended discourse in interactions that could be considered genuinely communicative. My courses therefore tend to emphasise the development of macro- and micro-language skills, i.e. discourse competence. If the results suggested that students perceive PBLL as helping to develop these various language skills, it might lend support for the approach. It was for these reasons that these areas of language knowledge and skills became the focal points for qualitative data coding.

6.3.2 The coding system

Contained within the qualitative dataset collected from these 28 students, were a wealth of behavioural patterns, learning trends, pedagogic insights and students' and the teacher's perspectives relating to prior EFL learning experiences and the perceived EFL learning outcomes associated with PBLL. These can be thought of as themes, which are "abstract representation[s] of an object or phenomenon" (Bazeley & Jackson, 2013, p. 70) possibly worthy of further examination and discussion. To create these themes, the data were grouped or organised using 'codes', which Saldana (2013, p. 3) defines as "summative, salient, essence-capturing, and/or evocative attribute[s]". As I coded more data, new themes emerged and coalesced, often revealing relationships between them, with some becoming more dominant or prevalent than others. From these themes and codes I could choose those most informative, interesting and relevant to the research question and use them to inform the discussion presented in Chapters 7 and 8.

In line with Saldana (2013), the qualitative dataset underwent two stages of coding. In the first, I applied structural coding to divide and organise the data by general content, conceptual themes or topics. Saldana notes that this form of coding is especially suitable for studies, such as this one, which "[employ] multiple participants, standardized or semi-standardized data gathering protocols, hypothesis testing, or explanatory investigations to gather topics, lists or indexes of major categories or themes" (ibid., p. 84). In figure 6.4 below, examples of these are the separate folders on the left for the various data collection tools, language skills and facets of language knowledge.
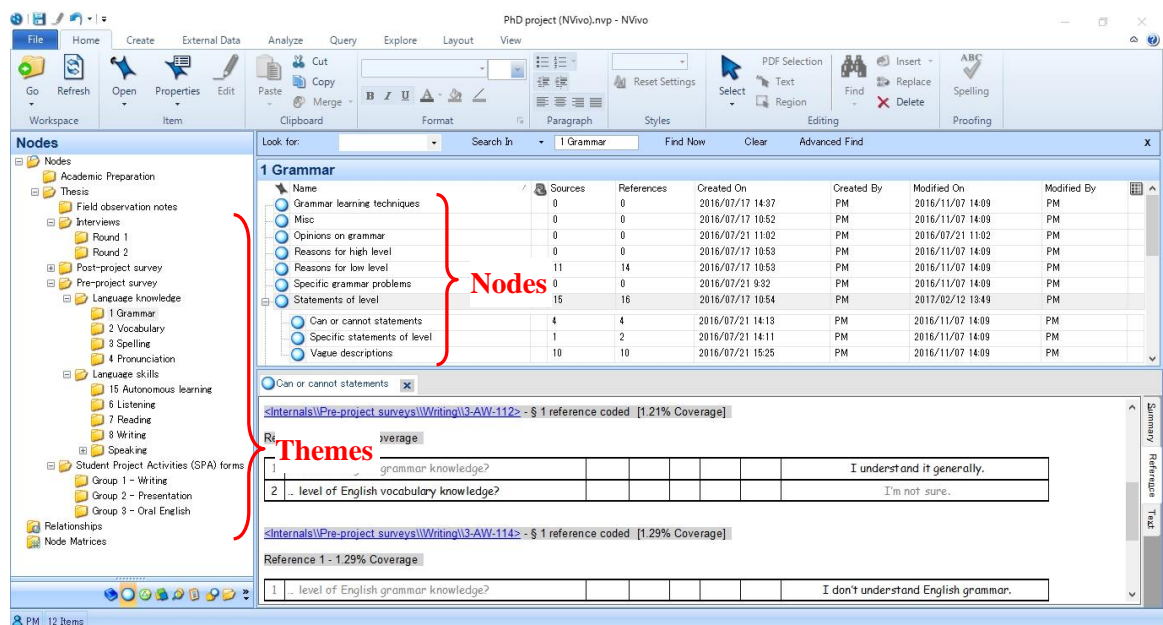
Figure 6.4: The structure of NVivo's coding folders and nodes

The themes revealed in this first stage then underwent a more detailed analysis through second stage "focused coding" (Saldana, 2013, p. 213), to build up a picture of the most commonly occurring, relevant and revealing categories and sub-categories. NVivo calls these 'nodes', shown in figure 6.4. As the coding progressed and new categories were added, this gave greater depth and breadth to the description and interpretation of each theme and category. Examples of this stage are the nodes containing students' 'Reasons for low level' and 'Statements of level', which is itself sub-divided into students' 'Can or

cannot statements' and 'Specific' and 'Vague' descriptions. These theme- and category-specific descriptions and interpretations then fed into an overarching description and interpretation of the dataset to formulate a response to the research question.

This process, adapted from Saldana (2013, pp. 13, 53), is illustrated in figure 6.5 below.
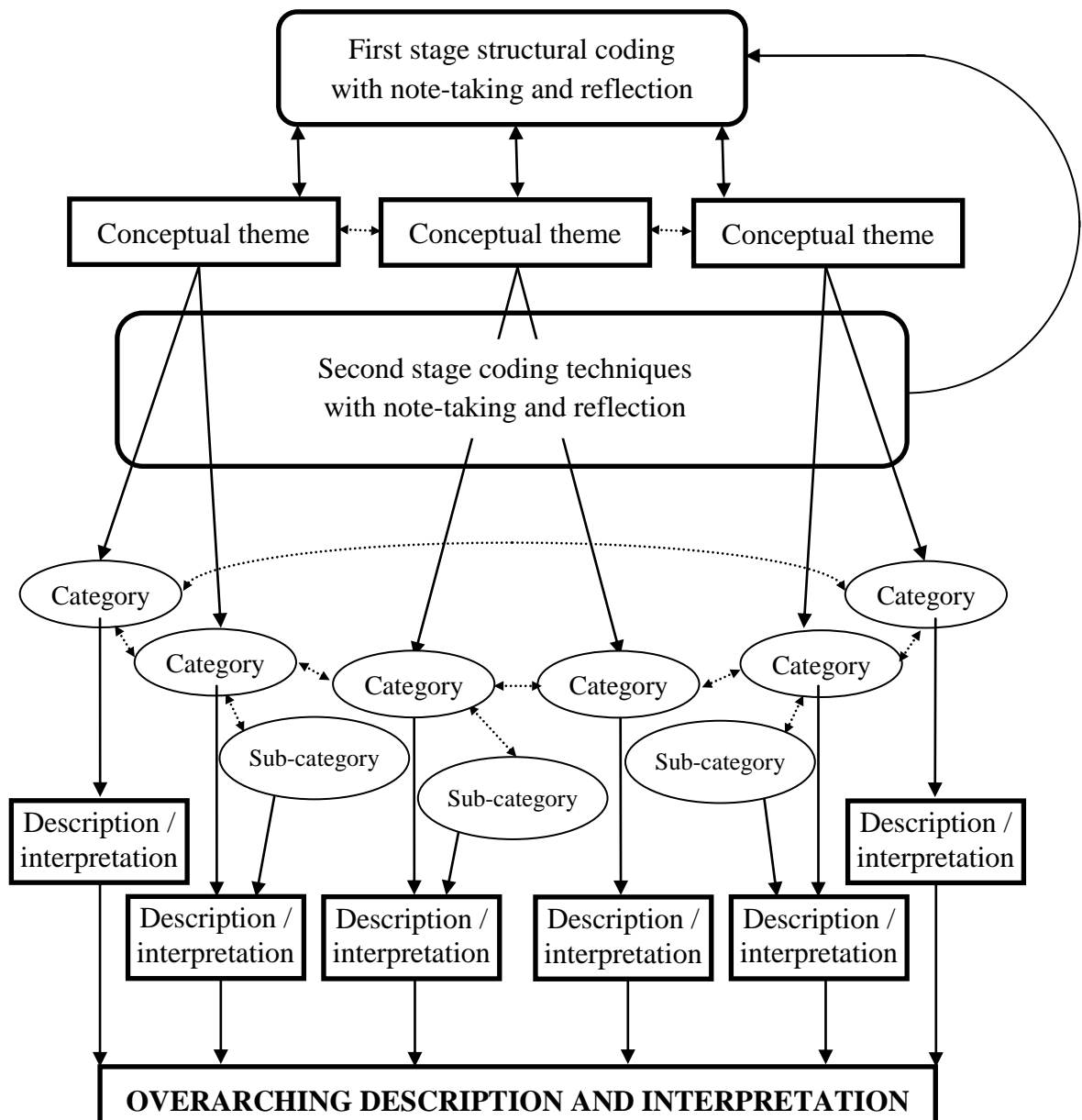
Figure 6.5: The coding process used to describe and interpret the qualitative data

Note that a 'conceptual theme' in figure 6.5 equates to the folder structure in figure 6.4 above, for example 'Pre-project survey/Language knowledge/Grammar', and that a

'category' equates to a node, exemplified above. The coding process was highly iterative and cyclical rather than linear, with data, codes, themes, categories and sub-categories being revisited, re-examined and linked to reveal relationships and to extract as much information from the dataset as possible. Note-writing and reflection throughout also greatly helped to organise ideas, discover new themes and categories and to delve deeper into areas of interest. In this way the coding developed organically rather than in a predetermined, pre-emptive or prescriptive way.

In this chapter I have described and justified the steps taken to organise, prepare and code the dataset used in this study. The following chapters present the analyses, results and discussion. Chapter 7 focuses on perceived EFL skills development outcomes, while Chapter 8 covers those for reported EFL knowledge learning.

Chapter 7: Language skills development outcomes

The findings from the data collected through the design, materials, tools and procedures described in Chapters 4 to 6 can loosely be divided into two EFL learning domains: macro-skills and knowledge. For clarity of organisation, the analysis, results and discussion for each EFL macro-skill are presented in turn in this chapter, while those for EFL knowledge are presented in Chapter 8.

As the analysis proceeded, it became clear that certain general behaviours and choices made by the students might have affected their perceived (i.e. reported) learning outcomes. For example, the many language and content learning, cognitive, social and affective benefits of project-work reported in the literature are predicated on the assumption that students will often work collaboratively to complete the various tasks that comprise a project. Therefore, section 7.1 examines to the extent to which students worked alone, in pairs and in groups, and some of the reasons for their preferred and actual modes of study. Project-work generally also requires students to use multiple language skills, even in one project session, so section 7.2 describes the extent to which students' reported using each of the four language macro-skills. Next, as Swain (1985) has argued, comprehensible output in the form of spoken and written production of the TL is a necessary part of language learning and development. Therefore the degree to which students perceived that they had had opportunities to produce spoken and written English is discussed in section 7.3. Related to this was whether they were using the TL 'communicatively' to convey information, and what kinds of information they used the TL to convey. This is discussed in section 7.4. Finally, it is generally assumed that the more a language learner uses the TL, rather than their L1, to communicate meaning during project sessions, the more they will develop various aspects of their communicative competence, so the extent to which they used Japanese and English and, in general terms, the functions which each language

fulfilled, are discussed in section 7.5. Thereafter, the chapter moves on to deal with specific language macro-skill categories, often with reference to points raised in the preceding sections to inform the discussion. Section 7.6 explores speaking, including student-student and student-teacher conversations and discussions, while listening, reading and writing are discussed in sections 7.7 to 7.9 respectively.

Some explanation as to how sections 7.6 to 7.9 are organised and presented will be helpful to the reader. Each macro-skill section uses the same basic format. First, the students' pre-project surveys' quantitative results are presented in graphical form to show their baseline self-assessments in a particular EFL language skill or knowledge area. These baselines are discussed with reference to other related quantitative and qualitative data, literature and results. This is followed by the results of perceived changes, if any, in that EFL skill or knowledge area, presented in tabular form and similarly discussed. The reader will be directed at certain points to additional supporting figures and tables provided in the appendices. They are placed there to maintain the narrative's flow.

Note that the results for the pre-/post-project surveys' quantitative items are presented as actual frequencies. However, directly comparing the response frequencies between the three groups' SPA data would be invalid because the groups had an unequal number of students and project sessions. This means that the three groups completed an unequal number of SPA forms. To overcome this problem, the frequencies were converted to percentage frequencies to normalise the results and make direct comparisons between groups possible. However for completeness, both actual frequency and percentage frequency results are presented in SPA results tables.

For brevity and to make the discussion more reader-friendly, within each section I have amalgamated the relevant results from the various data collection tools described in Chapter 5, rather than present each one's results separately in turn. Finally, for the purpose

of creating a more readable narrative, main survey and SPA form items do not necessarily appear here in the order in which they were presented on the forms themselves, but in the order which facilitates a well-structured discussion.

7.1 Modes of study

The three classes were divided into project teams. The Writing group had four teams of three or four students, the Presentation group had three teams of three and the Oral English group had two teams of three. During project sessions, the students were free to decide for themselves whether they needed to work individually, in pairs or as a team. I felt that this freedom to switch between modes of study and to make other decisions based on the demands of the task at hand would help students to develop learner autonomy and problem-solving and decision-making skills.

SPA item 12 checked to see which modes of study each student had used during each project session. Multiple responses were allowed since students switched modes as necessary during a project session to meet the demands of the project as it progressed. Table 7.1 and figure 7.1 present the results for each mode in tabular and graphical form.

Table 7.1: Results for SPA form item 12: Mode of study

Group	Project sessions	Response option		
		A: Alone	B: In pairs	C: In groups
		Frequency (% frequency)		
W (*n=13*)	9	3 (3%)	11 (11%)	89 (86%)
P (*n=8*)[3]	5	1 (3%)	4 (11%)	32 (89%)
OE (*n=6*)	8	2 (4%)	5 (11%)	40 (87%)
Total (*n=27*)	22	6 (3%)	20 (11%)	161 (87%)

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3 There were actually nine students in this group but the SPA data for one participant (P122) were discounted as explained in section 6.2.4.
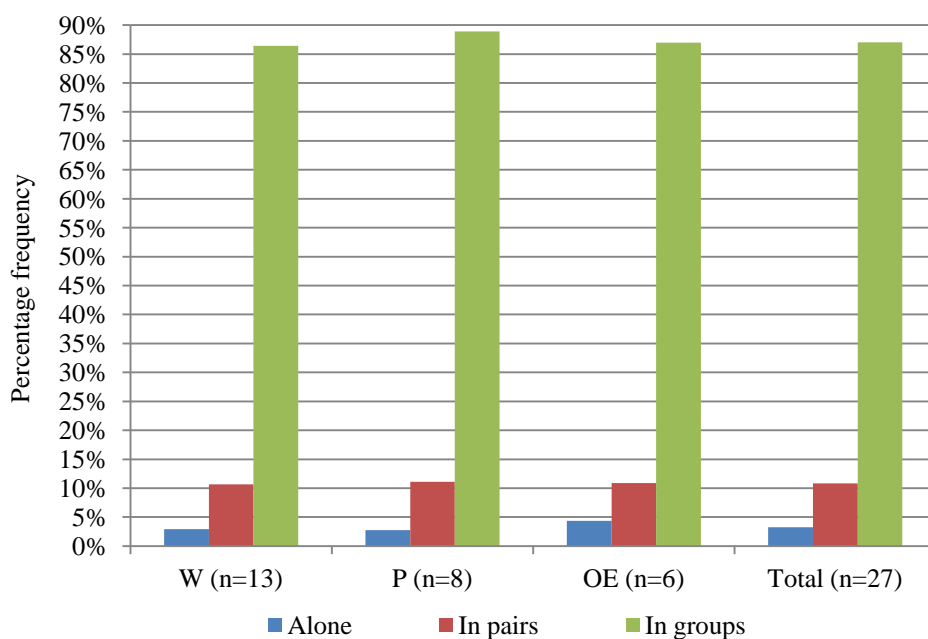
Figure 7.1: Percentage frequencies for SPA form item 12: Mode of study

As might be expected, group work was by far the most commonly occurring mode of study during the project sessions, with pair work and individual study coming in a distant second and third respectively. This was consistently the case across all three course groups, regardless of course content or project theme, although admittedly these results give no indication as to how much time students spent in each mode of study.

This result meshes well with those from item 29 of the post-project survey (appendix 8) asking students for their preferred mode of study during English lessons. Table 7.2 and figure 7.2 show that a large majority of students (67%) preferred to work in groups.

Table 7.2: Results for post-project survey item 29: Preferred mode of study

Group	Response options		
	A: Alone	B: In pairs	C: In groups of 3 or 4
W (*n=11*)	2	2	7
P (*n=7*)	1	1	5
OE (*n=6*)	2	0	4
Total (*n=24*)	5 (21%)	3 (12%)	16 (67%)
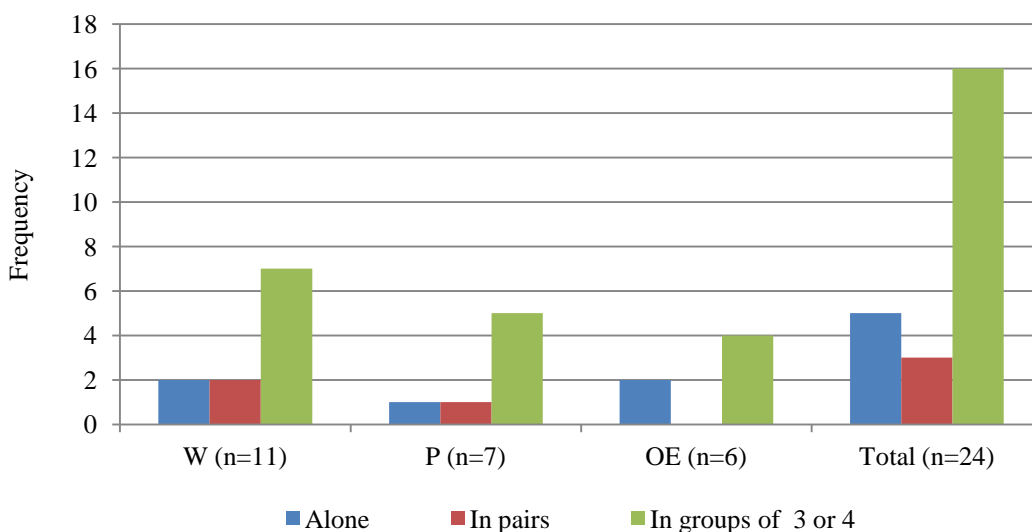
Figure 7.2: Frequencies for post-project survey item 29: Preferred mode of study

Qualitative data from miscellaneous items on the post-project survey offered several reasons as to why students preferred group work. Some students indicated that the group project-work had been "interesting" (W108) or "fun" (W113, OE127), that it was good for language practice (W113, P123, OE130) or because "we could share our knowledge" (OE131), that is to say that it offered opportunities for peer-learning. Others enjoyed it because they could "collaborate" (P125), "work with friends" (W111, P120) "make something with others" (OE129), "communicate in English" (P133) or, as OE126 put it, simply "[b]ecause there are smiles".

However, five students did indicate that they did not enjoy group project-work very much. For example, in the Presentation group's post-project interview, Sumiko stated that "The work in a group is not fair [so] I prefer to work alone". Similarly, W115 responded that "[i]t was unfair because sometimes some members were absent or late". Indeed three students conceded that they had caused problems in this way, for example "I caused trouble to other team members when I was absent" (W132). P120 also pointed out that group work was not enjoyable because "[i]t was difficult to form a consensus among the group".

Inequitable workloads and lack of consensus are both valid concerns which might be seen as drawbacks for group project-work and the adverse effects that these perceptions could have on a team and their progress with their project should not be overlooked or underestimated. Highlighting these potential problems to students, both at the outset of a project and during the project as they arise, might help to mitigate the negative affective impact they could have on students and serve to highlight the wide range of potential learning opportunities and outcomes that PBLL has to offer. It could be argued for example, that these problems simulate real-life situations beyond the classroom and that learning to deal with them through negotiation, compromise and a greater sense of personal responsibility are useful social exercises in their own right.

In short, the large majority of students enjoyed working in groups more than in pairs or individually and that this was because it was perceived as having a desirable affective, educational, social or creative component. While enjoyment does not in and of itself equate to learning, it likely contributes to the formation of a positive affective state which might motivate the learner to study and use the TL, and motivation has been very strongly positively correlated with language learning achievement (Masgoret & Gardner, 2003).

7.2 Language macro-skills usage

As this section will show, as students progress through a project, they need to bring different language macro-skills to bear in order to meet the demands of the various tasks which take the project to completion. While one or two language macro-skills may dominate any given project session, others may play a more minor role. The assumption is that the more each is utilised, the more it might be developed (Swain, 1985). Therefore, in this section, I examine the extent to which students reported using each language macro-skill during project sessions and how the freedom to use those skills as needed was received by the students. Since more detailed results are presented separately for speaking,

listening, reading and writing in sections 7.6 to 7.9 respectively, the discussion here is of a more general nature.

Item 13 on the SPA form asked which language macro-skills students had used in English during their project sessions. Students could tick any which applied, so multiple responses were accepted. Table 7.3 shows by group the frequency and percentage frequency of students who responded in the affirmative for each language macro-skill, while figure 7.3 shows the percentage frequency results graphically.

Table 7.3: Results for SPA form item 13: TL macro-skills usage

Group	Project sessions	Response option			
		A: Speaking	B: Listening	C: Reading	D: Writing
		Frequency (% frequency)			
W (*n=13*)	9	66 (64%)	78 (76%)	68 (66%)	80 (78%)
P (*n=8*)	5	33 (92%)	31 (86%)	23 (64%)	25 (69%)
OE (*n=6*)	8	38 (83%)	33 (72%)	24 (52%)	41 (89%)
Total (*n=27*)	22	137 (74%)	142 (77%)	115 (62%)	146 (79%)
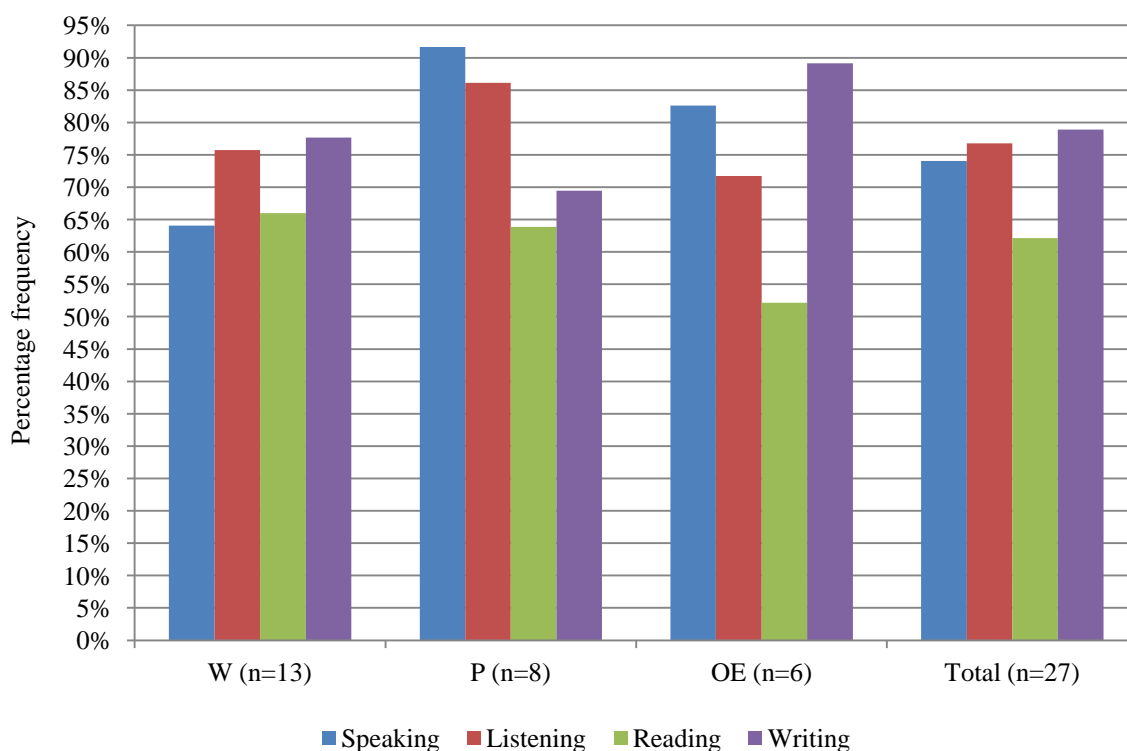
Figure 7.3: Percentage frequencies for SPA form item 13: TL macro–skills usage

In and of themselves these results do not seem to reveal very much, particularly because they represent the accumulated responses for each group across the entire project period and so some of the finer resolution has been lost, obscuring more detailed patterns of behaviour that may be present. However, it is evident that there was a fair spread of EFL macro-skills usage across the project period, regardless of the course content or project theme. That all four skills are well-represented in all groups is an indication that the students likely switched skills as needed to meet the demands of various stages of their project.

Looking deeper into the data to further examine this interpretation, one thing that emerged from the totality of field observation notes was that macro-skills usage tended to follow a similar trend in all project teams in all three groups. On starting the project, all teams were tasked with discussing the project's general theme, discussing and deciding their team's topic in response to the project brief's theme, sharing what they knew about that topic, deciding an interesting title, discussing relevant content, agreeing an acceptable way to organise that content and finally to design a suitable format for their project output. The data below comes from the field observation notes:

W group: Teams brainstormed and discussed ideas for their news storylines.

P group: Students discussed and negotiated their presentation topic and contents.

OE group: Teams discussed and decided their infomercial topics.

Once this initial planning stage was completed, students started to collect information, often reading in Japanese, but also sometimes in English, then shared that information in class.

OE group: Students used their mobile phones to access the internet (no cost involved) to get information for their infomercials.

They then moved on to using that information to prepare the written work needed to finish the project, writing scripts and preparing visual aids:

OE group: Students asked *dozens* of questions in English for help with their English. REALLY good progress writing their infomercial scripts. They applied several phrases, for example how to introduce and close the infomercial.

P group: Helped students with using PowerPoint to produce their presentation slides.

Then came the practice stage:

W group: I practiced the news story with Daisuke. (He was very good).

OE group: Rumi, Yuko and Momoe practiced their infomercial script.

Finally, there was the 'Show and tell' phase in which teams presented their creation to other teams in their class. This involved speaking by the 'presenters' and listening by the 'audience' in all cases and also reading the PowerPoint slides in the case of Presentation group's audience.

This general trend is borne out by table 7.4 and figure 7.4 below, which show reported EFL macro-skills usage by project session to provide the finer detail lacking in table 7.3 and figure 7.3 above.

Table 7.4: TL macro-skills usage by project session

Session	Groups	Speaking	Listening	Reading	Writing
1 (*n*=25)	W, P, OE	18 (72%)	21 (84%)	6 (24%)	20 (80%)
2 (*n*=22)	W, P, OE	14 (64%)	15 (68%)	10 (45%)	17 (77%)
3 (*n*=25)	W, P, OE	17 (68%)	17 (68%)	16 (64%)	19 (76%)
4 (*n*=24)	W, P, OE	19 (79%)	20 (83%)	13 (54%)	20 (83%)
5 (*n*=24)	W, P, OE	20 (83%)	20 (83%)	20 (83%)	20 (83%)
6 (*n*=16)	W, OE	11 (69%)	11 (69%)	11 (69%)	13 (81%)
7 (*n*=17)	W, OE	15 (88%)	14 (82%)	12 (71%)	14 (82%)
8 (*n*=19)	W, OE	13 (68%)	14 (74%)	17 (89%)	14 (74%)
9 (*n*=13)	W	10 (77%)	10 (77%)	10 (77%)	9 (69%)
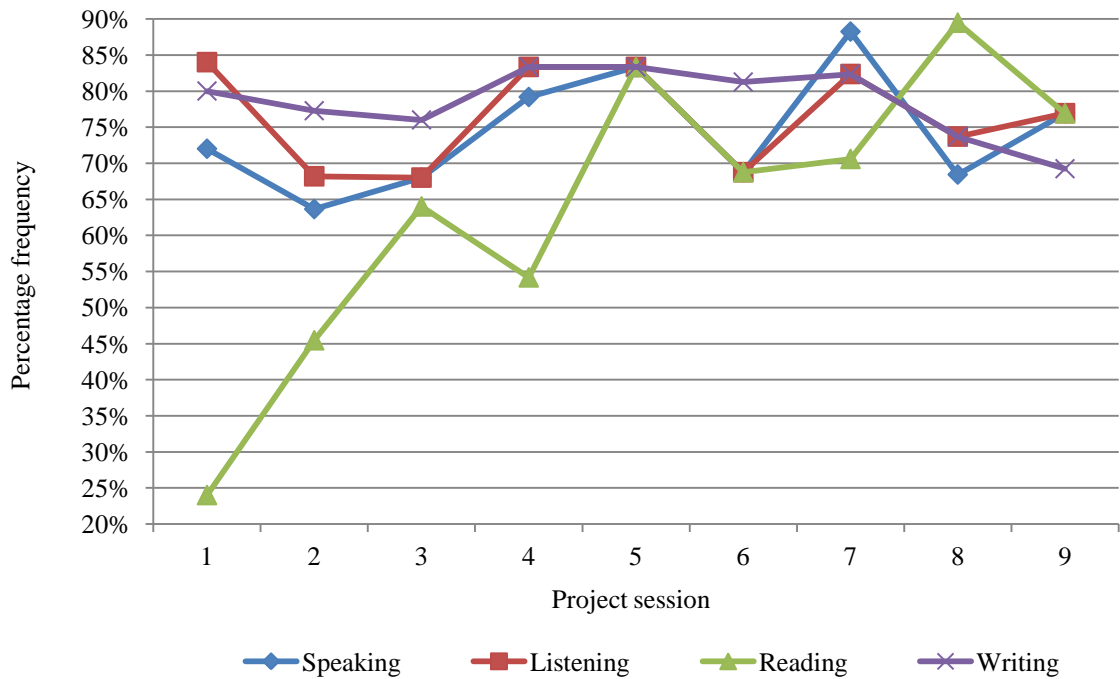
Figure 7.4: TL macro-skills usage by project session

Although the amount of speaking and listening rose and fell with the demands of each stage in the project, as might be expected, there was a very clear correlation (r=0.78, p=0.007) between these two macro-skills. This is unsurprising, since if one person is speaking in English, presumably one or more others are listening.

Reading generally increased as the project progressed. This is because initially students only had to read their project brief in English. Later they had to read the research information they had collected, though much of this was in Japanese. In the latter stages, they had to read more while redrafting their own written work and that of their teammates. Finally, during the 'Show and tell' phase, they had to read their own scripts and the visual aids used by other teams in their class. This latter explains the peaks at sessions five and eight, which represent the projects' finales for the Presentation and Oral English groups respectively.

The use of writing in English remained relatively stable throughout the project period, suggesting that students were writing in almost every session. First, they wrote notes

related to the initial discussions mentioned above, then notes on their research information. Then they developed their scripts and visual aids for their news story (Writing group), PowerPoint presentation (Presentation group) or fashion/exercise TV infomercial (Oral English).

These trends in reported EFL macro-skills usage across sessions seem to be synchronised to some extent with the sequence of 'Things to do' set out on their project briefs as a guide to help students manage and work through the various tasks needed to complete the project.

One phenomenon which became apparent in all project teams, in all groups during the research period was that while using their mobile phones or computers to research information during the project session, oral communication was drastically curtailed. That which did occur was generally in L1. As noted in the field observation notes, I termed this the 'LCD[4] effect':

> OE group: As with the Writing group earlier today, when students research in isolation for their infomercial's information, the LCD effect comes into play, reducing spoken English to a minimum.

This effect largely explains the inverse correlation between reading and speaking/listening during the first four project sessions shown in figure 7.4. Thereafter, reported EFL macro-skills usage became less predictable, perhaps as teamwork became more fragmented as students worked individually to complete their own part of the project.

So the extent to which each EFL macro-skill was reportedly used depended on what the students were doing and their mode of study: solo, pair work or group work. These choices were in turn dependent upon the demands of the project stage at which they were

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[4] LCD=Liquid Crystal Display

working. That is to say that certain tasks or activities require, and therefore elicit and thereby hopefully develop, particular EFL macro-skills. This in itself is not surprising, though it is useful to keep in mind if teachers wish to emphasise particular macro-skills within a project. What is interesting *is* that, beyond following the brief's 'Things to do' list, the students naturally organised their own work and used the macro-skills which best met the needs of the task at hand, without direction from the teacher. Their EFL macro-skills use was organic and authentic within the holism of the project, suggesting that PBLL mimics how people actually use various language skills to complete complex or extended tasks in the real world.

It is perhaps for this reason that seven students used the word "practical" at various points in their post-project surveys to describe project-work as a way of learning and using English. For example:

W113: Studying and practicing through projects is a more practical and helpful method.

W114: Project-work is very important because I can learn practical use of English.

P120: I could learn practical English. I could not study like that at junior and senior high school.

Others went further, recognising that project-work had altered their view of how language is used and how it can be learned, practiced and taught. For example, the post-project interviews yielded the following:

Sayaka (W group): We can do many different things simultaneously like listening as the teacher talks and when we want to ask questions we can ask the teacher, so we can speak English, and we think and then write and read, so all these things can be done at the same time, so it's good.

Sao (P group): At high school, listening and grammar were taught separately so I thought they are two different things, but in this class listening, grammar and

vocabulary were taught at the same time and are all connected and we can learn, so it's better and more practical.

Ayaka (OE group): When we learn like this, I mean study by ourselves, we can understand where, when and how we use it. So it is really practical.

Similarly, from the post-project survey:

W112: We can learn and practice all the skills at the same time.

W113: This project-work should continue because it is helpful for practicing all the skills of listening, writing, speaking and reading.

This is the "socialization" of integrated language learning that Mohan (1986), Beckett, Mohan & Slater (2000), Beckett (2005) and Kobayashi (2006) refer to. It seems that these EFL projects did not merely facilitate a deeper understanding of, and appreciation for the complexities of language and how it is deployed to get things done. They also brought about reflection on alternative, more holistic approaches through which foreign languages may be learned and practiced beyond those which the students had experienced in their school EFL education.

7.3 Opportunities to produce the target language

Literature in the field of applied linguistics has reached a consensus that opportunities to produce the TL, in spoken and/or written form, are essential for developing productive TL macro-skills (Swain, 1985; Spolsky, 1989, p. 170; Swain & Lapkin, 1995) and overall communicative competence (Canale & Swain, 1980; Canale, 1983). Though not trained linguists in the formal sense, the participants in this study are experienced language users in their mother tongue and also have six or seven years of EFL study behind them. They may well therefore have an innate understanding of this requirement for production in EFL learning.

For this reason, and to obtain auxiliary results which may help to explain the results relating to speaking and writing skills development later in this chapter, the study examined whether the participants felt that their project sessions had given them opportunities to produce spoken and written English. This was asked via items 7a and 7b respectively on the SPA form. The results for the former are presented below in table 7.5 and figure 7.5 and those for the latter are shown in table 7.6 and figure 7.6.

Table 7.5: Results for SPA form item 7a: Opportunities to speak in TL

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	97	94%
		No	6	6%
P (*n=8*)	5	Yes	36	100%
		No	0	0%
OE (*n=6*)	8	Yes	44	96%
		No	2	4%
Total (*n=27*)	22	Yes	177	96%
		No	8	4%
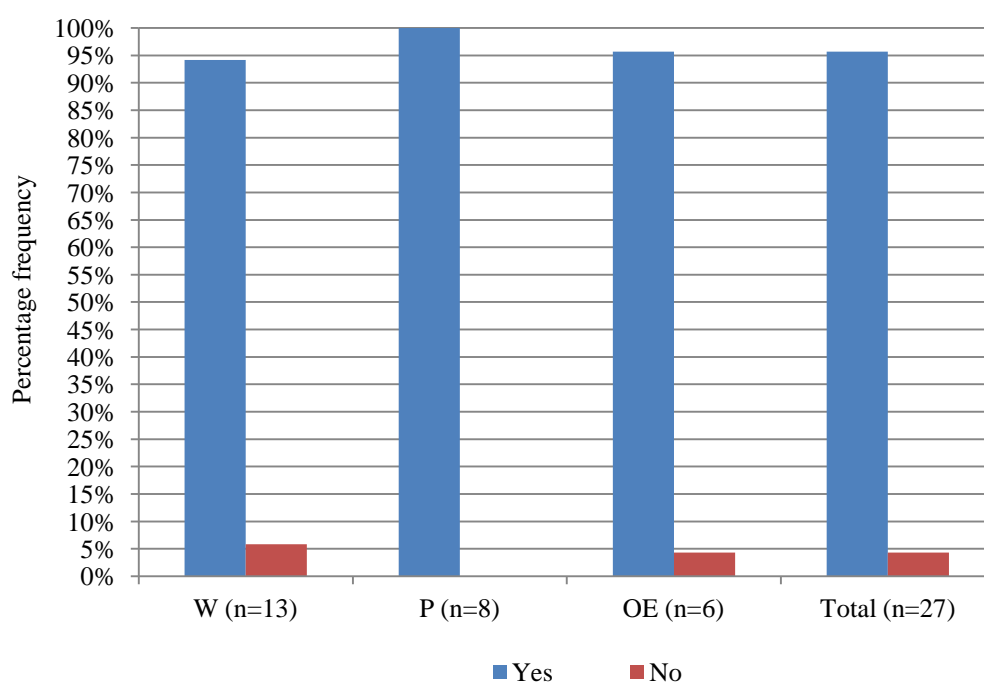
Figure 7.5: Percentage frequencies for SPA item 7a: Opportunities to speak in TL

Table 7.6: Results for SPA form item 7b: Opportunities to write in TL

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	88	85%
		No	15	15%
P (*n=8*)	5	Yes	32	89%
		No	4	11%
OE (*n=6*)	8	Yes	46	100%
		No	0	0%
Total (*n=27*)	22	Yes	166	90%
		No	19	10%
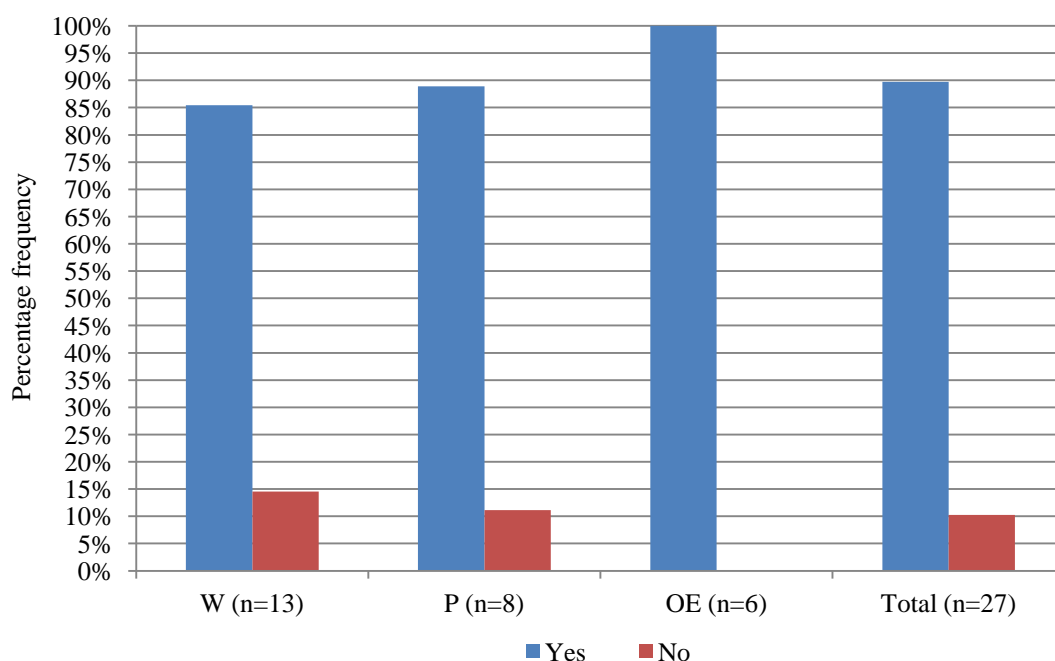
Figure 7.6: Percentage frequencies for SPA item 7b: Opportunities to write in TL

These results show that most participants in all groups felt that they had had opportunities both to speak and write in English during a large majority of project sessions.

Although SPA items 7a and 7b did not include a space for students to offer additional, qualitative information, some participants did comment on the opportunities to speak and write in English during their project in response to various items on the post-project survey:

W109: We have many opportunities to speak English.

W107: Overall, project-work is a good way to practice and study English because we get to write a lot of English words and grammar.

W118: It was helpful since many times we wrote in sequence.

OE128: There were a lot of opportunities to speak English.

Similarly, from the post-project interview with two students from the OE group:

Ayaka: At junior high schools, what we all did was to study on our own and we had no chance to discuss…but now we can discuss and give our opinions and ask questions in English.

and

Azusa: At high school, yes we had a few opportunities to speak English, but not in groups as much as we do now.

Others went further. Below is a sample of the comments from the eight students who directly or indirectly expressed an understanding of the important role of production in foreign language learning:

W111: English stays with us more easily because we think for ourselves and then write…I can learn more by using English through projects.

OE130: It is important to speak…I learned that you don't know unless you actually speak and use English.

OE131: By not only knowing a meaning of a word, but also using it, I could learn how to express myself.

P119: I think it is a good method to speak only English…It's a good way to learn English in English.

Likewise, from the post-project interviews:

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Ayaka (OE group): Well, if lessons are only to listen to a teacher, then I won't learn how to use…I think I wanted to study vocabulary a little more, but as for grammar, even if we study, if we don't use, we won't learn, so the way we did in the team project is good, I think.

Nana (P group): I used, so I remembered.

There was also some evidence that the provision of so many opportunities to produce English during project-work had had positive affective outcomes among some students.

P119: I was sure that I got used to English by doing a project.

Nana (P group): Compared to myself in high school, I think I became more proactive in using English.

These results are encouraging. They show that a very large majority of students reported that their project-work offered numerous opportunities for them to produce spoken and written TL and that they viewed this situation positively because it gave them a means of using English to express themselves within a context that generated genuine communicative needs. There is however a necessary caveat. These results do not attest to the extent to which the students spoke or wrote in English, the accuracy of the English they produced, or the extent to which these language macro-skills were reportedly developed through these opportunities. Those issues will be covered in sections 7.6 and 7.9 respectively.

7.4 The extent of L1 and L2 use

In Chapter 2 and section 5.2, I established that these students' prior EFL learning experiences had done little to develop their English speaking or listening abilities. As a result, a long-standing problem during EFL classes in Japan is that when given opportunities to practice English, students often quickly revert to using Japanese (Taguchi & Naganuma, 2006). They may do this for communication repair or to expand upon a

point of conversation, but whenever this occurs they lose opportunities to develop their TL strategic competence or wider communicative competence. Aware that this would likely be an issue during the courses and projects in this study, and wishing to take a pragmatic approach to the problem, I took the opportunity during the pre-project interviews to negotiate an agreement with the respondents on when it would be acceptable to use Japanese and preferable to use English. The outcome was an agreement on the principled use of Japanese and English, as advocated by Macaro (2005), Yonesaka & Mitsutada (2007), Ford (2009) and McMillan et al (2009).

When asked during the pre-project interviews how they would feel about an 'English only' policy, Noriko and Sayaka of the Writing group, and Nana and Sao of the Presentation group all replied that it would be "difficult". Ayaka of the OE group concurred, adding:

I don't know how to use words in a given situation, so I cannot express my feelings the way I want to, so it is very difficult, so I get frustrated sometimes.

Conversely, Azusa in the OE group, liked the idea of an English only rule, stating that:

I think we have to minimize the use of Japanese because it won't improve our English…I think it's good. If so, then we try to think in English and then if we think in English we use the same words repeatedly and eventually remember those words, so that's good.

The outcome of the pre-project interviews was an agreement that Japanese could be used to overcome the mounting frustration a student might experience if they could not express important information to their team members in English or, if necessary, to ask questions, but that L1 use would be kept to a minimum. Other than that, a standing rule of "If you can say it in English, use English" was to be applied. Questions commonly referred to in EFL textbooks as 'classroom English', which help students to check English in English would also be used. These included questions such as "How do you spell ~?", "How do

you say this word?", "What is ~ in English?" and "What does ~ mean?". In reality though, their choice of language would be largely self-regulated. This negotiated compromise seemed the most pragmatic approach to take given their comparatively low English proficiency level and the need to maintain interest in the project, so that at least some TL production would be forthcoming.

A copy of these guidelines and classroom English questions was given to each student to tape into the front, inside cover of their course file for easy reference during project sessions and as a reminder to use English whenever possible.

To gauge the extent to which students actually used English during each project session, item 11 on the SPA form asked them to evaluate their own L1/L2 usage. Five answer options were available:

a. I spoke only in English.

b. I spoke mostly in English but used a little Japanese sometimes.

c. I spoke about half in English and half in Japanese.

d. I spoke mostly in Japanese but used a little English sometimes.

e. I spoke only in Japanese.

The results for SPA form's item 11 are presented in table 7.7 and figure 7.7.

Table 7.7: Results for SPA form item 11: L1 versus L2 usage

Group	Project sessions	Response option				
		a	b	c	d	e
		Frequency (% frequency)				
W (*n=13*)	9	1(1%)	31 (30%)	37 (36%)	33 (32%)	1 (1%)
P (*n=8*)	5	0 (0%)	20 (56%)	13 (36%)	3 (8%)	0 (0%)
OE (*n=6*)	8	5 (10.9%)	14 (30.4%)	14 (30.4%)	11 (23.9%)	2 (4.4%)
Total (*n=27*)	22	6 (3%)	65 (35%)	64 (35%)	47 (25%)	3 (2%)
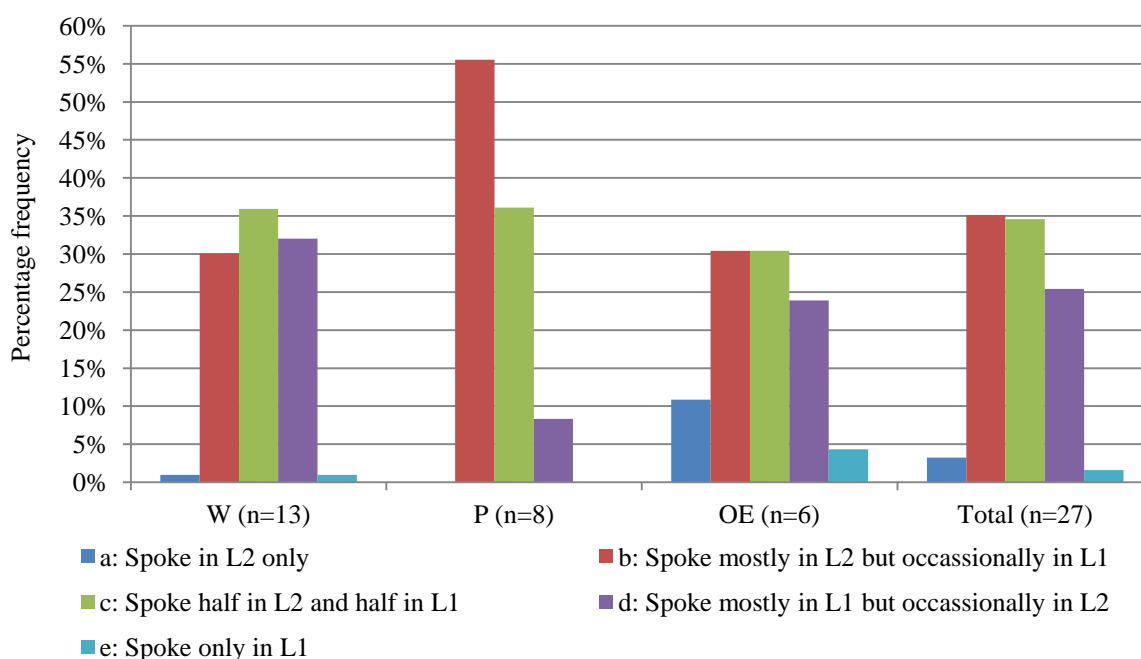
Figure 7.7: Percentage frequencies for SPA form item 11: L1 versus L2 usage

The above results show that the reported use of L1 and L2 was essentially equal in the Writing group, but very heavily skewed towards L2 use in the Presentation group and less so in the OE group. This difference may be explained simply by the nature of the courses themselves. While the Writing course focussed more on written work, the Presentation and Oral English courses both placed a stronger emphasis on the need for oral production.

As expected prior to commencing the projects, heavy use of L1 was a major concern and an ongoing problem during all project sessions in all three courses. In line with the negotiated agreement, it was acceptable for students to use Japanese in certain cases, but their L1 use consistently seemed to go beyond the agreed limits. They seemed unwilling and/or unable to self-regulate their use of Japanese. For example, W132 wrote in her post-project survey: "I used Japanese a lot during the project…I don't know what the point of the project was, as I used Japanese so much". Students frequently had to be reminded to use English. The problem was noted from the outset in the field observation notes. The following two excerpts come from the first project session with the W and OE groups:

W group: Initially they used L1 to discuss the news storyline, but when reminded to use L2 they switched, albeit after a long pause.

OE group: Discussion again initially in L1 about the topic of the infomercial.

It was such a pervasive issue throughout the project period that I eventually stopped commenting on it in the field observation notes. It became a given. The implication is that prior to using PBLL in these EFL courses, the students would perhaps have benefited from a preparatory period in which they received both more systematic and overt instruction in the related TL and skills, perhaps through tasks such as Haines' "lead-in activities" (1989, p. 5). This would have better prepared them for the demands of the project, as advocated by Stoller (2002, pp. 115-116). It may also have helped them to overcome any pre-existing affective barriers to using English that they may have had. Without this two-pronged approach to preparing students for EFL project-work, they might be linguistically and affectively unprepared for the demands of their projects. Though, as later sections in this chapter and Chapter 8 will show, positive learning outcomes were perceived to a greater or lesser extent across all TL skills and knowledge areas examined in this study, the perceived gains were likely less than they could have been had the students been better prepared in these ways for the demands of this approach and had they used less L1. Central to PBLL's conception of practice is that TL use is developed through interactions in the TL.

During the post-project interviews, I asked the students why they had not made more of their chances to speak in English. The following exchange (in Japanese) with the Writing group's respondents was representative of all three groups' answers:

Paul: You have this chance to speak English, but you don't usually use it? Why?

Makoto: Why? What I want to say cannot be delivered clearly in English, and also because I am talking to a Japanese person, so it's easier for us to understand in Japanese.

Paul: Ah, OK. (Students laugh.) Sayaka you're nodding your head.

Sayaka: Yeah. If I could speak English better, then of course I would love to speak English throughout the class, but I don't know enough English, so I tend to speak in Japanese.

Even Azusa of the OE group, who during the pre-project interview had advocated an 'English only' policy, had used Japanese extensively during project sessions. She explained (in Japanese) that "I cannot express myself precisely because I don't know enough English. I mean I can explain using easy words, but I cannot use complex sentences so much".

The post-project survey also revealed that for W107 "[i]t was very difficult to do everything in English" and that W109 was "so occupied with themes and contents that I often forgot to use English". This latter response meshes with a comment in my field observation notes that:

One reason all teams are using so much L1 over L2 might be that they feel the need or eagerness to progress at the same pace as if they were doing the project in Japanese. This perceived time pressure might be one reason why they use L1 extensively, so I advised them to take their time, to go slowly, to give themselves time to process the English they need, to check meaning and to work in English as much as possible, even though it takes more time. After an extended long pause, they switched to L2, but towards the end of the session switched back to heavy use of Japanese.

This highlights the need to at least prime, and perhaps even train students prior to commencement of the project, to take a slow and steady approach in the TL rather than a faster pace in their L1, as the latter would preclude many of the potential learning and

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practice opportunities and so reduce the scope and depth of L2 learning outcomes. It also points to the need to design projects so that they are easily manageable within the time available, in order to avoid inducing a sense of time pressure among students.

In section 5.2, I suggested that low English speaking proficiency might adversely impact the amount of spoken English that students produced. It seems that while all groups did use the TL to some extent, L1 was also widely used to overcome the students' relatively low L2 proficiency, which might otherwise have impeded their progress on the project. This finding of widespread L1 use concurs with that of Kemaloglu's (2010) study of perceived EFL gains through PBLL. However, on a more positive note, and in line with Cook (2001), student OE126 stated that L1 support from the teacher was actually beneficial to L2 learning: "I have been helped a lot because the teacher can support in Japanese, when only in English could be difficult".

Realistically, at this proficiency level, it is difficult to argue against the students' rationales. It should also be considered that, in terms of TL production, 50% of something is better than 100% of nothing. To what degree the comparative rates of Japanese and English usage found here affected their perceived EFL macro-skills development will be discussed in later sections of this chapter, while its impact on their perceptions of their EFL knowledge learning outcomes will be examined in Chapter 8.

The assumption implicit in PBLL's conception of practice that TL skills improve with interactive use was exemplified by Aki, who had home-stayed with a non-Japanese speaking family while attending an American high school for two weeks and reported that her English had "improved a lot". In addition, as a 12-year old, Nana, also in the Presentation group, twice went to the Philippines for two weeks to see her Japanese father who was working there. She had to use English to talk with the maid:

Paul: And when you spoke in English, was it difficult?

Nana: Difficult. My vocabulary was not enough. I was a sixth grade elementary school student at that time.

P: Ah OK and with that practice did you improve your English?

N: I learned.

Finally, the results indicate the degree of L1 and L2 use, but it would have been a useful follow-up question to the SPA form's item 11 to ask *why* students used their L1. That data could have helped me to develop strategies, activities and materials to counter the problem in the future. As such, investigation of when and why students use their L1 during project-work would be a useful area for future research.

7.5 Communicative TL use

One of the advantages of PBLL is that it provides a "situational context" (Eslava & Lawson, 1979, p. 65) within which students can use the TL authentically and communicatively to convey opinions, ideas, knowledge, suggestions etc., rather than simply to repeat a given target language point for the purpose of isolated grammar practice, as is found in methods such as Presentation-Practice-Production (PPP).

Item 8a on the SPA form asked whether the participants felt that they had used the TL communicatively during the project session. The item did not specify or differentiate between spoken and written TL language use, but it is assumed from the qualitative follow-up responses discussed below that the students' responses generally relate to spoken TL student-student and/or student-teacher interactions during project sessions. Table 7.8 and figure 7.8 give the results for this item.

Table 7.8: Results for SPA form item 8a: Communicative TL use

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	73	71%
		No	30	29%
P (*n=8*)	5	Yes	28	78%
		No	8	22%
OE (*n=6*)	8	Yes	35	76%
		No	11	24%
Total (*n=27*)	22	Yes	136	74%
		No	49	26%
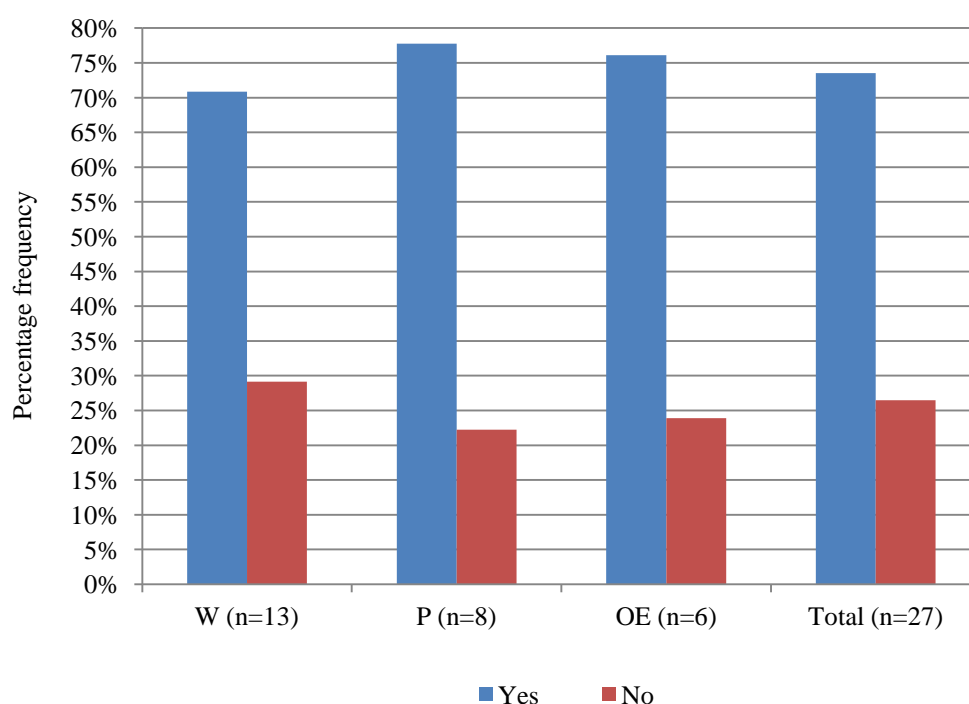
Figure 7.8: Percentage frequencies for SPA form item 8a: Communicative TL use

All groups responded in a large majority of cases that they had used the TL to communicate opinions, ideas, knowledge, suggestions, etc. That the negative responses constitute a sizeable minority might be explained by the results of section 7.1, which show that students sometimes worked alone, as well as those of section 7.2 which show that students were often reading and writing rather than speaking, and those of section 7.4

which show that even when they were speaking, students were often using Japanese rather than English.

The follow-up item 8b then asked students to describe the information they had communicated in English to give some insight into what they were doing with the TL. Each group had its own course-related project brief and each team created its own personalised topical response to their project brief, but some common discourse functions did emerge. Table 7.9 shows how the 80 qualitative responses collected in reply to item 8b were distributed across these various discourse functions. These are ranked by frequency of occurrence and divided by group. Note that some responses offered multiple functions.

Table 7.9: Ranking of TL use functions by group

| Rank | Function | Group | | | Total (*n=27*) |
		W (*n=13*)	P (*n=8*)	OE (*n=6*)	
1	Sharing organisational information	22	4	4	30
2	"Express my ideas.", "Suggestions."	17	2	1	19
3	"Exchanging opinions.", "Views."	5	13	1	19
4	"Asking.", "Questions."	6	0	3	9
5	"How to make a sentence."	6	0	2	8
6	"Talking in English.", "Discussing."	5	1	0	6
7	Meaning vague or unclear	0	0	2	2
	Total	61	20	13	94

There was almost certainly some crossover between these various functions. For example, it was often not indicated exactly what the "ideas", "suggestions", "opinions" or "views" that were exchanged related to. It seems likely that in at least some cases, they related to how to organise the team or content, which is shown as a separate function. So the separation of functions here is somewhat loose.

The most commonly occurring function of TL use is described as 'sharing organisational information', meaning that team members talked about things which in some way moved the project forward. In some cases, this was a need to make a choice, such as W109's "What story to choose". Decisions also needed to be made:

W114: We decided the division of roles between us.

P119: Who says what.

OE126: The order of the pictures.

Students also needed to resolve how they would work through a stage in the project:

W113: How to research and who researches what.

P124: About how the project would progress.

OE131: We discussed how we should present.

It seems that the projects not only gave the students ample opportunities to use the TL, as shown in section 7.3, but also that they used those opportunities to do exactly what anyone else would do to complete such projects: to exchange ideas and suggestions, views and opinions, to ask questions of each other (W107, OE127) and of the teacher (W116) and, above all, to organise and manage themselves, their work and their project's content. In other words they used English as any language is meant to be used: as a means of communication to get things done. This finding is in line with Stoller's (2002, p. 110) view that "[p]roject work leads to the authentic integration of skills and processing of information from varied sources, mirroring real-life tasks".

7.6 Speaking

So far in this chapter, the results have shown that students worked predominantly in groups, rather than in pairs or individually (section 7.1) and that there was substantial use

of all four language macro-skills during the projects (section 7.2). Furthermore, all three groups reported having ample opportunities to use spoken and written English (section 7.3), and that they often, though certainly not always used those opportunities to produce spoken English (section 7.4) to fulfil organisational and discourse functions to progress their projects (section 7.5). These results are interesting in and of themselves but they say little of the extent of the language skills development that students perceive to have occurred or which may actually have occurred. These results can however assist in interpreting and adding nuance to the study's primary results relating to perceived EFL learning outcomes.

Before looking at, and discussing the results for English speaking ability, it will assist the reader to understand how the students' perceived changes in their EFL skills and knowledge over the project period were measured. The pre- and post-project surveys' items 5-8 asked students to self-report their perceived proficiency levels in EFL speaking, listening, reading and writing respectively. Items 1-4 served the same function with respect to grammar, vocabulary, spelling and pronunciation respectively. Students responded to each item using a five-point Likert scale: Very good, Quite good, OK, Quite poor, Very poor, to self-report their proficiency level in each area.

To calculate perceived changes over the project period, the above Likert response options were assigned a numerical value of 1 (Very good) to 5 (Very poor). The numerical difference between each student's pre- and post-project Likert responses was then calculated as a positive or negative value. This value was then assigned a descriptive label: 'substantial', 'moderate' or 'slight improvement' for positive difference values, 'no change' for a difference value of zero, and 'slight', 'moderate' or 'substantial deterioration' for negative difference values. Table 7.10 shows this scale with examples.

Table 7.10: Scale for labelling degrees of perceived change in proficiency levels

Degree of change	Descriptive label	Example
An improvement of +3 Likert points or more	Substantial improvement	From Likert score 4 to 1 across a project
An improvement of +2 Likert points	Moderate improvement	From Likert score 4 to 2 across a project
An improvement of +1 Likert point	Slight improvement	From Likert score 3 to 2 across a project
No change	No change	From Likert score 3 to 3 across a project
A deterioration of -1 Likert point	Slight deterioration	From Likert score 3 to 4 across a project
A deterioration of -2 Likert points	Moderate deterioration	From Likert score 2 to 4 across a project
A deterioration of -3 Likert points or more	Substantial deterioration	From Likert score 2 to 5 across a project

To keep the narrative flowing smoothly here, results tables and figures are kept to a minimum. However, a full set of results' figures for this chapter are presented in appendix 14 and those for language knowledge (Chapter 8) are provided in appendix 15. Within each appendix, there are four sets of figures, numbered 1 to 4, each corresponding to a language skill or knowledge domain examined in this study. Within each set there are four figures, labelled 'a' to 'd', showing the results for:

(a) pre-project Likert self-ratings,

(b) post-project Likert self-ratings,

(c) perceived change between (a) and (b) (unadjusted for qualitative data) and

(d) perceived change between (a) and (b) (adjusted for qualitative data).

As the following discussion will show, the results presented in the 'c' figures needed adjusting to account for contradictory qualitative data provided by the participants via their SPA forms and post-project surveys. This quantitative/qualitative contradiction was

also noted in Simpson (2011). The adjusted results are presented in the 'd' figures and it is these results from which the study's findings and conclusions are drawn.

The figures will be referred to during the discussion. For example '1a' refers to the results figure showing the pre-project Likert self-ratings for speaking, while '5b' refers to those for the post-project Likert self-ratings for grammar.

The participants' respondent numbers are also shown in these figures to indicate at which level individuals placed themselves pre- and post-project and how each participant's perceptions changed across the project period. This both adds depth to the analysis and discussion, and helps the reader to follow the discussion.

Having explained how pre- and post-project quantitative data were used to generate results showing degrees of perceived change over the project period, those relating to students' self-reported levels of speaking ability can now be examined and discussed.

Item 5 on the pre- and post-project surveys related to English speaking skill and simply asked students to "rate [their] English speaking ability". The term 'speaking' is used here as a generalised construct, defined as the ability to produce comprehensible and appropriate TL output orally. It is not limited to, or allied with, any particular spoken discourse genre, though here it usually refers to conversation or discussion.

It was established in section 5.2 that these participants' prior school EFL learning experiences had likely done little to promote their English speaking abilities, focusing as they had predominantly on grammatical-lexical knowledge and intensive reading and sentential level writing skills rather than on developing speaking and listening skills. I also showed that what little EFL project-work a small minority had experienced at school had been conducted almost entirely in their L1. It is understandable then that it was not easy for these students to speak in English fluently or spontaneously.

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That students started the project with relatively poor perceptions of their English speaking ability is borne out by both quantitative and qualitative pre-project data. Figure 7.9 below shows that none of the participants with pre-/post-project matched paired survey data ($n=23$[5]) rated their English speaking as 'Very good' or even 'Quite good, but merely as 'OK' ($n=5$, 22%), 'Quite poor' ($n=14$, 61%) or 'Very poor' ($n=4$, 17%).
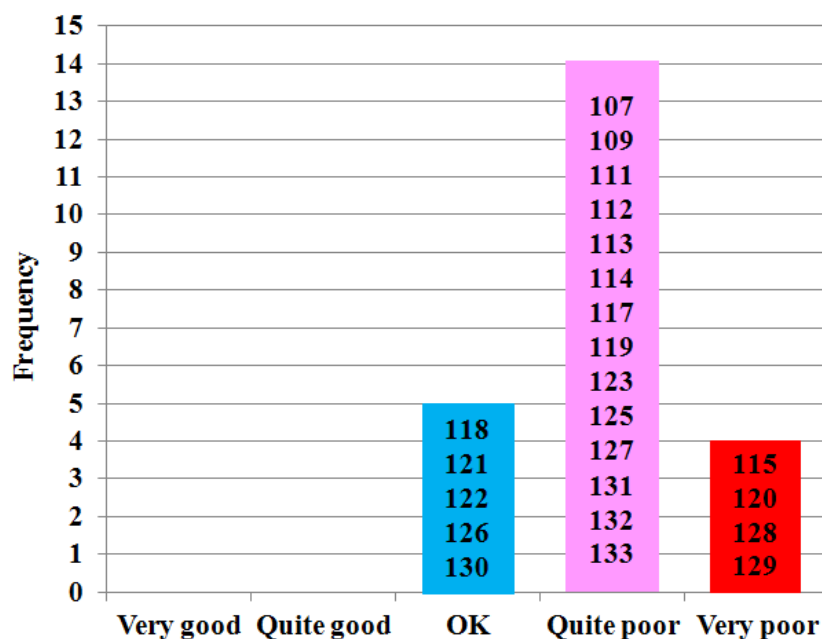
Figure 7.9: Frequency of pre-project ratings for speaking ability

Furthermore, comments in response to the pre-project survey's item 5 commonly took the form of 'can/cannot do statements'. Seven related to poor fluency, for example:

W112: I can only speak English slowly.

W115: I cannot state what I want to say.

OE126: I can speak only simple English.

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5 As footnote 2 on page 138 explained, of the 28 participants, W108 missed the pre-project survey, W110, P124 and P134 missed the post-project survey, and W116 missed both, so these five students did not have pre-/post-project quantitative matched pair data. They were therefore discounted from the *quantitative* analyses and results relating to changes in EFL macro-skills level in this chapter and EFL knowledge level in Chapter 8. Thus the sample size for matched pair results was reduced from 28 to 23. However any relevant *qualitative* data that they provided in the pre- or post-project survey which they did complete were still viable, so were included in the discussion where useful, as were their quantitative and qualitative SPA form data.

OE129: I cannot speak English fast and fluently.

Three others related to an inability to produce comprehensible output, for example P120 reported that "I can't make myself understood".

The reasons offered by students for their perceived low level of speaking ability attributed the problem to various causes. One was that they could not apply grammatical rules spontaneously (*n=3*), for example W110: "I cannot think about grammars when I speak. I use words only". For three others the cause was insufficient knowledge of vocabulary, for example OE131: "Sometimes no English words come to me and I can't say what I want to say". W111 cited poor pronunciation: "I'm not sure if I make and pronounce sentences correctly", while others simply described their spoken English as "poor" (OE128) or "broken" (P133). These explanations from the students themselves are indicative of a perceived, if not an actual lack of grammatical, lexical and/or phonetic knowledge and of a crisis of confidence in their English fluency at the outset of the project.

Over the study's eight-week period, the students attempted to speak in English to perform the functions discussed in section 7.5 and summarised in table 7.9. The extent to which the projects were perceived to have changed the students' initial self-assessments is shown in table 7.11 below and in appendix 14, figure 1c.

Table 7.11: Frequency of change levels in self-reported speaking ability

Group	Slight improvement	No change	Slight deterioration
W (*n=10*)	3	5	2
P (*n=7*)	2	4	1
OE (*n=6*)	3	1	2
Total (*n=23*)	8 (35%)	10 (43%)	5 (22%)

Prima facie, it seems from the quantitative results that there was a perception of slight improvement in speaking ability for only eight participants. To add more detail to that result, by comparing the participant numbers shown in appendix 14, figures 1a and 1b, it is shown that four students had moved from 'Very poor' to 'Poor' (W115, P120, OE128 and OE129) and that the other four had gone from 'Quite poor' to 'OK' (W112, W113, P125 and OE131).

However, five others reported a slight deterioration in their speaking skill: W111, who slid from 'Quite poor' to 'Very poor', and **W118**[6], P121, OE126 and OE130, who went from 'OK' to 'Quite poor'. It seems unlikely though that those who spoke English would actually deteriorate in speaking proficiency, so how might this perception be explained?

Although the results in section 7.2 suggest that L2 speaking was used quite extensively, those from section 7.4 show that students spoke no English in 2% of cases, more Japanese than English in 25% of cases and that another 35% spoke English only half the time. As I highlighted in my field observation notes: "Frequent encouragement is needed to get these students to use English". It is conceivable that some individuals used little or even no English throughout their entire project and so feel that they did not improve. However this should have returned a result of 'No change', so does not explain the perceived *deterioration* reported by five students. Since this phenomenon occurred in most of the eight language domains investigated in this study, it seems important to try to account for it.

One explanation might come from Mori (2008), who noted that some of his undergraduates perceived deterioration in their English which they attributed to their own

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6 In Chapters 7 and 8, participant numbers shown in bold typeface indicate those who made qualitative statements of improvement which directly and strongly contradicted their quantitative results showing no change or deterioration. Highlighting in this manner is intended to assist the reader in following the changes detailed in the discussion.

lack of interest and ability in EFL and poor preparation for classes. So in that study the perceived linguistic deterioration was ascribed to affective factors and perceived poor study practices, rather than an *actual* deterioration in EFL proficiency. The same might be the case here. Seeing others use English while they did not or could not, might have resulted in some students rating themselves more negatively post-project than they had pre-project. Statements offered in response to the post-project survey's item 5 show that some students found it difficult or impossible to speak English because it made them "anxious" (W114) or "nervous" (W113, P119 and P125). Two statements in particular seem to support this hypothesis:

P125: I'm depressed when I fail in making myself understood.

and from Ayaka's pre-project interview:

I cannot express my feelings the way I want to, so it is very difficult, so I get frustrated sometimes.

Others simply stated that they had had "difficulty" in speaking in English (W107 and OE128). These data could explain, at least in part, why some students reported that their English speaking ability had deteriorated despite attempting to participate in an EFL learning project.

An alternative hypothesis might be that those who report deterioration would be those with the highest rates of absence, since these would be the students with fewest opportunities to practice. However, by comparing the participant numbers and dates on the returned surveys and SPA forms with the attendance records, it was possible to deduce that the five cases who reported deterioration in English speaking ability (W111, **W118**, P121, OE126 and OE130) were actually those with perfect or near perfect attendance. It might be then that those more susceptible to the affective downturn described above are

among the more earnest and motivated students, who seem to rate themselves more strictly than those with less invested in the course or their EFL learning.

Another explanation might be that the results are to some degree inaccurate. Making an on-the-spot, subjective judgement as to their ability to speak English has its limitations. Affective variables, emotional or physical condition, or the frequency of positive (successful) or negative (failed) experiences in using the TL might all affect a participant's response, so there is some degree of instability inherent in this form of data collection.

However, the results were far from exclusively negative. Even among the ten students for whom the quantitative analysis suggests that no perceptible change occurred, there were qualitative data for **W114**, **P119**, **OE127** and **P133**, discussed below, to suggest that it had. The post-project survey and interviews yielded statements which clearly indicate perceived development in English speaking skill among some participants. Two simply offered general statements of improvement: "My conversation skill has improved since I have been speaking with a native teacher" (W112) and "I tried to speak and write English in class so I think the project has improved my English speaking and writing" (**P119**). Other statements were more specific regarding the ways in which project-work had enhanced particular linguistic or affective aspects important for speaking in a foreign language. In the case of two students, it was the perception of improved fluency: "I can improve my English fluency as well as knowledge" (**P119**) and "My speaking seems faster" (**W118**, whose quantitative result showed 'Slight deterioration'). For three, it was a stronger willingness to communicate in English:

W113: Even though my speaking is not sufficient yet, I have become willing to speak English.

OE127: Now I try to speak English with others.

P133: I got used to speaking in front of many people.

As previously mentioned in section 7.3, there may also have been an awareness among the students of the important role that opportunities for practice have to play in skills development, as OE130 demonstrated: "I learned that you don't know unless you actually speak and use English". Student OE131 concurred, whilst also stating the perception that they had improved their ability to express their ideas in English: "By not only knowing a meaning of a word, but also using it, I could learn how to express myself". This latter sentiment was also offered by two others:

> OE128: I learned different ways of expressing in English by speaking. I have started to understand how to converse with simple sentences by asking questions and expressing my opinions. I was able to learn a lot as I talked to the teacher. It is really informative and fun.

> **P133**: I learned to explain something in simple English as well as learn difficult words.

These statements go some way to validating PBLL's conception of practice because they show that these students view their perceived EFL speaking development as a direct consequence of their EFL interactions.

Participant **W114** wrote that "I think we learn speaking and listening more because we don't take notes". I interpret this as being somewhat related to the above statement by OE130 regarding the need for practice in that **W114**'s statement suggests that they view practice as more useful in skills development than the chalk-and-talk, heads-down, note-taking, rote-learning qualities which Chapter 2 and section 5.2 suggest seem to have been the mainstay of prior EFL learning experiences for many of these students.

For several reasons, the survey-based qualitative data presented above seem more reliable than the associated quantitative results. Firstly, there is the potential phenomenon of affective downturn described previously. There is also the possibility that it takes more

time and effort to write a comment, even in L1, than to provide a (possibly less considered) response to a Likert scale item. Finally, while the pre- and post-surveys' quantitative items were very general in nature, some of the qualitative items were much more targeted towards specific aspects of language skills. For these reasons, where there is a conflict between a participant's quantitative results and qualitative data, the latter is considered more reliably indicative and so is accepted here. While this conflict highlights a potential problem inherent in subjective self-rating as discussed in Chapter 4, it also exemplifies one of the potential benefits of mixing quantitative and qualitative data in linguistics research: that one can act to verify or refute the other.

The post-project interviews also yielded evidence of perceived speaking skills development, such as these from the OE group:

Azusa: At high school, I had no intention of speaking English, but now I can motivate myself to speak English.

Ayaka: Before, yes I did like English, but I couldn't speak and there were many things I didn't understand, but when I entered university and started to learn English in this course, I feel I began to understand a little more.

These qualitative data from the post-project survey and interviews highlight the influence and importance of both the linguistic and affective components involved in successfully developing and using a foreign language.

If it is assumed that using a skill to some extent works towards developing that skill, then beyond the overt statements of speaking skills development presented above, there is also evidence of skills use which might lead to development. For example, English was often the language through which the students attained new TL knowledge, as this observation during an OE class highlights:

[s]tudents asked *dozens* of questions in English for help with their English. REALLY good progress writing their infomercial scripts. They applied several phrases, for example how to introduce and close the infomercial.

They were using the TL to learn new English lexis which they then applied immediately to their project. Beyond suggesting skills development, that students asked so many questions in English perhaps also evidenced a growing confidence to use the TL, which would seem to be an important affective component contributing to speaking skill development.

Similarly, English was often the language through which students asked and learned about the topical knowledge they needed for their project. For example, this observation from my field notes was made in the Writing group:

Hana's team is writing a news story about the nuclear accident at Fukushima and didn't know how the reactor worked. I saw an explanation on the news last night so explained it to them in L2 with the use of a diagram they'd taken from the internet.

Also, with the OE group's *Healthy Living* infomercial, one group needed information on exercise as part of a healthy lifestyle. My Bachelors degree is in Sports and Exercise Sciences, so I was able to provide the information they needed through questions, answers and clarification in English.

Another opportunity for speaking skills development arose when all groups had to rehearse their news stories, infomercials or presentations, during which time each student practiced their part. I monitored the rehearsals and offered corrective feedback at the sentential level and formative feedback at the discourse level, as with the OE group:

Rumi, Yuko and Momoe practiced their infomercial script while Ayaka, Azusa and Kotaro finished writing theirs. I helped both teams with their discourse level English in terms of introducing their infomercial's contents at the start.

It could therefore be claimed that the projects may also have been successful in developing the participants' speaking skills because they were perceived to have developed fluency, defined by Richards, Platt & Platt (1992, p. 141) as:

> the features which give speech the qualities of being natural and normal, including native-like use of pausing, rhythm, intonation, stress, rate of speaking, and use of interjections and interruptions.

Each student took and rehearsed a speaking part. In the Writing group's news stories they became a news anchor or 'expert' in the studio, or a reporter or eye witness on the scene. In the OE group's TV infomercials they became a television presenter and in the Presentation group's PowerPoint presentations, each student presented one part of their group's presentation. These parts, though scripted, can work towards developing students' fluency in speaking, which was a primary objective for the Oral English and Presentation courses. That they relied heavily on their scripts rather than using the TL more spontaneously was due partly to their low levels of EFL speaking proficiency and confidence in speaking English, but also to the project brief's requirement for them to write a script, which might *prima facie* be considered counterproductive in developing TL speaking proficiency. The implication is that project briefs need to be constructed with a course's learning objectives foremost in mind to ensure that the former works towards the latter.

In summary, the quantitative results for self-reported speaking ability seem somewhat disappointing at first glance, especially when compared to Simpson's (2011) study which with a very similar sample size found statistically significant actual gains in EFL speaking among Thai university students. Almost half of the students here reported no change, with the remainder essentially split between reporting a slight improvement or a slight deterioration. These results are however slightly misleading because in five cases with

quantitative results indicating no change (**W114**, **P119**, **OE127** and **P133**) or slight deterioration (**W118**), their qualitative statements above made it clear that they felt they had actually improved in some aspect of English speaking to some extent. This quantitative/qualitative contradiction was also observed by Simpson (2011). If these are added to the eight citing slight improvement, this brings the total number of cases reporting some degree of speaking skills development to 13 (57%) (appendix 14, figure 1d). The finding that PBLL is perceived by students to develop their EFL speaking skills supports that of Simpson (2011), though in common with Kemaloglu's (2010) findings, widespread use of the students' L1 likely reduced the magnitude of those perceived gains. However, much of the qualitative support for perceived speaking skills development related more to affective than linguistic variables, though this does highlight the importance of affect in generating positive (and likely also negative) perceptions.

Students' reliance upon scripts during the projects' output phase also suggests that in most cases the project may have done little to improve students' ability to speak English spontaneously above their baseline level. On the other hand, as Skehan & Foster (1997) noted, the projects did give students ample planning time, which lightens the cognitive load of spontaneous oral output and may ultimately help students to become more spontaneous speakers as their language ability develops.

The lack of spontaneous output can largely be attributed to three causes. The first is insufficient pre-project instruction from the teacher to develop students' speaking and listening skills and relevant lexical-grammatical knowledge. Had more time been taken before starting the project to create and consolidate a stronger TL foundation through other pedagogic approaches utilising more overt instruction and practice, students may have been able to produce spoken English more often and more confidently. The absence of such a foundation led to the second cause: students' excessive use of their L1 during the

project. Finally, the project design permitted, encouraged or even required certain practices which, rather than promoting, eliciting or reinforcing desired language learning outcomes, were likely somewhat counter-productive. These three causes highlight the importance of adequately preparing students for the demands of an upcoming project and of designing projects which are clearly consistent with course goals.

However these conclusions are somewhat mitigated by positive reports from several students. It should also be remembered that PBLL emphasises learning during and through the *process* of completing the project, rather than on the quality of the final *product* itself, as the former is where the majority of learning occurs (Stoller, 2002, p. 110).

Finally, during these projects two common student practices came to light which needed addressing in order to promote and develop speaking skills. Firstly, the field observation notes often highlighted many participants' tendency to use their dictionaries as a first resort to check translation equivalents, meaning, pronunciation or spelling. Each use of the dictionary was a lost opportunity to practice EFL oral and aural skills through classroom English with other classmates or the teacher. I therefore made a class rule that if students needed to check a dictionary, they first had to ask a classmate using classroom English. Failing that, they had to ask me, their teacher. Only after these avenues had failed to provide an answer would it be acceptable for the student to use their dictionary. This generated more spoken English.

The second poor practice which participants often fell back on and which reduced their opportunities to practice speaking and listening was the use of 'rock-paper-scissors' (*janken*). In Japan it is often used as a fair way to make low-stakes decisions since everyone has an equal chance of winning or losing. My field observation notes show that from the outset, I banned the use of *janken* during classes in order not only to generate more spoken English in the form of discussion, but also to develop critical thinking,

decision-making and problem-solving skills and a greater sense of personal responsibility. These are all potential outcomes commonly associated with PBLL (see section 3.4).

7.7 Listening

As with the preceding section, a construct definition is helpful at the outset, so adapting Richards et al (1992, p. 216), here I view 'English listening ability' and 'English comprehension ability' simply as the capacity to understand spoken English.

As figure 7.10 below shows, the students were a little more confident in their English listening ability pre-project than they had been with their English speaking ability (figure 7.9), though those with negative self-evaluations still outnumbered those with positive perceptions.
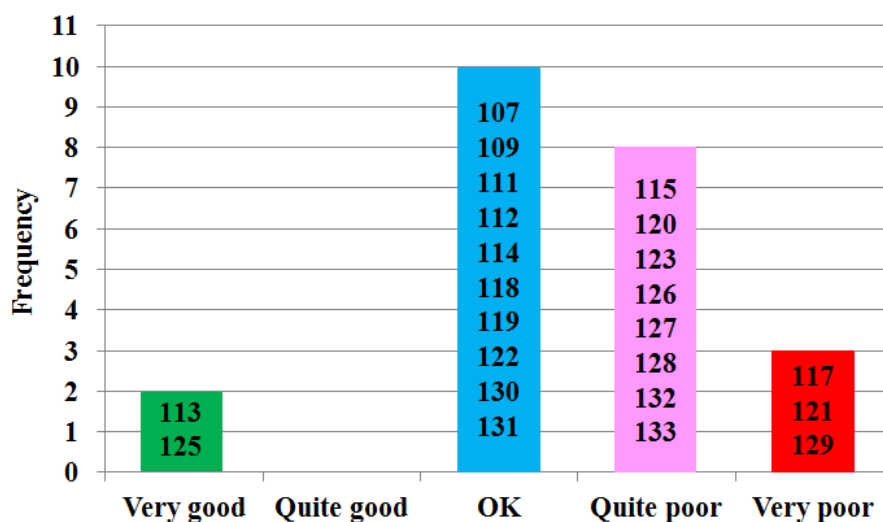
Figure 7.10: Frequency of pre-project ratings for listening ability

Prior to the project, most students stated that they found comprehension of spoken English difficult, especially if the speed of speech was relatively high, as encapsulated by OE126's response: "I can't catch fast English so well". The reasons given for their perceived low level of English listening ability varied. W115 cited a lack of grammatical and lexical knowledge, while W110 attributed it to an inability to concentrate and OE129 found it difficult to distinguish between phonologically similar words. These comments seem to

suggest that each student had individual strengths and weaknesses in EFL listening comprehension, perhaps partly as a result of little time having been given over to developing listening skills during junior or senior high school EFL lessons, other than occasional classes with an ALT, as the pre-project interview data presented in section 5.2 showed. The above results show that most of the students found English listening difficult.

A few students though were more confident in their English listening. For example P119 stated that: "I can catch slightly fast English sentences" and W114 could understand at the level of gist or topic, though not always so well at the level of specific information: "I understand the outline but sometimes I don't understand details". P125 seemed the most confident: "I'm good at listening but can't answer in English". This indicates a range of English listening proficiency among the participants, which was borne out through my interactions with them during the semester.

It was from this starting point that students worked through their two month long EFL projects, during which the reported changes in their English listening ability, shown in table 7.12 below and appendix 14, figure 2c occurred.

Table 7.12: Frequency of change levels in self-reported listening ability

Group	Moderate improvement	Slight improvement	No change	Slight deterioration
W (*n=10*)	1	2	5	2
P (*n=7*)	2	2	3	0
OE (*n=6*)	1	3	2	0
Total (*n=23*)	4 (17.4%)	7 (30.4%)	10 (43.5%)	2 (8.7%)

As with English speaking ability in section 7.6, the most frequently occurring result was 'No change' (*n=10*, 43.5%). Of these, two cases were W113 and P125 who had already rated themselves as 'Very good' so could not indicate further perceived improvement.

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Seven other cases (W107, W111, **W112**, **W114**, P119, P122 and OE131) remained 'OK' and only one remained 'Quite poor' (**OE126**).

The high rate of no change is perhaps not surprising given that during the project period the students only had 90 to 180 minutes of contact time per week for only eight weeks, which may not be sufficient to see more substantial levels of perceived gains. Indeed only half of this time was allotted to project sessions, as roughly the first half of each class was given over to more overt, though related EFL instruction. However, it is not possible to tell to what extent any changes in English listening ability were attributable to either part of the lesson. Another explanation for the high frequency of no change responses is that, as section 7.4 shows, the use of Japanese over English was commonplace. Both of these explanations would have resulted in reduced exposure to spoken English and therefore fewer opportunities to develop their English listening skills.

Also in common with section 7.6, there were some cases, W109 and W118 (8.7%), who reported a slight deterioration in their English listening ability. W118 stated in her post-project survey that: "I don't think my listening has improved". This could be attributed either to an initial overestimation of their listening proficiency and/or to affective factors causing them to re-evaluate their listening ability level more harshly post-project than they had pre-project. The finding in section 7.6 that those who reported a perceived deterioration in English speaking skill were also amongst the best attending and/or perhaps more susceptible to affective downturn was supported here, as W109 and W118 both had 97% attendance and W118 also reported a perceived slight deterioration in English speaking ability.

By way of explanation as to why they perceived that their listening did not improve more, some students provided additional qualitative data, for example:

W117: I sometimes had difficulty understanding because we always used English.

OE126: I have gotten used to the speed but I still don't get the meanings.

These suggest that grammatical and lexical range were still an issue. These statements do however indicate that the students were to some extent speaking in English and that this worked towards improving their listening speed, at least in some cases.

Another measure of the students' listening ability was the extent to which they could understand their team members' spoken English during project sessions. Item 9a on the SPA form therefore asked if students had had any problems in this area. As figure 7.11 below shows, of the 177 responses to item 9a from the 27 participants across all three groups and all project sessions, 155 (88%) of cases reported problems in English comprehension.
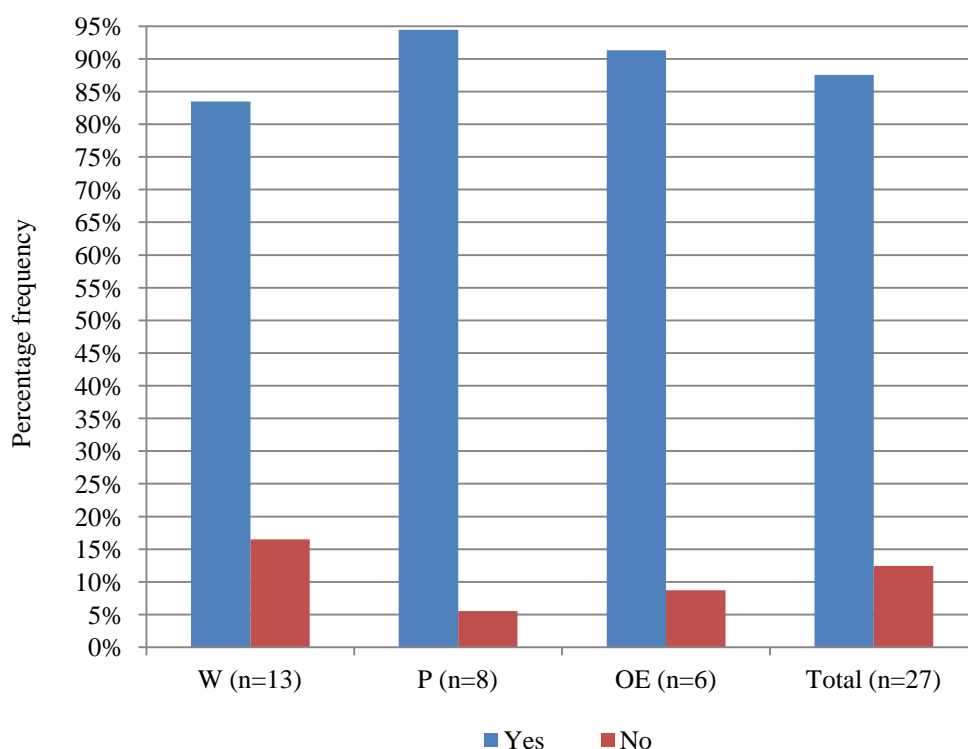
Figure 7.11: Percentage frequencies for SPA item 9a: Comprehension problems

This high rate might be expected, firstly because of the relatively low level at which many of the students initially rated themselves with respect to their English listening ability, but also because if, as the preceding section suggests, some of their teammates were not very good at speaking in English, then the spoken English produced would at times likely be grammatically, lexically and/or phonetically inaccurate, and therefore more difficult to understand. Though not noted on the field observation form, this description does characterise much of their spoken English.

With such a high rate of comprehension difficulties among student-student interactions, it seems likely that many of the participants could have viewed listening to their teammates' English as unhelpful in developing their own English listening proficiency, though no statements to that effect were actually made.

On a more positive note, seven participants (30.4%) reported a slight improvement on their initial rating, of which six had started as 'Quite poor' or 'Very poor'. A further four (17.4%) reported a moderate improvement, two from 'Quite poor' to 'Quite good' (W115 and P120) and another two from 'Very poor' to 'OK' (P121 and OE129) (appendix 14, figures 2a and 2b). Also, when asked in the post-project survey (item 36) which language skills in particular they felt they had improved, seven (26%) indicated listening. Statements in support (*n*=3) show that the improvement was, for some at least, due to the high level of exposure to spoken English over an extended period:

> OE129: I have come to understand because we always speak and listen to English.

> OE130: It is hard, but I can hear English a lot so my listening improves.

However, the students were listening both to their peers' English and to the teacher's. Three post-project survey responses identified the importance of the latter:

W112: I have gained [listening ability] gradually [and] become able to understand what the native teacher says.

OE128: [My listening improved] because I wrote a lot and listened to the teacher.

P133: I tried to listen to the teacher's English.

Similarly, in her post-project interview, Sayaka of the Writing group commented: "We can do many different things simultaneously like listening as the teacher talks". It might be then that for some students, chances to practice listening to their native English-speaking teacher was a stronger contributor to their perceived improvement of English listening ability, especially if as suggested above, they considered their peers' spoken English to be at times grammatically, lexically and/or phonetically inaccurate.

W114 explained that another reason for feeling that her English listening ability had improved was the pedagogic practice of using the TL communicatively rather than simply taking notes verbatim, as might have been common practice at her school: "I think we learn speaking and listening more because we don't take notes".

Working to improve their English listening ability may also have contributed towards some students becoming more active listeners in general. For example, by improving her English comprehension, **OE126** reported that: "I got the ability to think about the meaning of what other people are saying". I interpret this as not merely understanding an interlocutor's semantic meaning, but also reflecting upon what it is that the interlocutor is really trying to say or infer.

Some general statements regarding PBLL provided on the post-project survey not only hinted at improved English listening ability, but also evidenced a raised awareness, or 'socialisation' of the integrated nature of EFL project-work, the holistic nature of language itself and thereby of the potential language learning benefits of PBLL:

W113: [Project-work] is helpful for practicing all the skills of listening, writing, speaking and reading.

P125: In projects we can practice writing skill to draft and listening skill to listen to introductions of other groups.

OE129: We can practice all in one, spelling, speaking and listening.

and from the Writing group's post-project interview:

Sayaka: We can do many different things simultaneously like listening as the teacher talks.

Given that section 7.2 showed that 77% of cases reported that they had practiced listening to English during project sessions, it might be surprising that only 11 cases (47%) reported improved English listening ability. However, the number of students who may have improved their EFL listening is likely higher because, as with perceived speaking development in the previous section, some students' qualitative data contradict their quantitative results. **W112**, **W114**, and **OE126** all show no quantitative change but subsequently made statements reported above which hint at some level of improvement. If these are added to the tally of students reporting development in listening, the total increases to 14 (61%) (appendix 14, figures 2c and 2d). However, even with this taken in to account, these results do suggest that for more students to perceive greater gains in this area, exposure to spoken English (i.e. listening practice) needs to be extended beyond the relatively few contact hours available in these courses, and also that it should be more sustained rather than piecemeal and fragmented due to multiple absences, weekends, holidays and the wider EFL (as opposed to ESL) setting within which these students live and study. W114 hinted at an understanding of this need when they wrote: "Practicing listening is important to improve listening ability".

The implication, supported by these data and results is that in reality, a single short-term EFL project in one course of study is unlikely to significantly improve most low-level students' English listening ability and that extensive and longer-term exposure would be needed, especially in EFL settings such as Japan. Simpson (2011), whose 16-week long project found statistically significant actual gains in listening proficiency, might be a case in point.

7.8 Reading

So far, I have focussed on oral and aural skills, but here I turn to the written word and examine how these EFL projects were perceived to have developed students' reading ability. For the purpose of this study, I have adapted the definition of 'reading' provided by Richards et al (1992, p. 306) and define English reading ability very generally as the capacity to comprehend the contents of texts written in English. This simplified definition overlooks the distinctions made by Richards et al (1992, pp. 306-307) between silent and oral reading, and between literal, inferential, critical/evaluative and appreciative comprehension. This generalisation is preferred because neither the data collection tools nor the students themselves made these distinctions during the study's data collection stage.

To underscore a point which has already been made, these students' prior school EFL education focussed primarily on developing reading and writing skills at the expense of enhancing speaking and listening proficiency: "In junior high and high school we only read and wrote the English in the textbooks, which I didn't find interesting" (W115). Sayaka, Makoto and Noriko in the Writing group and Sao in the Presentation group all highlighted this same imbalance during the pre-project interviews. The interview with Ayaka and Azusa from the OE group did not touch directly upon which language macro-skills predominated in their school EFL learning experiences. However, references

that they made during that interview to the strong dominance of grammar, vocabulary and pronunciation in their EFL classes, together with their statements of very extensive use of L1 by their Japanese teacher of English, do hint at a more 'traditional' EFL classroom akin to the experiences reported by most of the other interview respondents. Given this apparent prior emphasis on reading, it would be reasonable to expect these students to rate their English reading ability comparatively highly at the projects' outset.

Statements from the pre-project survey do show some confidence among a few students that they can "read fast" (P134), "read most of the contents" (P119), "[read] long texts" (P121) or comprehend written English "if it is written in words I know" (OE126). W118 however was more circumspect: "Probably I maintain my ability". The majority of comments (*n*=8) however indicated less confidence through phrases such as "I'm a little bad at reading" (OE130), "My level is not good" (P124), "I don't understand a lot" (W117) and "Not good at it" (W112). As figure 7.12 below shows, these comments closely match these students' Likert scale self-ratings when placed on a continuum from positive to negative.
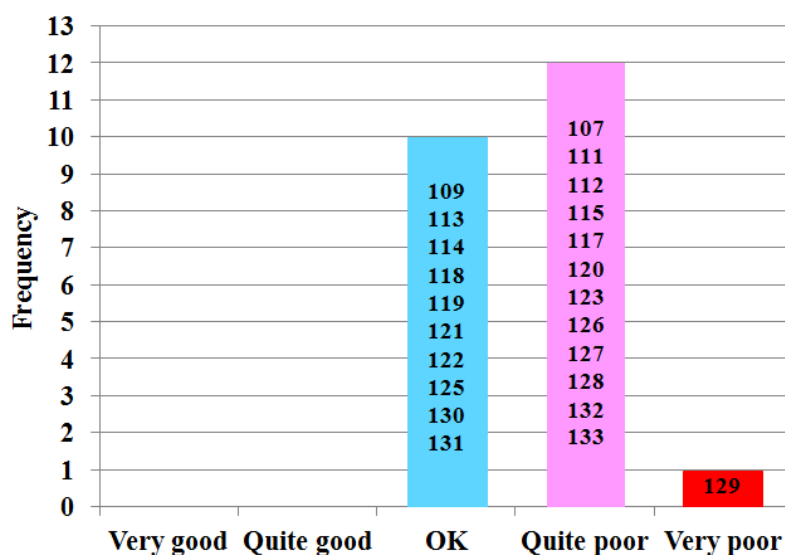
Figure 7.12: Frequency of pre-project ratings for reading ability

W132 was able to relate her reading ability to the college library's graded readers' grading system when she wrote "Reading level A", which is equivalent to approximately 400 headwords, which is low-level. Two other participants (W111 and P125) stated that even though they could read the words, they often could not grasp a text's meaning, which I take to mean that they could understand individual words but not the sentential level meaning. The only reason forthcoming for this lack of confidence in their reading ability indicated limited grammatical and lexical resources as the root of the problem:

> W110: I cannot understand if the sentence is too long.
>
> W115: I don't understand grammars and words.

This lack of confidence is perhaps understandable with respect to the first year OE group, who at this point had only just started their college associate degree program and so had only their school EFL reading experiences to fall back on. Indeed as figure 7.12 above reveals, all six OE students, participant numbers 126-131, were in the 'OK' to 'Very poor' range. However, it is disappointing with respect to the second year Writing and Presentation groups because by this stage in their program they would have been required to have read at least 120,000 words through extensive reading in English with the library's graded readers. Despite this however, they rated themselves merely as 'OK' or even 'Quite poor'.

During the projects, students had various causes (i.e. opportunities) to practice their English reading. Firstly, their project's brief and any related teaching materials were all written in English. To aid comprehension, we always went through the contents together when they were handed out, and occasionally the students would have had to refer back to them independently during their project. Next, students needed to research and gather relevant information for their project, though much, if not most of the reading done during this research phase was in Japanese. Paradoxically perhaps, this in itself was not a major

concern since developing reading skills was not a stated learning objective in any of the three courses and for pragmatic reasons related to limited contact time, students' comparatively low reading speed and a need to maintain interest, I had conceded the need to let students research in Japanese *if necessary*. However, some research reading was done in English, as evidenced by my field observation notes in the projects' earlier stages: "Some students have printed out English information from online for homework" and "[t]he research information that Daisuke brought in for homework is good but the English looks tricky". After writing their scripts, they also had to check their drafts, then proofread their own writing and that of other members in their team and revise them based on corrective or formative feedback and leading questions from myself. In addition, as mentioned in section 7.6, the students read their scripted lines during the video recording stage. Finally, during the PowerPoint presentations, the student audience presumably to some extent read the English slides projected onto the screen, and indeed some students did ask questions during the presentations' question and answer sessions based on content contained within the slides. The degree to which these various reading activities and opportunities were seen as developing their reading ability is presented below in table 7.13 and appendix 14, figure 3c.

Table 7.13: Frequency of change levels in self-reported reading ability

Group	Moderate improvement	Slight improvement	No change	Slight deterioration
W (*n=9*)	0	2	7	0
P (*n=7*)	0	3	3	1
OE (*n=6*)	1	2	3	0
Total (*n=22*)	1 (4.5%)	7 (32%)	13 (59%)	1 (4.5%)

One of the 23 participants who completed both the pre- and post-project surveys did not respond to item 7 asking them to rate their reading ability, thus reducing the sample size to 22. Of these, 13 (59%) reported no perceptible change and so remained 'OK' (*n=4*) or

'Quite poor' (*n*=9) (see appendix 14, figures 3a and 3b). One other (W122) (5%), felt that her reading skill had deteriorated slightly, though she had 100% attendance, further supporting the idea that some of the more motivated students rated themselves more strictly than others or were more sensitive to affective downturn. Also, when asked by the post-project survey's item 36 which language skills they felt they had developed, only three students (14%), **W118**, P123 and OE126, actually reported that their reading ability had improved, though the results in table 7.13 show that another five could have done so.

It was shown in section 7.2 that students reported reading in English in 62% of cases across all groups and all project sessions. This seems high given that only eight students (36%) reported any level of improvement. To this though can be added **W118** who, despite showing no perceptible improvement quantitatively did report qualitatively that she had improved her reading ability, bringing the total to nine (41%) (see appendix 14, figures 3c and 3d). This slight perceived improvement overall is disappointing but perhaps not surprising for three reasons. Firstly, Kemaloglu (2010) also found that PBLL improved her students' perceptions of their reading ability but that the number of such reports might have been higher had they read more widely in English rather than their L1 (Turkish). In light of the results shown in section 7.4, the same likely seems to be the case here. Secondly, as with other language skills, reading takes time to develop and the limited contact time spread over only the eight weeks available for this project may not have been sufficient to perceive any improvement, even with the wide range of reading activities listed above. This may be why Simpson (2011) found statistically significant actual gains using a 16-week long project, double the length of those used here.

As with listening practice in section 7.7, there is also the possibility that some students perceived their own writing, or that of their peers, to be flawed, as it often was to some extent, to the point where they felt that it did not offer quality practice helpful in

developing their reading skills. This may be a contributing factor among the 59% who perceived no improvement.

The volume of qualitative data related to reading gathered via the SPA form and the post-project survey was very small. Unless asked specifically about reading, it seems that it was not at the forefront of the students' consciousness when reporting language skills development outcomes. Perhaps this was because, as stated above, improved reading proficiency was not a formal learning objective for any of the courses and so was not particularly emphasized.

An implication of the above pedagogic decisions and results is that, where developing TL reading skills *is* a course objective, teachers need to consider carefully how much access students should have to L1 information sources. For teachers seeking to improve reading skills among low-level students through PBLL, one way to resolve the tension between the competing needs for L1 support and maintaining interest and pace on the one hand, and the demand for English reading practice and comprehensible input on the other, might be to produce their own course- and level-specific materials for each project, though it is acknowledged that this would be quite time-consuming.

7.9 Writing

The final language macro-skill in this chapter is that of writing which, in line with my generalised definition for speaking, is defined here as the ability to produce language in written form. It is not limited to, or allied with, any particular written discourse genre or medium such as paper or digital files.

Item 8 on the pre-project survey collected data on the participant's self-reported writing ability. Analysis showed that despite the strong emphasis on writing instruction and practice in their school EFL classes revealed during the pre-project interviews, these

students were not confident in their writing ability (see figure 7.13 and appendix 14, figure 4a). Fewer than half (*n=12*, 46.1%) felt that their ability to write in English was merely 'OK', while the remainder rated themselves even lower at 'Quite poor' (*n=10*, 38.5%) or 'Very poor' (*n=4*, 15.4%).
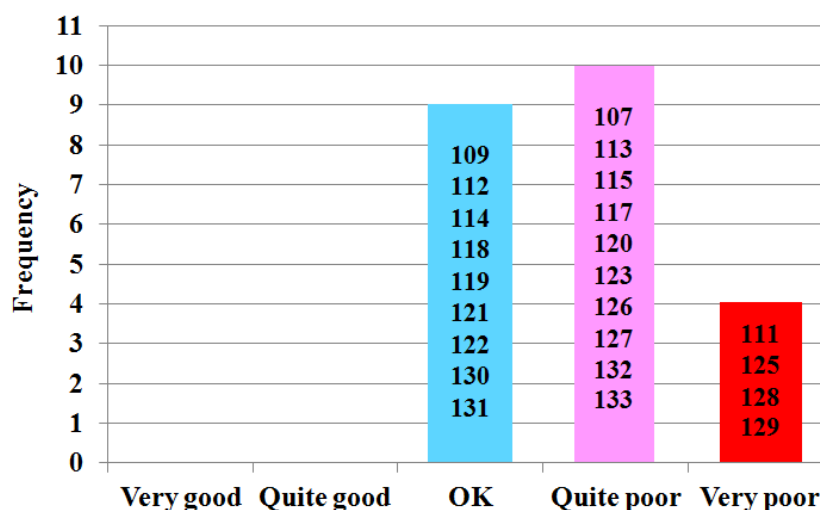
Figure 7.13: Frequency of pre-project ratings for writing ability

In keeping with their comments relating to the other skills discussed in sections 7.6 to 7.8, the majority of remarks (61%) were negative in nature. Some simply described their inability to write in English: "I'm a bit bad at writing" (W107), "I make efforts in writing, but it's not good" (W113) and "I don't understand a lot" (W117). Two others (W110 and P125) noted more specifically that they "can't make sentences" in English. The reasons put forward by the participants point to a lack of confidence in grammar:

W109: I'm sometimes not sure if my grammar is correct.

W111: Especially grammar is difficult.

Others highlighted poor lexical range as an issue:

P124: I can't sometimes understand words.

Another saw both grammar and lexis as problematic:

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P120: I cannot understand because I don't understand grammars and words.

This uncertainty as to whether or not they are applying certain grammar points and/or vocabulary properly suggests that they may have studied and/or practiced English as decontextualised knowledge with a focus on accuracy and did not have sufficient opportunities to use them meaningfully earlier in their EFL education. Furthermore, the preoccupation of these students with sentential level issues while simultaneously showing little or no awareness of wider discourse level concepts supports the idea that their school EFL education focussed more on the former at the expense of the latter. Such a situation would correspond closely with my own perceptions and experiences as a junior high school ALT in Japan between 1996 and 1999.

However, seven students were to varying degrees more upbeat about their English writing ability. W118 wrote that "I might make small progress", while three students (W114, P121 and P123) reported that they "like" or "enjoy" writing in English, though they did not explain why. Two others (OE126 and P119) stated that they could write "easy sentences", which I would interpret as generally single clause sentences. The most confident report came from W112: "I can write sentences that are generally easy to understand", though this may simply mean that s/he uses very basic language.

Speculating on why these participants rated their writing level so modestly, several explanations are likely. The first three relate to their knowledge of grammar, vocabulary and spelling, but since these are discussed in detail in sections 8.1 to 8.3 respectively, I will bypass them here except to say that each presents its own challenges for Japanese EFL learners.

Another reason might be that, as noted in section 2.3 and supported by pre-project interview data, much of their school EFL instruction seems to have relied heavily on

traditional EFL methodologies such as grammar-translation (*yakudoku*), PPP and other grammar-based practice tasks such as word order rearrange and multiple choice gap-fill activities. They seem to be commonplace in Japanese school EFL classrooms, perhaps because they are formats commonly used in high school and university entrance exams. However, they likely do little to aid SLA because they do not require the learner to use the TL in ways that mimic holistic or communicative language use in the real world. They also do little to familiarize learners with correct usage of all but the most basic punctuation, which is so important in conveying intended meaning when writing (Truss, 2003). Finally, as noted in Chapter 2, EFL instruction in writing at public Japanese schools does not generally extend to discourse level concepts such as textual discourse patterns, cohesion, organisation, sequencing or providing support.

In summary, these participants often have difficulty writing in English due to problems with spelling, vocabulary, grammar, punctuation and discourse level organisation. Indeed these became evident during the projects, as a point from the field observation notes subsequently revealed: "Language weaknesses and errors started to become evident in the teams' writing, with respect to both knowledge and skills". These "weaknesses and errors" were predominantly in the areas identified above. The students were very likely aware to some extent that they had these difficulties prior to their projects, which would explain their relatively low self-ratings with respect to English writing. It was from these positions that the students started their respective projects.

Item 8 was repeated on the post-project survey. Their quantitative results are shown in appendix 14, figure 4b, while table 7.14 below and appendix 14, figure 4c show the levels of change calculated from those survey data.

Table 7.14: Frequency of change levels in self-reported writing ability

Group	Substantial improvement	Moderate improvement	Slight improvement	No change	Slight deterioration
W (*n*=10)	0	0	3	5	2
P (*n*=7)	0	1	3	1	2
OE (*n*=6)	1	0	3	2	0
Total (*n*=23)	1 (4.4%)	1 (4.4%)	9 (39.1%)	8 (34.7%)	4 (17.4%)

For the first time a student (OE129) perceived a substantial improvement, moving from 'Very poor' to 'Quite good', while another (P125) reported moderate improvement, going from 'Very poor' to 'OK'. Furthermore, among the four language macro-skills examined in this chapter, only with writing was slight improvement the most frequently occurring condition (*n*=9) rather than no change (*n*=8). Of these, two moved from 'OK' to 'Quite good' (P119 and OE130), five went from 'Quite poor' to 'OK' (W113, W115, P120, P123 and OE126) and two moved from 'Very poor' to 'Quite poor' (W111 and OE128), meaning that the majority moved from negative to 'neutral' ratings. These perceived gains are more impressive than those for the other macro-skills. However, the number of participants reporting no perceptible change in their writing ability was still high. Five stayed at 'OK' (**W109**, W112, **W114**, P122 and OE131) and three remained at 'Quite poor' (**W107**, W117 and OE127). Again those reporting a perceived deterioration in writing ability (**W118**, **W132**, **P121** and **P133**) had very high attendance rates, ranging from 80% to 100%, further supporting the hypothesis that some of the more motivated students assess their EFL proficiency more strictly than others. Finally, for post-project survey's item 36, nine (39%) reported that their writing ability had improved (W109, W111, W115, **W118**, OE131, P119, P120, **P121**, P123).

As with the analysis of data for speaking, listening and reading, judicious use of participant numbers to cross-reference quantitative results with qualitative data highlighted some noteworthy contradictions. Referring to appendix 14, figure 4c, **W118**

and **P121** both reported a slight deterioration, but their responses to item 36 noted immediately above suggest the contrary. In the case of the former, she also stated that "[The project] was helpful since many times we wrote in order" and "[i]t is an advantage to learn how to write a well-organized piece". In the case of the latter, s/he reported that they were better able "to express myself when writing a presentation script". Similarly, **W114**'s quantitative result indicated no perceptible improvement, yet she stated that "I have gained writing skills" and "I am able to write faster", though she did ask that more writing be included in future projects. Quantitatively, **P133** appeared to have deteriorated slightly, yet she wrote that as a result of the project "[she] could draft logically", showing that, if nothing else, she felt that she had improved her drafting skills. Likewise, another important aspect of good writing is the ability to write for the intended audience, and two students demonstrated an understanding of this point, which had been emphasised during instruction:

> W116: I rewrote the first draft to make it simpler…I tried to write in plain words.
>
> **W132**: I rewrote difficult English sentences so that they are easy for the audience to understand.

Somewhat more tangentially, **W107** commented that "Paul taught us vocabulary and writing methods which we didn't know before", indicating at least new related knowledge. Finally, if practice leads to development, then **W109** should also have perceived improvement "[b]ecause I made sentences every time...I wrote more sentences in this class than for other classes…I have few opportunities to make sentences myself, project-work is necessary".

Moving on to those whose quantitative results did show perceived improvement, further qualitative evidence in support of those findings came from several participants. P119 commented on the importance of practice in language skill development when they wrote

"I tried to speak and write English in class, so I think the project has improved my English speaking and writing. I found myself advanced after drafting".

Two others also commented that their ability to draft a text had developed:

W108: It is a good way to learn English writing because I first did writing before giving presentations.

P125: In projects we can practice writing skill to draft.

Two more found that they could better write for the audience:

W115: We wrote sentences carefully because we wanted our sentences to be simple and easy to understand for everyone.

P123: I designed the [slides] to be nice, and easy to see.

Another, (W113), felt that their writing speed had increased: "I notice my speed of making sentences has improved compared to before" and P120 referenced an enhanced capacity to organize her writing. Less specifically, two more indicated a general improvement in writing through practice:

W115: I could practice to put what I wanted to communicate in sentences.

OE128: I improved because I wrote a lot and listened to the teacher.

Some ($n=6$) simply indicated that they had enjoyed the creative process of writing a personalised piece of work with others: "We can create a story ourselves. I enjoyed that. It was fun" (W112).

Referring to appendix 14, figure 4d, combining those who evidenced some aspect of development in their writing through their qualitative responses ($n=7$) with those who reported improvement both quantitatively and qualitatively ($n=11$) yields a total of 18 students (78%). The finding that students perceived their EFL writing skills to have

improved through PBLL agrees with those of Moultan & Holmes (2000) and Beckett (2005). The results here also mirror those of Kemalogu's (2010) study in three respects. Both show reported improvements in EFL writing, by a large majority of participants and that they felt they could write more coherently.

For example, at the discourse level, a major part of the Writing course's content related to learning and applying the problem-solution, chronological and claim-counterclaim written discourse patterns and developing textual cohesion. There was ample evidence to show that through the project, the Writing group's participants had raised their awareness and understanding of, and ability to apply those textual discourse patterns and to organise their news stories in ways which enhanced discourse level cohesion. Some of that evidence comes from statements given in support of points made earlier in this section but which, when read with textual cohesion in mind, could be reinterpreted. W107 for example, referred to her use of "writing methods" (textual discourse patterns) and W118 stated that "[the project] was helpful since many times we wrote in order", the "order" being the component parts of a textual discourse pattern. W118 also implied an understanding of the benefit in using such patterns when she wrote that "[i]t is an advantage to learn how to write a well organized piece".

Furthermore, data collected via the SPA form's items 5 and 6, relating to course content knowledge and skills respectively, provided ample additional support for perceived skills development in this area. W113 and W114 both stated that they had used the chronological pattern and W116 that he had applied the problem-solution pattern collaboratively with his team. Going deeper into specific parts of the texts, eight of the 13 students in the Writing group commented that they had worked to create a clear introduction. They were aware through instruction that this is an important stage in any piece of writing because it introduces the topic, provides contextual information of time

and place and introduces key individuals. This was evident in their outputs as each team in the Writing group opened their news story with this kind of contextual information, for example that provided in appendix 16:

Hello. Today I'm going to ask a victim about the earthquake in Fukushima on March eleventh. Hello, excuse me. Can I ask you some questions?

In addition, eight students made mention at some point during their project to "developing the rest of the story" (W108), i.e. the body of the text, with W132 also stating that she had given thought to "[h]ow to end the story", i.e. a conclusion. This is also exemplified in appendix 16, in which the 'reporter' finishes with a strong closing statement to reiterate the main message:

This problem is not only for the Japanese, but for everybody. It's an international problem. Let's think about what can we do and what should we do (*sic*). Thank you.

While some students were specific about the particular sub-skills which they felt they had improved, for others the perceived improvement was more nebulous, but still perceptible. This perception is in part due to the high proportion of project session time given over to preparing scripts, i.e. writing practice, as is shown both in the results of section 7.2 indicating that 146 cases (79%) had used English writing during project sessions and of section 7.3 showing that 166 cases (90%) felt that they had had opportunities to write in English.

As with Tessema (2005), it is also evident that the process approach to writing had helped participants to develop various aspects of their composition, as noted below, paradoxically again by two students who claimed that their writing skills had deteriorated:

W118: My writing can be checked and I can also practice a lot…My writing and speaking mistakes were corrected.

P121: I got a lot of advice about making the script.

It would be unrealistic to expect that a project conducted with such limited contact time would be able to completely overcome all of the various problems in English writing which these students reported and exhibited prior to and during their projects. Indeed some students voiced the difficulty they still had in expressing themselves clearly and easily in written English (W115 and OE126). However, the data and results explored here do suggest that some inroads have been made, affectively and in terms of perceived writing skills development. In particular, perceived gains have been made in students' awareness of discourse level skills such as drafting, organising, sequencing and providing support for points made, as well as with concepts such as textual discourse patterns and cohesion.

7.10 Summary

In this chapter, I explored the extent to which PBLL projects conducted in a junior college's EFL Writing, Presentation and Oral English courses were seen as developing the language macro-skills of speaking, listening, reading and writing. The chapter started by presenting and discussing the results of five additional areas that might in turn aid interpretation and explanation of the results pertaining to these macro-skills.

Section 7.1 examined the extent to which students had studied individually, in pairs and in groups. This was important to know because the language learning outcomes which Stoller (2006, p. 25) shows are commonly reported for PBLL, and with which this study is primarily concerned, are partially dependent upon interactions between project team members. It was found that in total and across all project sessions, students worked in groups in 87% of cases, in pairs in 11% and individually in only 3% of cases, evidencing that those necessary student-student interactions were very strongly present. Fortunately, and not entirely coincidentally, this very high rate of group level interaction was closely

aligned with the participants' preferred mode of study during English lessons, with 79% of students expressing an enjoyment of group work because it was seen as having desirable affective, educational, social and creative components.

An examination in section 7.2 of the extent to which the participants had employed each TL macro-skill during the eight-week project period gave an indication of relative proportional use across all students and project sessions. Over this period, the four TL macro-skills were fairly evenly applied, though writing had the highest frequency of use (79% of cases), probably because students were given opportunities during several project sessions to write their scripts. Conversely, reading had the lowest frequency of use (62% of cases), perhaps because researching information was a shorter stage in the project and because many students were later shown to have read more in Japanese than in English. Predictably, use of speaking and listening were very closely matched at 74% and 77% respectively, the latter perhaps being slightly higher due to the presence of multiple listeners. These findings show that students used all four TL macro-skills, albeit to varying degrees and with each predominating at particular stages as students worked in groups, pairs or individually to meet the needs of different tasks within the wider project.

Having sufficient opportunities to produce the TL is a necessary condition for both L1 and L2 learning (Swain, 1985), so it was important to examine whether these projects had offered the participants chances to speak and write in English. This question was explored in section 7.3. The findings showed that, across all students and project sessions, participants reported that they had indeed had chances to speak in English in 96% of cases and to write in English in 90% of cases. The former is slightly higher perhaps because students had project-related matters to discuss in every project session, but not all sessions provided opportunities to write their scripts. Qualitative data also showed that the students viewed these opportunities positively because the project provided a context within which

to use English for genuinely communicative purposes. While these findings say nothing of the quality of the spoken or written production, that these opportunities were perceived as being (and in fact were) available, is an important finding because it shows that PBLL does indeed meet this necessary condition for SLA.

In line with the Communicative Approach, this study assumes that the more students use English purposefully, with a focus on meaning to convey their ideas, the greater their perceived EFL macro-skills development and knowledge learning will be. Therefore knowing the extent to which students had used the TL over their L1 could help to explain the levels of reported EFL learning outcomes found later in the study. This analysis was presented in section 7.4. Results by course group showed that the slightly higher level sophomore Presentation group used predominantly English in 56% of cases across all project sessions and that the lower-level freshman Oral English group used predominantly English in 43% of cases, as might be expected. However, the slightly higher level sophomore Writing group used predominantly English in only 31% of cases. It seems that the Presentation and Oral English students spoke more English, likely because that was what their course goals and assessment required, whereas the Writing students spoke in English less often because they were more focussed on writing-related learning objectives and assessment. Despite a negotiated agreement limiting L1 use to certain acceptable functions, some students conceded that they had overused L1, mainly to overcome their low English proficiency and to keep the project moving forward. In view of these results, it was suggested that all groups could have benefitted from a longer pre-project preparatory period to build their related TL knowledge and skills, perhaps through tasks such as Haines' "lead-in activities" (1989, p. 5), and to reduce affective barriers to using English. Projects should also be designed to be more easily completed within the prevailing time constraints so as to avoid time-pressure which encourages or even requires students to use L1.

Eslava & Lawson (1979) demonstrated that PBLL creates communicative needs for TL use within a specified "situational context" (p. 1). Knowing in general terms what the students were using the TL for might shed light on the types and range of communicative needs that had arisen during the projects. Section 7.5 therefore first examined whether or not the participants had used English to communicate opinions, ideas, knowledge, suggestions etc., then explored the kinds of information being communicated. The results showed that 74% of cases across all students and project sessions had used English to communicate some kind of information. Among the several discourse functions reported as being fulfilled in English, foremost were sharing project-related organisational information and exchanging ideas, suggestions and opinions. Asking questions and discussing project-related content issues were also evident, though to a lesser extent. It seems then that when students used English in groups or pairs, they did so as a means to get things done, strengthening the case for PBLL as an effective communicative approach.

Moving on to the results for speaking, listening, reading and writing, the adjusted quantitative results provided in appendix 14, figures 1d, 2d, 3d and 4d are summarised in table 7.15 below.

Table 7.15: Summary of QUAN results for EFL skills development outcomes

	Speaking (*n=23*)	Listening (*n=23*)	Reading (*n=22*)	Writing (*n=23*)	Total	%
Substantial improvement	0	0	0	1	1	1%
Moderate improvement	0	4	1	1	6	6.6%
Slight improvement	13	10	8	16	47	51.6%
No change	6	7	12	5	30	33%
Slight deterioration	4	2	1	0	7	7.8%

Moderate deterioration	0	0	0	0	0	0%
Substantial deterioration	0	0	0	0	0	0%

The results presented in section 7.6 showed that 13 students (57%) perceived a slight improvement in speaking ability across the eight-week long project. This result was somewhat disappointing, firstly because their low baseline self-ratings left plenty of room for improvement and secondly because the results from sections 7.3 and 7.4 strongly indicated that while the projects offered many opportunities to use English, the students instead often used Japanese for various reasons. This very likely reduced the degree of actual EFL speaking development, hence their perception of minimal improvement. The pedagogic implications of excessive L1 use are taken up again in section 9.2.

The combination of two results in section 7.7 revealed an important point. Fourteen students (61%) reported slightly or moderately improved listening despite the fact that 88% of cases also reported problems in understanding their team members' English. This shows that listening was perceived to have improved in many cases even when and perhaps precisely because those students had to struggle to comprehend their team members' and/or the teacher's English. If the struggle for comprehension is an integral part of the developmental process, it seems important and useful to inform students of this, if only to encourage them to keep going when communication in the TL becomes difficult.

It was shown in section 7.8 that only nine students (41%) perceived any improvement in their English reading ability, in some cases due to a weak lexico-grammatical foundation. This argues in favour of considered, level-appropriate project design and also for providing a strong foundation in potentially useful grammar and vocabulary prior to, and where needed during, a project.

Finally, section 7.9 presented the results for English writing. Participants initially reported having difficulties mainly with grammar, vocabulary and spelling, i.e. sentential level writing, though a discussion of those points was postponed until Chapter 8 which discusses the results relating to EFL language knowledge domains. Largely due to the amount of writing they did during their projects, 18 students (78%) reported higher writing speeds and an improved capacity for self-expression, writing for an audience, scene-setting, drafting, general textual cohesion and use of textual discourse patterns. This seems to support the view that development of language skills requires extensive practice. Use of the process approach seemed to help, as did the provision of supporting materials to aid the drafting and peer-review stages, again highlighting the importance of considered project and materials design and implementation.

Compared to the findings of statistically significant actual gains in EFL language skills reported by Simpson's (2011), the extent of perceived skills development shown here was slight. This could be ascribed to the reasons stated above, and also more generally to the fact that the projects had only approximately six to 12 hours of project session time each, which is perhaps too little to reasonably expect to see a more substantial shift in actual or perceived gains. This suggests that if larger gains are required, a longer project or a series of projects might serve better. That any perceived gains were reported at all with so few contact hours tends to support the proposition that PBLL can, at least in some cases, develop TL skills by encouraging students to apply them within a contextualised, creative process. Additional pedagogic implications of these results and their underlying causes are explored in more detail in section 9.2.

Three other points arose consistently during the analysis and discussion of the results in sections 7.6 to 7.9. The first point was that those few students reporting a slight deterioration in their English language skills *always* had very high, if not perfect

attendance rates, suggesting that they were among the more motivated students. This paradoxical finding was attributed not to actual linguistic decline, but to a supposed affective downturn which caused these particular students to rate themselves more harshly than had their peers. The second point was that perceived gains in TL macro-skills are influenced by a range of affective variables including motivation and confidence to study and use the TL, both of which were reportedly improved through these projects. Finally, a raised awareness of the important role that having and using opportunities for production plays in TL skills development was also evident.

A further important general finding that supports the view of PBLL as an effective communicative approach to FL learning was that several students found their project-work to be a "practical" way to use English as a means of communication to further a creative process while simultaneously practicing and developing their EFL skills. Other qualitative data evidences a positive evaluation of PBLL by some as an approach through which to develop multiple EFL skills concurrently:

> W112: We can learn and practice all the skills at the same time…[PBLL] is an activity designed to improve English skills.

> W113: Project-work is to be continued because it is helpful for practicing all the skills of listening, writing, speaking, and reading. I think it is good because we learn many skills.

> W118: Project-work is important because many different skills can be acquired.

Sayaka in the Writing group likewise observed that:

> [w]e can do many different things simultaneously like *listening* as the teacher talks and when we want to ask questions we can ask the teacher, so we can *speak* English and we think and then *write* and *read*, so all these things can be done at the same time, so it's good. (Emphasis added.)

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It was shown in table 7.15 that, after accounting for the qualitative data across all four skills, more than half of the cases reported a perceived slight improvement in at least one English language skill and a further 7.6% of cases perceived moderate or substantial improvement. Furthermore, the finding here that PBLL is perceived by Japanese EFL college students as working to improve their EFL receptive skills may be the first such empirically derived report of its kind. While Kemaloglu (2010) also found that her Turkish EFL students' reported improved writing and oral presentation (i.e. productive) skills through their projects, they did not perceive development of their receptive skills. Kemaloglu (2010) attributed this to excessive L1 use among her students. However the same problem was experienced in this study, so the reason(s) for the different outcomes is unclear. Simpson's (2011) findings do align with those here, though with respect to a Thai university.

Finally, related to the above point, comparing the degree of perceived change in receptive and productive skills, table 7.16 below shows that, though somewhat mixed, the findings in this chapter indicate a slight lead in perceived gains for productive skills over those for receptive skills. While this runs counter to Spolsky's (1989, p. 46) ninth (typical, graded) condition for L2 learning, which states that receptive skills are "usually develop[ed] to a higher level" than productive skills, it does agree with Kemaloglu's (2010) results based on students' self-reported statements of skills development.

Table 7.16: Combined self-ratings for receptive and productive skills by level

	Receptive skills	Productive skills
Substantial improvement	0	1
Moderate improvement	5	1
Slight improvement	18	29
No change	19	11

Slight deterioration	3	4
Moderate deterioration	0	0
Substantial deterioration	0	0

This chapter has explored the reported language skills development outcomes associated with PBLL. Those relating to the other language learning domains examined in this study, language knowledge, are presented and discussed in the following chapter.

Chapter 8: Language knowledge learning outcomes

In this chapter, I present and discuss the learning outcomes reported by students for four aspects of language knowledge: grammar, vocabulary, spelling and pronunciation. These are presented in sections 8.1 to 8.4 respectively using the same general organisation as for Chapter 7. Implicit within the discussion is the assumption that applying language knowledge enhances the likelihood of subsequent accurate recall for future use.

As mentioned in the previous chapter, the process approach to writing was used to help the teams create their scripts during project-work. This approach aims primarily to develop discourse level composition skills through various stages. However, especially when writing in a foreign language, the cyclic drafting, peer-review and revision phases are particularly helpful to students, both in developing their discourse-level writing skills and learning (or correcting errors in) the target language's grammar, vocabulary and spelling. It does this by encouraging students to recognise in the writing of their peers, language errors that they have made in these areas. This in turn helps students to better recognise and be able to correct such errors in their own subsequent written work. It was for this reason that the process approach was selected for these projects with the expectation that it would enhance the project-work's actual and perceived language knowledge learning outcomes.

8.1 Grammar

Grammar is the scaffold upon which to hang language to create meaning, conventionally at the sentential level. Richards et al (1992, p. 161) view it as "the structure of a language and the way in which linguistic units such as words and phrases are combined to produce sentences in the language". Even Thornbury (1999, pp. 1-3), who argues that this view of grammar as a sentential level construct is problematic in both teaching and learning

foreign languages, concedes the point, as I do, for practical purposes. This section therefore explores the extent of perceived gains in sentential level grammar through the project-work conducted in this study, together with concrete examples of learning reported by the participants via their SPA forms and shown in their project outputs.

During the pre-project interviews, all eight respondents across all three course groups unambiguously stated that overt grammar instruction had featured very heavily in their school EFL education (see for example appendix 11, lines 1-12). To gauge the perceived learning outcomes of such instruction and to establish a baseline for post-project (i.e. 'post-treatment') comparison, the pre-project survey's item 1 asked all participants to rate their own English grammar knowledge on the same five-point Likert scale described in Chapter 7. Figure 8.1 below shows the results for this item.
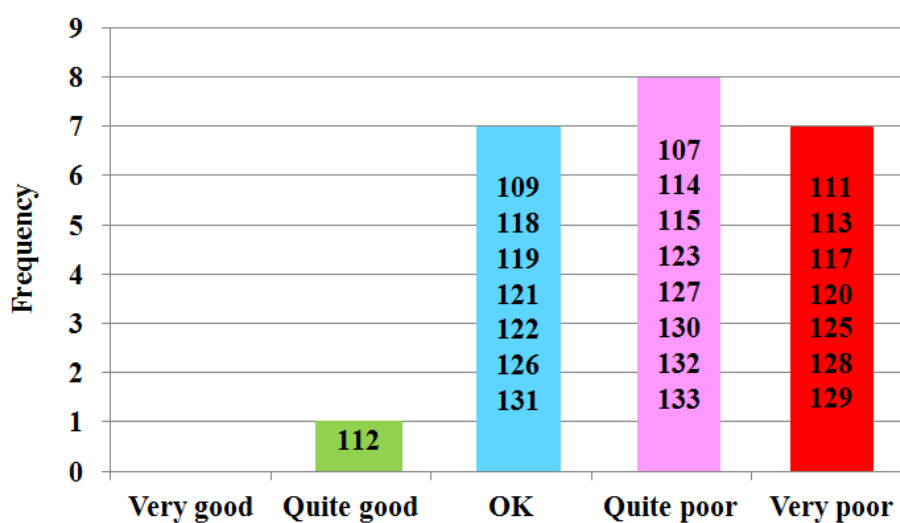
Figure 8.1: Frequency of pre-project ratings for grammar knowledge

Via the space provided next to the Likert scale item for students to write additional information, qualitative data was collected which, upon analysis, was found to be representative of, and therefore supportive of, the negative skew shown above. Ten informants offered descriptions of their level, of which six were negative. Three viewed it simply as "bad" (W107, W115 and OE130), two felt that they "don't understand English

grammar" (OE126 and P134) and one wrote that "I can't translate Japanese into English as I want to". However, three others (W112, W118 and P121) felt that they had "some grammar knowledge" and W110 had passed her EIKEN[7] Pre-Second level English test through self-study of grammar.

The reasons offered for their perceived low level of grammar knowledge were varied. Three just "don't understand English grammar" (W114, W115 and OE129) and another three were "poor at studying" grammar specifically, or English in general. Given the high degree of markedness between some aspects of Japanese and English grammar (Chiswick & Miller, 2005), it was perhaps unsurprising that another three students simply found English grammar "difficult" (W111, P123 and W132). In the case of W132 however, it was "long sentences" that were problematic, from which might be inferred that at least simple, single clause structures were within her ability. Both W110 and W111 reported being "confused" by English grammar, while statements from W109 and W111 indicated a lack of confidence in their grammar knowledge. For W113 the problem was that her production was prone to errors: "I always make some mistakes when I make sentences about what I think". In general then, despite the very heavy focus on overt grammar instruction during their school EFL education, these data and results evidence a crisis of confidence among these students in their EFL grammar heading into their projects.

As the projects progressed, useful grammar points, often basic verb forms, were reviewed during the instruction phase of some lessons, especially if errors in their English writing showed the need. I also checked the grammar used in their scripts and offered corrective feedback to individuals or teams were necessary during the lessons' project phase.

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[7] EIKEN: *Jitsuyō Eigo Ginō Kentei* (Test in Practical English Proficiency) - A test of English knowledge and skills proficiency commonly used in Japan, particularly by schoolchildren for school or university admission purposes. The test is divided into several levels of difficulty. Pre-second level might be considered approximately equivalent to intermediate level.

Students also checked and repaired their grammar during the reviewing and redrafting phases of the process approach.

The post-project survey yielded quantitative results on degrees of perceived change in grammar knowledge and also provided related qualitative data useful in explaining the students' quantitative responses. The results of the matched pair analysis are presented in table 8.1 and appendix 15, figure 1c and discussed below.

Table 8.1: Frequency of change levels in self-reported grammar knowledge

Group	Moderate improvement	Slight improvement	No change
W (*n=10*)	1	2	7
P (*n=7*)	2	0	5
OE (*n=6*)	0	1	5
Total (*n=23*)	3 (13%)	3 (13%)	17 (74%)

As with the majority of the language macro-skills, most students appear to have perceived no noticeable gains in their English grammar (*n=17*, 74%). One remained 'Quite good' (**W112**), six 'OK', seven 'Quite poor' (including **OE127**) and three 'Very poor' (**W111**, **W117** and OE129). However three (13%) reported slight improvements, one each moving from 'Very poor' to 'Quite poor' (OE128), 'Quite poor' to 'OK' (W115) and 'OK' to 'Quite good' (W109). Another three cited moderate gains, all from 'Very poor' to 'OK' (W113, P120 and P125).

Additional support for perceived grammar learning comes from the post-project survey's item 35, which asked in general terms whether the participants thought that their project-work had improved their EFL knowledge (grammar, vocabulary, spelling or pronunciation). Positive responses then prompted the respondent to offer a reason for the learning and for specific examples of TL knowledge learned. Six responded simply with "grammar" (**W107**, W109, **W111**, W115, **P121** and P125), while six others (**W112**, W113,

W117, OE128, **OE130**, **W132**) supplied answers along the lines of "How to make sentences", which were interpreted to mean grammar. **OE131** replied "I think my grammar knowledge has deepened because I learned new grammar".

The reasons cited by students for these perceived gains in grammar knowledge can be grouped into five categories. The most commonly stated explanation (*n=5*) was that they had had many chances to practice, especially in writing, for example:

> **W107**: We get to write a lot of English words and grammar.
>
> W109: I made sentences every time…I often use the same grammar patterns.
>
> OE128: I remembered a lot as we made sentences ourselves.

This offers mutual support for the finding in section 7.3 that the projects provided ample opportunities for spoken and written production.

Also, the process approach seems to have helped students to correct some of their grammar errors:

> **W112**: Correcting my spelling, sentence orders.
>
> W115: I learned what mistakes I often make as well as correct grammar.
>
> P125: I was always trying to use correct grammar and team members corrected my mistakes.

The latter statement hints at the peer-teaching/learning that occurred within project teams. There is ample evidence in the dataset to show that such cooperation was quite commonplace, but a closer examination of those data is beyond the scope of this thesis.

Instruction from the teacher also helped. Three participants reported that:

> **W107**: Even though I often made mistakes, I could learn correct grammar by learning from Paul.

W108: …because Paul has been checking my grammar.

OE128: I remembered a lot as we were taught by the teacher.

Two ascribed their perceived gains in English grammar more generally to the project as a whole.

OE131: The project is useful for me to know grammar.

W115: Working on the English news story helped me learn set phrases, grammar, and vocabulary that are helpful and practical in daily living.

In the miscellaneous category, **OE127** wrote simply that "I learned various grammars". Finally, another miscellaneous comment is worthy of closer examination. As stated above, W113 had commented in the pre-project survey that "I always make some mistakes when I make sentences about what I think". However, after the project and perceived moderate improvement, she wrote that:

I have come not to dislike making sentences because now I find it not so hard to make sentences by putting words together.

Any suggestion as to how she overcame this affective barrier would be speculative, though it may have something to do with her having corrected at least some of the "mistakes" which she felt had previously marred her TL production, and in the process realising that using English grammar correctly was not the unattainable goal that she had previously perceived it to be. As her teacher, I would also speculate that this was made possible by the many opportunities for peer-teaching/learning which existed within the relaxed, friendly and supportive atmosphere of her project team. These opportunities were created through a fusion of the process and PBLL approaches, which speaks well of these pedagogies. However, if the above suggestion is correct, it also speaks to the studious efforts of both W113 and her teammates, and the educational potential of peer-instruction.

An important point raised by two cases highlighted an issue which has major implications for PBLL, not only with respect to grammar learning, but also for vocabulary, spelling and pronunciation learning outcomes:

W114: It is difficult to learn grammar through projects.

P123: I could not firmly study grammar through project-work.

By "firmly", it seems that P123 might mean *systematically* or *overtly*, but even if these interpretations are incorrect, the gist of their statements is still clear: For them, project-work does not focus sufficiently overtly on grammar, which Japanese educational culture traditionally values and focuses on heavily. In this respect at least, PBLL does not meet their expectations of what should occur within EFL lessons. This issue has been reported previously in the literature, particularly in relation to Asian students (Eyring, 1989; Beckett, 2002, p. 61).

However, such atomistic grammar instruction is antithetical to the philosophy of holistic language learning which underpins the PBLL approach. As a student-centred and communicative approach, integral to, and implicit within it are the assumption and requirement that students will use the TL freely to fulfil the communicative needs of the moment to get things done, as section 7.5 shows occurred during these projects. Project-work offers chances for students to _**use**_ the TL. It does not seek to systematically or overtly teach specific knowledge _**about**_ the TL, as formal instruction would. However that is not to say that PBLL cannot and does not teacher grammar or other aspects of language knowledge. As the above results and data have shown, and as subsequent sections in this chapter will show, it occurs through impromptu teacher support for individuals or teams, by peer-teaching, by trial-and-error, personal experiential or inductive learning or other processes that occur *in situ* within project teams as the project develops. This is an intended consequence of EFL group work and one of the reasons why

project-work is conducted in groups. However, it is incidental, unplanned, latent, natural, "unpredictable, dynamic" (Haines, 1989, p. 5) and 'of-the-moment', rather than systematic and overt, and so may go unnoticed by some, or discounted by others who value a more direct approach to instruction.

As briefly mentioned in Chapter 3, it was in an attempt to resolve precisely this tension between satisfying the expectations of those who value more traditional, knowledge-based EFL instruction on the one hand and the need to develop language skills on the other that Wilhelm proposed her "Collaborative do's and don'ts" (1999, p. 17) and Beckett & Slater developed their Project Framework (2005). These interventions seek to mitigate this tension by 'socialising' students to new ways of learning languages. Had such interventions been used to good effect prior to these projects, W114 and P123 may have felt differently about grammar learning through project-work. The implication, again, is that solid preparation before a project can increase language knowledge learning and skills development and also help to overcome students' negative evaluations of the approach.

To somewhat counter the above statements by W114 and P123, in her OE group's post-project interview, Ayaka pointed out that:

> I think I wanted to study vocabulary a little more but as for grammar, even if we study, if we don't use, we won't learn, so the way we did in the team project is I think good.

This seems to be a case of successful socialisation, where a student trained to the traditional EFL education system has come to understand the value of project-work as a means to develop her English grammar knowledge through communicative TL use.

In addition to the pre-/post-project surveys' results, item 1a on the SPA form asked students if they had learned or used any new English grammar points during the project session. Table 8.2 and figure 8.2 below show the cross-tabulated results for this item.

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Table 8.2: Results for SPA form item 1a: Grammar

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	34	33%
		No	69	67%
P (*n=8*)	5	Yes	2	6%
		No	34	94%
OE (*n=6*)	8	Yes	14	30%
		No	32	70%
Total (*n=27*)	22	Yes	50	27%
		No	135	73%

Table 8.2 and figure 8.2 show that across all participants and project sessions, students reported not learning or using new grammar in a total of 135 cases (73%). This would explain why 74% of participants reported no perceptible improvement in their grammar via the post-project survey (see table 8.1).
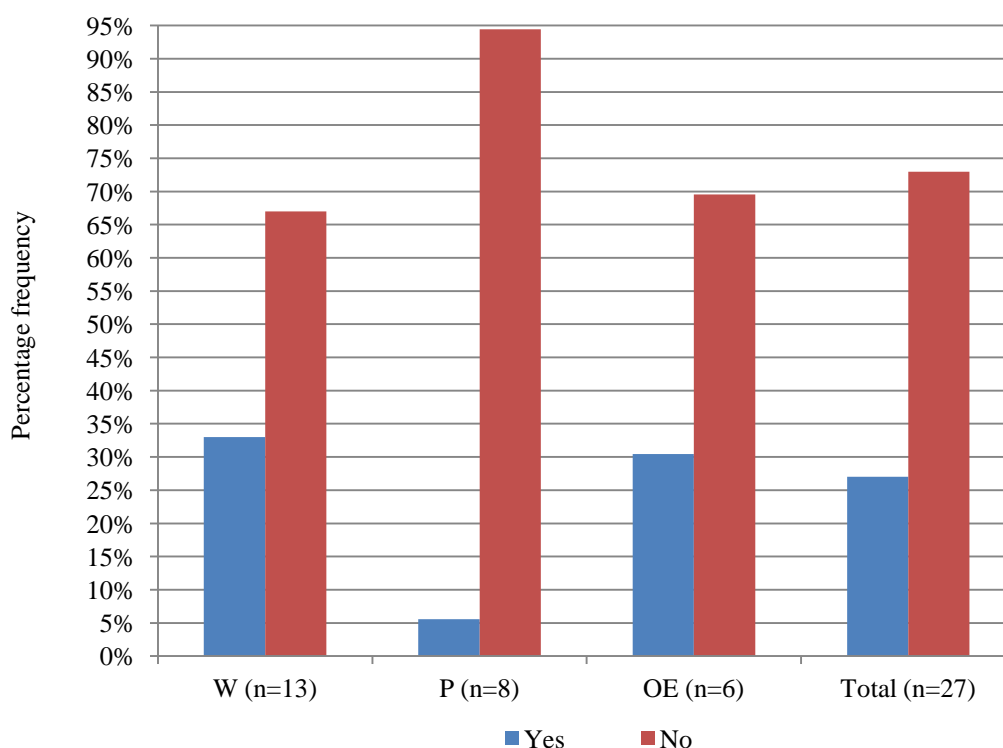
Figure 8.2: Percentage frequencies for SPA form item 1a: Grammar

Most of the remaining 50 cases (27%) who indicated on their SPA forms that they had learned or used new grammar structures also provided concrete examples via the follow-up item 1b. A detailed discussion of those learned is beyond the scope of this thesis but analysis showed a total of 38 cases of reported learning across ten distinct grammar points. Table 8.3 below summarises the frequency of each grammar point reportedly learned, improved or corrected. The full analysis is available in appendix 17.

Table 8.3: Grammar points reported as learned in descending order of frequency

Grammar points reported as learned	Frequency of response
Articles	8
Verb tenses	7
Adjective modifiers	5
Conditionals	4
Prepositions	4
Pronouns	3
Modals	1
Comparative / superlative	1
Defining relative clause	1
Others	4
Total	38

While discussing the results for Writing in section 7.9, I delayed discussion of the grammar points which many Japanese students that I have taught over the years seem to have consistent difficulty with in their writing. The ten most commonly occurring are: pluralizing, subject-verb agreement, present tense third person 's', various basic verb forms, use of articles, pronouns, possessive 's' and modals, as well as misuse of conjunctions and capitalization. It is interesting to note that of these, four (various basic

verb forms, use of articles, pronouns and modals) are in common with the ten listed above. One implication of this finding then is that formative and corrective feedback which encourages students to "notice" (Swain & Lapkin, 1995) and correct their grammar errors in their writing can enhance grammar learning outcomes. This may explain why two grammar points subject to very high rates of corrective feedback, articles (*n=8*) and verb forms (*n=7*), were most frequently reported as learned.

However, it is also important to note that use of both of these grammar points featured very heavily in the scripts for all three project groups (see sample script in appendix 16). Perceived learning outcomes seem to be enhanced then when students have opportunities to consolidate TL learning via overt instruction with TL use in project-work, or to put it another way, targeted instruction prior to project commencement in areas that are known to be problematic can assist in correct or improved usage during project-work. These findings are in line with those from research on TBLL (Willis & Willis, 2009) which show that, with respect to focus on form, the two (targeted instruction and meaningful, purposeful TL usage) are mutually supportive.

In summary, referring to appendix 15, figure 1d, while eight cases consistently reported learning no new English grammar points through their project-work, six consistently reported gains. Another nine provided qualitative data reporting improvement which contradicted their quantitative results and one other (W108), who was excluded from the matched pairs quantitative analysis, reported L2 grammar learning qualitatively. This means that 16 cases out of 24 students (67%) indicated some improvement in this area. This finding supports those of Kemaloglu (2010), Simpson (2011) and others who have reported perceived or actual gains in participants' grammar through PBLL.

However, some of the more problematic grammar functions still presented difficulties, even for those who reported improvement. W115 for example stated that "I often forget to

apply plural forms" and "I often forget 'a' or 'the'". Learning to the point where one can apply these problematic grammar functions consistently correctly would take a lot more time and work than these projects could offer and, realistically, may never occur for some students for whom these errors have become very deeply fossilised. As Willis & Willis (2009, p. 5) explain, "[s]ome grammatical systems are so resistant to teaching/learning that they go on causing problems for years after they have first been presented to learners". Therefore, while teachers embarking on PBLL projects with their students should certainly explain its benefits to them, it also seems important to keep their expectations as to what it can achieve to realistic levels.

8.2 Vocabulary

In the previous section, I established that grammar is the sentential level framework upon which vocabulary is placed to produce meaning. However 'vocabulary' has a wider definition beyond merely single words. I use it here to mean "lexical items" (Carter, 1998, p. 7), which are words or word groups that have independent meaning. That may be single words: *cap*; fixed phrases: *it depends on*; collocations: *auburn hair*; compound words such as compound nouns: *exercise bench* or phrasal verbs: *put on*; and idioms: *come into fashion*. It also encompasses all parts of speech.

When asked prior to the project to rate their EFL vocabulary knowledge, the results were unsurprisingly rather negative (see figure 8.3). Only one (4%), OE130, fell on the positive side of the Likert scale. Eight (35%) thought their English vocabulary knowledge was 'OK', while a majority of 12 (52%) rated themselves as 'Quite poor' and two (9%) as 'Very poor'.
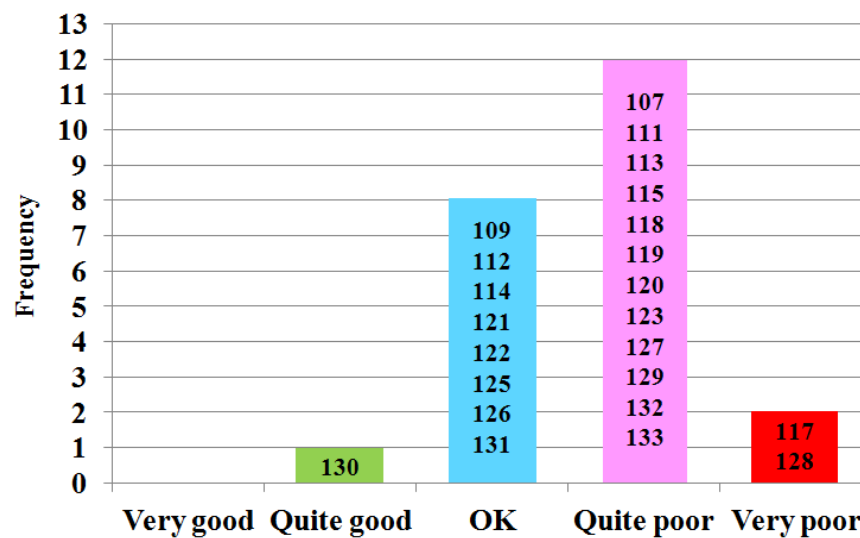
Figure 8.3: Frequency of pre-project ratings for vocabulary knowledge

Again, this is a disappointing baseline from which to start, especially given the many school EFL contact hours devoted to learning English vocabulary, as reported by four of the seven informants during the pre-project interviews. As suggested in section 2.3, that their school EFL textbooks very likely did not provide sufficient multiple exposures to place even many basic lexical items into long-term memory may be a contributing factor.

Associated pre-project qualitative data serves to confirm this general outlook. W110 vaguely described her level as "Not enough". Others were more specific, for example relating their level to the college library's graded reader grading system: "Reading level A" (W132), which is low at approximately 400 headwords. P124 responded that her EIKEN English test score indicated that her "vocabulary is poor". Similarly, W117 described her English vocabulary as "very poor" and W118 likewise as "rather weak". In line with figure 8.3, only OE130 rated herself positively: "I have enough vocabulary knowledge".

The first reason for their perceived low level in this area, offered by two students, was an inability to recall vocabulary on demand:

W113: Despite known words, I can seldom remember. It's very difficult to come up with the words, even though I've learned them already.

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P119: It's difficult for me to recall vocabulary.

The second reported reason was a poor vocabulary base (*n=3*), for example: "I don't know any English vocabulary" (OE126). The final explanation was a lack of comprehension (*n=2*), for example "I cannot understand vocabulary" (W115).

In short, these students appear not to have truly acquired much of the vocabulary they had studied previously to the point where they could understand it receptively and/or use it productively. This may be down to the relatively small number of times they met the words in their EFL classes, in tandem with the relatively few opportunities for production afforded in school English classes or Japan as a wider EFL context, as explained in section 2.3. However, while their low self-evaluations were probably to some extent justified, it is also quite likely that they had more latent vocabulary knowledge than they gave themselves credit for.

During the projects, the students very often referred to their dictionaries to check translation equivalents, though this practice was somewhat reduced by the 'policy', explained in section 7.6, that students first had to ask each other or the teacher before resorting to a dictionary, so as to provide more opportunities for oral and aural practice.

After working through their projects, the changes shown in table 8.4 below and in appendix 15, figure 2c were found.

Table 8.4: Frequency of change levels in self-reported vocabulary knowledge

Group	Slight improvement	No change	Slight deterioration
W (*n=10*)	4	5	1
P (*n=7*)	2	4	1
OE (*n=6*)	1	5	0
Total (*n=23*)	7 (30%)	14 (61%)	2 (9%)

Referring to appendix 15, figures 2a and 2b, of the 23 students to complete both pre- and post-project surveys, two (**W111** and **P121**) felt that their level of vocabulary knowledge had deteriorated slightly over the project period. As found with results in other areas previously discussed, these two students had near perfect and perfect rates of attendance respectively, further strengthening the previously observed inverse correlation between these two variables. Fourteen others seemed to stay at their pre-project level. Of these, the confident **W130** stayed at 'Quite good' and six remained at 'OK' (**W109**, W114, P122, **P125**, **OE126** and **OE131**). A further six were static at 'Quite poor' (**W107**, **W115**, **P120, OE127, W132** and **P133**) and **OE128** was unchanged at 'Very poor'. Seven others reported a slight improvement in their English vocabulary.

However, comparing appendix 15, figures 2c and 2d, it can be seen that both of those reporting slight deterioration and 12 of the 14 reporting no change subsequently contradicted these results by responding positively to the post-project survey's item 35 which asked if the project had improved their knowledge of English in general. In their response to the qualitative follow-up item asking for particular examples of learning, they supplied the keywords "vocabulary" (**W107**, **W109**, **W111** and **P120**), "words" (**P121**, **OE126**, **OE127**, **OE130**, **OE131** and **OE133**), "phrases" (**W115** and **OE128**), "technical terms" (**P125**) and "expressions" (**W132**), showing that they felt that their knowledge in this area had improved.

Among those who had already indicated quantitative improvement via item 2 on the post-project survey, W113 and W118 added in the item's qualitative response space that their vocabulary had "increased" and W117 wrote "I have learned a lot since I didn't know a lot of grammar and vocabulary". W108 also indicated perceived vocabulary learning in the post-project survey: "I get to know words little by little".

Data and results from the SPA forms added more depth to those from the main surveys. Table 8.5 and figure 8.4 below present the results for SPA form item 2a, which asked respondents whether they had learned or used any new vocabulary during the project session.

Table 8.5: Results for SPA form item 2a: Vocabulary

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	49	48%
		No	54	52%
P (*n=8*)	5	Yes	19	53%
		No	17	47%
OE (*n=6*)	8	Yes	18	39%
		No	28	61%
Total (*n=27*)	22	Yes	86	46%
		No	99	54%
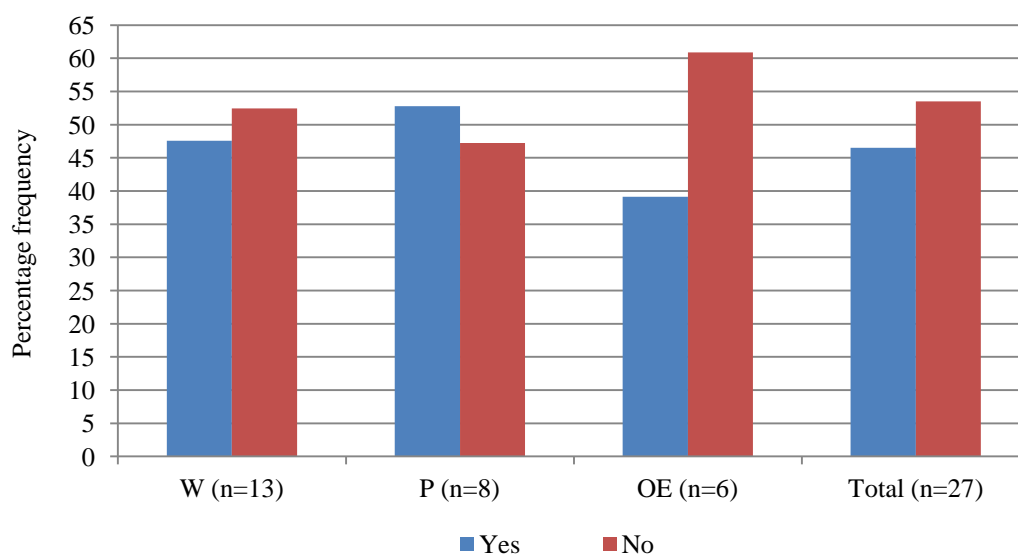
Figure 8.4: Percentage frequencies for SPA form item 2a: Vocabulary

The above findings show that students reported learning new vocabulary during project sessions in only 86 (46%) of the 185 cases collected. However, reference to appendix 18 reveals that this does not equate to only 46% of participants learning new vocabulary

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items. All but one student reported learning at least one new vocabulary item, though the average was 5.2 items/student, the median was four, the mode was three (*n*=6) and W111 reported learning 19 different lexical items. The *only* student to consistently report learning no vocabulary items during the entire project was P122. It seems quite unlikely that even a comparatively confident and proficient student, such as P122 was, would not learn *any* new vocabulary during an eight-week long project. In fairness, her course had only one lesson a week, not two, so it can be said that she had fewer opportunities to learn new vocabulary. However, even OE130, who reported being 'Quite good' and who "ha[d] enough vocabulary knowledge" at the outset still learned seven new lexical items. This tends to support the view that P122 did not answer her SPA forms thoughtfully and further justifies the decision, explained in section 6.2.4, to discount her from the SPA analyses.

The analysis provided in appendix 18 and summarised in table 8.6 below reveals the types of vocabulary more frequently reported as learned, improved or corrected. Nouns, verbs, adjectives, fixed phrases and collocations were the most commonly occurring among the 141 lexical items reported as learned. PBLL may lend itself to the learning of these particular types of vocabulary because of its inherent focus on function and meaning, though it may be that this proportionality also reflects that of the English language itself.

Table 8.6: Vocabulary types reported as learned in descending order of frequency

Vocabulary types reported as learned	Frequency of response
Nouns	44
Verbs	29
Adjectives	20
Fixed phrases	17
Collocations	13

Adverbs	8
Differences between A and B	7
Conjunctions	1
Prepositions	1
Abbreviations	1
Total	141

Another interesting result was that four students (W108, W110, **W115** and W117) reported learning the difference between ~ing and ~ed adjectives, for example surprising/surprised and exciting/excited. This is a very common lexical problem for Japanese students, even though the same distinction is possible in their L1. The wider point of interest is not that a large number of students reported learning the difference, (only four did), but that it suggests that projects could be designed specifically to target particularly problematic vocabulary and help students to notice and correct them, not just for Japanese studying English, but for any L1 group studying any TL.

Perceptions of vocabulary learning are also evidenced by the students' project output. For example, in the news story script written by one of the Writing course teams (appendix 16), the words shown in blue are those taught by the teacher and/or reported as learned by the students via their SPA forms. There is therefore some evidence that the students not only reported learning new vocabulary, but were able to use them appropriately in their project-work.

In total then, the 21 students shown in appendix 15, figure 2d, plus W108 and W110 ($n=23$, 82%) reported slight improvement in their English vocabulary through this short-term project. As with speaking, writing and grammar, this supports Kemaloglu's (2010) findings for self-reported vocabulary learning through PBLL, further suggesting that the approach lends itself to learning lexical items.

A cautious view would be that, as was noted earlier in this section, despite initially low self-evaluations, many of these participants may well have had more latent vocabulary knowledge than they realised. It may simply be that the project-work brought some of that vocabulary to the fore, to help them (re)notice it and therefore internalise it more deeply, aiding recall, or at least giving the perception of improved recall. However, given the low frequency and specialised nature of much of the vocabulary reported as learned and/or shown in students' scripts, it does seem very likely that the projects also helped to teach numerous novel lexical items, as OE131 testified: "I want to know more words. This project gives me the chance. I could memorize new words by practicing".

Few statements were provided by the participants to directly explain how or why they believed their vocabulary had improved, but those that were put forward centred on two types of opportunities which the project had afforded. The first was for output:

> **W107**: Overall, project-work is a good way to practice and study English because we get to write a lot of English words and grammar.
>
> **OE126**: There are words I remembered by writing.
>
> **OE127**: Many new words come up, so I can remember.
>
> **OE131**: I could memorize new words by practicing.

The second was for peer-learning (*n=5*), for example:

> **W111**: My friends corrected my mistakes and taught me the words I didn't know.
>
> **P125**: I could learn new words from other members.
>
> **OE126**: There were words and expressions that I learned through the discussion since we added English to it.

It is assumed that OE126's "expressions" refers to various forms of lexical items, perhaps including but not limited to fixed expressions.

Analysis of the post-project interviews' transcripts show that perceived gains in vocabulary were not discussed. However, two students did raise the issue of formal vocabulary instruction. During the OE group's post-project interview, Ayaka commented that "I think I wanted to study vocabulary a little more". I take this to mean overt, formal instruction in class rather than self-study or peer-teaching/learning, since there were ample opportunities for these last two throughout her project. There was also this exchange during the Writing group's interview:

> Sayaka: I know easy words but I don't understand difficult words, so I would like to learn more difficult words with the same meaning as an easy word I'm using.
>
> Paul: OK, so if I pre-taught the necessary words, phrases, grammars it would become easier.

The problem is that when teams have the freedom to choose the direction which their projects take and the language they will use to express themselves, vocabulary needs become very unpredictable. This makes it much more difficult for the teacher to pre-emptively select potentially useful vocabulary and to produce materials that help students to learn that content, even when all the teams are working within a common project theme. For example, in a subsequent project asking teams to research and write about an important social issue, topics as diverse as Japan's high suicide rate, gender issues in Japanese schools and Japan's aging society were chosen. This problem of unpredictability is also an issue to some extent with grammatical forms, though some are more likely to appear than others, making them more predictable, and some may even be unavoidable.

This section has presented and discussed the reported vocabulary learning outcomes resulting from the projects conducted in this setting. In the next section, I examine the extent to which they may have helped students to improve their English spelling.

8.3 Spelling

The previous sections have analysed and discussed the participants' reported grammar and vocabulary learning outcomes. In this section, I move down one level to examine how the projects were reported to have helped some students to improve their spelling. Here, 'spelling' is simply considered to equate to orthography.

The pre-project interviews did not raise the issue of spelling, but the baseline data collected via the pre-project survey's item 3 and presented in figure 8.5 below show that the participants were more confident in their English spelling than they had been in their grammar or vocabulary. Only nine (39%) considered their English spelling to be poor. Most (*n*=11, 48%) felt that it was 'OK' and three (13%) considered it to be 'Quite good'.
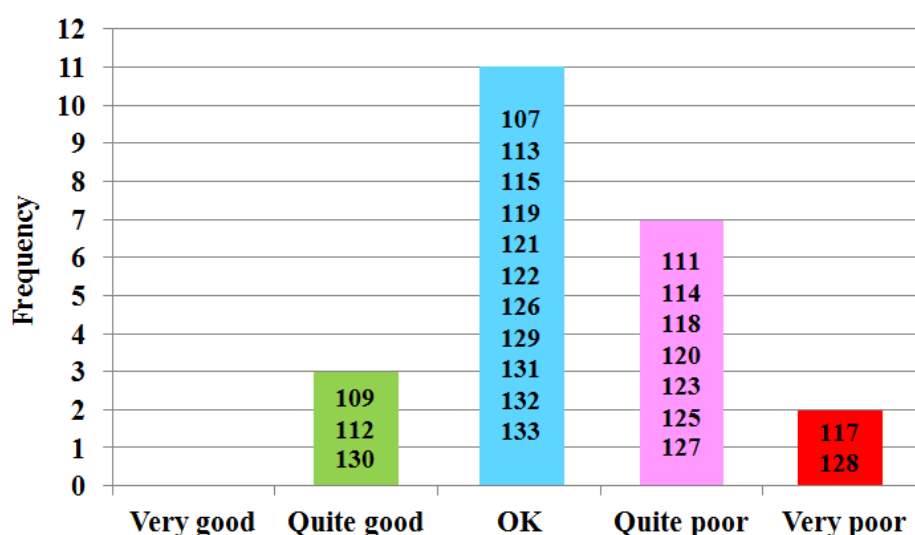
Figure 8.5: Frequency of pre-project ratings for spelling knowledge

In their qualitative descriptions of their spelling proficiency, five made statements along the lines of "I often make mistakes" (W118), of whom four had rated themselves as 'Quite poor'. Of those identifying as 'OK', OE129 was "confident in writing words", P121 "[had] some spelling knowledge", W110[8] could "generally remember most of it" and

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[8] Not included in the quantitative analysis, as explained previously.

OE126 considered that "[t]here are some that I know". Supporting their self-evaluated rating of 'Quite good', W112 explained that "I can spell most words", while OE130 felt that she was "good at spelling". (Section 8.2 shows that these two students also rated their vocabulary as 'Quite good'.) These qualitative data therefore tend to support the spread of quantitative ratings shown in figure 8.5 above.

Correct spelling is an important aspect of writing, and as previously explained, a lot of time is given over to the instruction and practice of sentential level writing within Japan's school EFL education system. Why then is the spread seen in figure 8.5 not more to the left, i.e. positive? W110 provided a clue when she pointed out that "I'm not sure when the spelling is long". English does not have the one-to-one sound-to-spelling correlation exhibited by the Japanese language, which makes it more likely that errors will occur. Furthermore, "when the spelling is long", that is to say when a word has more letters, then there is a higher probability that a spelling error will occur. Add to this that the etymology of English words comes from numerous and often disparate languages, and these would explain why English spelling is so difficult for Japanese to learn and why W117 reported that she was "[v]ery poor at learning [spelling]". It might also explain why P124 perceives her spelling to be 'OK' because "[she] pay[s] attention not to misspell". It takes that higher level of care and concentration to avoid errors.

In section 7.9, I delayed discussion of the students' spelling issues in their writing, preferring to mention them here. The students generally did not identify specific spelling problems in their pre-project survey data. However, two that did arise are commonly occurring. The first was mentioned by P125: "I sometimes write ~sion instead of ~tion". This exemplifies the weaker correlation between spelling and pronunciation described above. Also, P134[9] highlighted a very common problem for Japanese EFL learners: "I

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[9] Not included in the quantitative analysis, as explained previously.

sometimes misspell 'l' and 'r'". Other common spelling mistakes include substituting b and v, and c (/k/) and k. There are three other general tendencies which commonly cause English spelling errors among Japanese EFL students. The first is to create consonant-vowel pairings, as Japanese does. This leads to a second tendency, to terminate words with a vowel sound. These two causes would, for example, yield *Makudonarudozu* (McDonalds). The third is to use multiple vowels when only one is needed, for example *baiku* (bike). Many of these errors stem from pronunciation problems, the causes of which are explained in a little more detail in section 8.4. Suffice to say here that Japanese students tend to spell in English as it would sound if the word was written or spoken using Japanese phonology (Smith, 1997). It was with these spelling difficulties that the three groups embarked upon their projects.

The field observation notes show that during the projects, students often checked spellings with me or that when checking their work, I noticed spelling errors in their writing which I helped them where possible to self-correct. These errors were generally of the types described above. They also tended to occur in new, project content-specific words which students had attempted to spell by themselves, for example 'vitamin', 'protein', 'beret', 'straw', 'environmental' and 'bouncy' (see appendix 19). Paradoxically though, longer, often technical words were often spelt correctly. This was because students had referred directly to their dictionaries, for one of two reasons. Firstly, they simply did not know the translation equivalent for the desired word so had to check it, which also yielded the correct spelling, for example 'radioactive contamination', 'evacuation', 'minerals' and 'carbohydrate'. Secondly, even though they may have known the word, being longer and likely more orthographically and/or phonologically complex, students wanted to check the spelling, for example 'entertainment', 'temperature', 'commercial' and 'population'. However, many of the corrected spellings did not appear on their SPA forms in response to item 3b (spelling) and many of the new words were not reported as new vocabulary in

response to item 2b (vocabulary), again suggesting that they need training in 'noticing', as recommended by Swain & Lapkin (1995). Perhaps they had simply been overlooked when writing the forms, but there is also the possibility that they only remained in short-term memory, used in-the-moment and were then discarded and lost. This latter would highlight the importance of giving students numerous opportunities to meet these new lexical items, and with it their spelling, in order to move them in to longer-term memory, as recommended by Waring & Takaki (2003) and Waring (2009). This in turn would argue for pedagogies such as the process approach to writing which, by requiring students to cyclically draft, review and rewrite their work, necessitates them meeting new vocabulary several times.

After working through their projects, students again rated their English spelling ability via item 3, the results for which are shown in table 8.7 below and in appendix 15, figure 3c.

Table 8.7: Frequency of change levels in self-reported spelling knowledge

Group	Moderate improvement	Slight improvement	No change	Slight deterioration
W (*n*=10)	1	0	7	2
P (*n*=7)	1	2	2	2
OE (*n*=6)	1	2	3	0
Total (*n*=23)	3 (13%)	4 (17.4%)	12 (52.2%)	4 (17.4%)

These findings show that perceived gains were made in spelling in nearly one third of participants, though over half remained unchanged and four perceived a slight deterioration, of which three had excellent attendance, further supporting the correlation between negative evaluation and high attendance highlighted in preceding sections. However, for three, their qualitative responses to item 35 (general EFL knowledge learning through PBLL) undermined their quantitative results. They reported:

W112: [c]orrecting my spelling, sentence orders.

W113: [making] fewer mistakes than before. I misspell less.

P122: [that] [r]epetitive practice has improved my spelling.

With these in mind, the adjusted quantitative findings shown in appendix 15, figure 3d reveal that actually ten students (43%) perceived improvement in their spelling.

That the perceived gains were largely only slight and at that for less than half of the sample, might be explained by the findings from the SPA forms' item 3a which asked students if they had corrected any spelling mistakes during the project session, the results of which are shown below in table 8.8 and figure 8.6.

Table 8.8: Results for SPA form item 3a: Spelling

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	18	17%
		No	85	83%
P (*n=8*)	5	Yes	12	33%
		No	24	67%
OE (*n=6*)	8	Yes	25	54%
		No	21	46%
Total (*n=27*)	22	Yes	55	30%
		No	130	70%
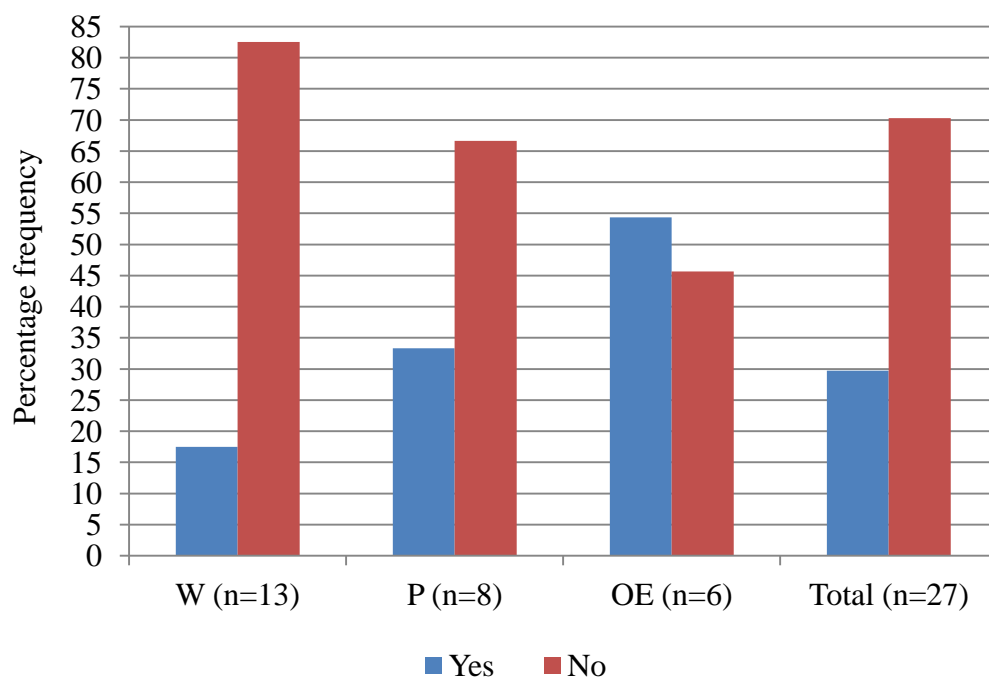
Figure 8.6: Percentage frequencies for SPA form item 3a: Spelling

Of the 185 cases including all participants across all project sessions, only 55 (30%) responded that they had corrected spelling. This would help to explain why the perceived gains in this area were not greater.

Qualitative item 3b on the SPA form followed up the quantitative item 3a by asking for examples of spellings that students had corrected. They usually provided only the corrected spellings, not the original, incorrect versions, so it was not possible to conduct an in-depth analysis of error types commonly repaired. However, appendix 19 does provide the results of a more rudimentary analysis to show the spellings corrected by each participant. In total, the spellings of 40 different words were reported corrected across 49 cases. Of these, 11 (28%) could have involved l/r substitution, eight (20%) b/v substitution and seven (18%) s/th substitution, showing that these error types were potentially substantially present. Even this more basic analysis highlights the need for teachers to check for these error types in their Japanese EFL learners' writing and to raise their students' awareness of them so that they can work independently to avoid them.

Appendix 19 also shows that the spelling of five words, 'mischief', 'bouncy', 'bathtub', 'street' and 'girly', were corrected by multiple students. This suggests that team members were working together, sharing information and helping each other to learn correct spellings. In other words, they were peer-teaching/learning. Of course, such sharing is beneficial where correct spellings are shared, but it can also be detrimental if erroneous spellings are exchanged, so it is recommended that teachers encourage the practice whilst also checking the results.

The post-project interviews made no mention of spelling and, due to the redrafting and high levels of teacher- and peer-support and corrective feedback provided via the process approach, the sample project output provided in appendix 16 shows no signs of the spelling errors that had occurred in earlier drafts. It is noteworthy though that the words in blue which were reported as new vocabulary learned, are all spelt correctly, as explained above.

To close this section, there are two final points for researchers and teachers to consider. The first is that, by cross-referencing appendix 15, figure 3d with appendix 19, it can be seen that student OE129 indicated moderate improvement in spelling but listed no spelling corrections on her SPA forms. Conversely, OE126 reported no improvement in spelling but identified the highest number of spelling corrections ($n=8$) in the entire sample. This inconsistency demonstrates the importance to researchers of respondents' active and considered participation when using data collection methods, such as surveys, which rely heavily on informants' recall.

The second is that beyond the perceived gains discussed in this section, there may be another, longer-term but more latent learning outcome. W114, who reported slight improvement, explained that "Even though spelling is difficult, I am better at it than before". This could be interpreted to mean improved spelling only of the particular words

which she used during the project. However, the process of noticing and correcting their own (and their peers') spelling errors might have helped to raise students' awareness, not only of errors in those particular words, but more broadly of error *types* such as substitutions, consonant-vowel pairing, terminating vowels and double vowel errors. When she wrote "better…than before", she may be referring not only to individual corrections, but more broadly to an improved capacity to better recognise these error types and to avoid them more successfully. Such a raised awareness could help students to notice and self-correct other spelling errors in words beyond those used for their projects.

8.4 Pronunciation

In this section I examine the data relating to the participants' reported learning outcomes for English pronunciation. For the purpose of this study, this is defined as the sounds made to represent a word based on its spelling (adapted from Richards et al, 1992, p. 296) and assumes North American or British received pronunciation (RP) rather than regional dialects or other national Englishes because those are the models generally used in Japanese EFL classes and to which Japanese EFL students generally aspire.

As mentioned in section 7.6, the pre-project interviews revealed that little attention was given to aspects of speaking in the school EFL classes which the eight informants attended. Only Azusa and Ayaka, who had attended the same high school, made any mention of pronunciation when asked about their prior school EFL experiences:

Paul: OK. What about pronunciation?

Azusa: We studied pronunciation by repeating what the teacher said.

Paul: Hmm. 「Turns to Ayaka」

Ayaka: The teacher didn't repair our pronunciation.

Where it is given attention, pronunciation in Japanese school EFL classes is usually practiced by class drilling. "Repeat after me" was a commonly heard phrase from my JTE colleagues while I was a junior high school ALT, a practice which Azusa's more recent experience shows still exists. Why Ayaka's teacher did not repair her pronunciation errors is unclear, though large class sizes and time constraints may have been factors. Ohtaka (1996) and Chujo (2010) also point to a lack of confidence among many JTEs in their own English pronunciation, which may have been another contributing factor.

There is of course a strong link between pronunciation and spelling, the latter being a written representation of the former. However, as stated in section 8.3, Smith (1997) notes that Japanese EFL learners often tend to spell English words using Japanese phonology. She goes on to say "[pronunciation errors] arise because of the nature of Japanese words written in katakana" (ibid.).

That is to say, Japanese EFL learners not only tend to access their native phonology to spell English words, but that they also do it when pronouncing English, often regardless of how the spelling shows that it should be pronounced. This common underlying cause results in many of the same problems with English pronunciation as were highlighted in the previous section with respect to spelling. It also makes consonant clusters difficult. For example 'scream' would be pronounced '*sukureemu*'. Collectively, these errors are commonly referred to as 'katakana English', katakana being a Japanese syllabary representing the consonant-vowel pairings characteristic of Japanese phonology which is the source of many of their English spelling and pronunciation errors. As Mindog (2016, p. 14) points out: "Katakana pronunciation is deeply entrenched in most Japanese students' interlanguage". It is therefore extremely difficult for them to correct English pronunciation errors once they have become fossilised, even if they recognise them as such. Smith (2014, p. 50) even states that:

> [the] Japanese method of pronunciation is a major barrier to effective communication in English. The fear of speaking English with a Japanese accent is a large factor in why Japanese learners of English lack confidence in their oral communication ability.

This goes some way to explaining why their self-ratings of English speaking ability were generally low before and even after the project (see section 7.6) and why these participants used more Japanese than English during the project (see section 7.4). These phonological and affective barriers help to explain why the pre-project ratings of English pronunciation ability, shown in figure 8.7 below, are skewed to the negative.
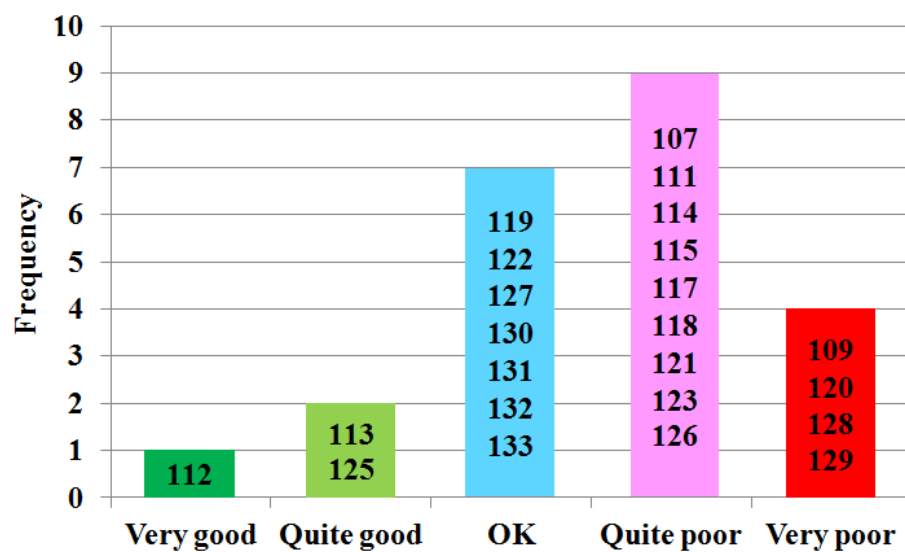
Figure 8.7: Frequency of pre-project ratings for pronunciation knowledge

In describing their English pronunciation, W117 and P119 felt that they had improved in their first year at the college, while W118 saw it as "not enough" and OE130 was aware that there were some words that she did not know how to pronounce.

Several reasons for the low ratings were offered from the students' perspective and these relate in several ways to points already raised in this chapter. Having rated herself as 'Very poor', W109 was frank when she explained that is was "[b]ecause I have learned how to pronounce English words in katakana". This is probably a painful admission for some Japanese students to make because they are aware of the gap between English RP and katakana pronunciation and how strange it makes them sound to native English

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speakers' ears when they speak English. This may also have been a contributing factor in her self-evaluation of her speaking ability as 'Quite poor' (appendix 14, figure 1a and 1b).

Others who rated themselves as having 'Quite poor' pronunciation highlighted several issues. W110 for example wrote "I understand it in my mind, but cannot pronounce them appropriately", suggesting that she was having difficulty in physically coordinating the tongue, jaw, vocal chords and lungs. This same problem may also explain why W114 "[could not] speak English fast and fluently". W111 and W115 understood that phonetic symbols would be a useful pronunciation learning aid but that they could not read or understand them. In writing that "I didn't care about pronunciation as much as spelling" OE126 hints at her belief that writing is more important than speaking, which may stem from the dominance of the former over the latter in her prior school EFL studies and exam-taking experiences. The weak correlation mentioned above between English spelling and pronunciation may explain why P134 "can't pronounce words I don't know". P123 and W114 simply found it "difficult".

Among those who rated their pronunciation more highly, OE127 reported that her pronunciation was 'OK' because she "listened to foreign music and English learning products", which suggests that she was using auditory feedback while singing the songs and doing the drills to mimic, i.e. shadow the sounds, thereby practicing the coordination of the physical elements needed to produce 'correct' pronunciation.

Two others referred to a point also raised in section 8.3, where P124 felt that her spelling was 'OK' because she "paid attention" to avoid errors. Along with W113, she took similar care in her pronunciation:

P124: I try to pronounce well.

W113: I'm careful about pronunciation.

Two particular difficulties already discussed above and in section 8.3 were also reported by the participants:

W113: I pay attention to pronouncing especially 'r' and 'l'.

P121: 'Th' pronunciation is especially difficult.

For the reasons outlined above, pronouncing English correctly is difficult for many Japanese students, so in common with spelling, they often have to give it a high level of attention. This high attentional load means that less attention is available for other aspects of speech such as fluency, lexico-grammatical accuracy and sociolinguistic competence, which likely suffer as a result.

Findings reported in section 7.2 show that students spoke English during their projects, though those of section 7.4 indicate that they did not make the most of their chances to do so. However, there were indications of peer-learning in pronunciation, as noted by OE129: "I can learn from my classmates who have good pronunciation". There was also the following exchange while discussing the benefits of PBLL in the Writing group's post-project interview:

Paul: OK. Does project-work have any other good points?

Sayaka: We can teach each other things we don't understand.

Paul: What do you think you didn't understand?

Sayaka: Grammar and sentences and vocabulary and pronunciation.

The field observation notes also recorded that students took a greater interest in, and care with their pronunciation as they moved into the rehearsal phase, in preparation for the show-and-tell, prompting several students to ask me "How do you say this?".

After the show-and-tell phase, the post-project survey was administered to obtain data from which to measure changes in self-ratings. The results for item 4 relating to pronunciation are shown in table 8.9 and in appendix 15, figure 4c.

Table 8.9: Frequency of change levels in self-reported pronunciation knowledge

Group	Slight improvement	No change	Slight deterioration
W (*n=10*)	3	5	2
P (*n=7*)	3	3	1
OE (*n=6*)	2	4	0
Total (*n=23*)	8 (34.8%)	12 (52.2%)	3 (13%)

Item 4 yielded little additional qualitative data to assist in interpreting these quantitative results. However, those which were reported provide support for points already made. For example W114, who had previously found English pronunciation "difficult", reported making a slight improvement because "I pay more attention to my pronunciation now", showing that giving more attention to pronunciation, perhaps through auditory feedback, can aid learning. P123 supported her perception of a slight improvement by writing "I improved pronunciation" and even **OE130** whose quantitative result showed 'No change', conceded that "[m]y pronunciation got better than when I was in high school".

Two students acknowledged the value of a native speaker in TL learning. P123 ascribed her perceived slight improvement to "asking Paul", presumably how to pronounce words, and W112 felt that "[l]istening to English spoken by the teacher is important".

Analysis of the SPA data gave a more detailed view of the types of pronunciation errors which they corrected as a result of their projects. SPA item 4a asked if students had corrected any pronunciation mistakes during the project sessions. The results are shown in table 8.10 and figure 8.8 below.

Table 8.10: Results for SPA form item 4a: Pronunciation

Group	Project sessions	Response	Frequency	Percent
W (*n=13*)	9	Yes	10	10%
		No	93	90%
P (*n=8*)	5	Yes	0	0%
		No	36	100%
OE (*n=6*)	8	Yes	5	11%
		No	41	89%
Total (*n=27*)	22	Yes	15	8%
		No	170	92%
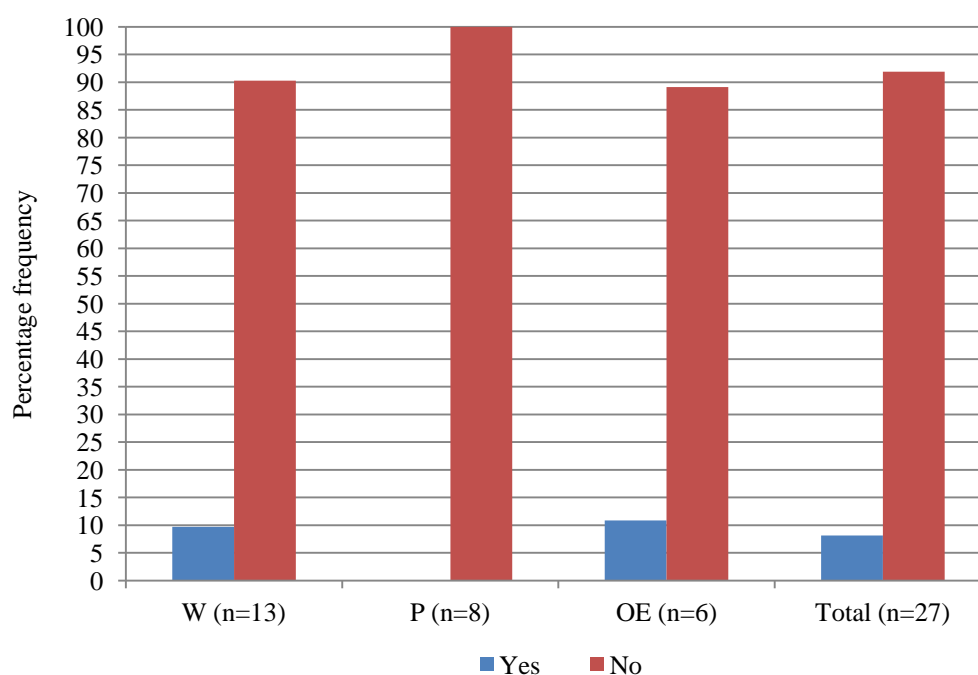
Figure 8.8: Percentage frequencies for SPA form item 4a: Pronunciation

Of the 185 cases recorded with all students and across all project sessions, only 15 (8%) show that they corrected pronunciation during a project session. Appendix 20 shows the results of an analysis to see which types of pronunciation errors were commonly corrected. As with spelling corrections in section 8.3, students did not indicate exactly where the pronunciation error occurred, so it was not possible to know precisely which phoneme(s) was corrected but, as expected, l/r, b/v and s or z/th substitutions, consonant-vowel pairings and terminating vowels could have contributed up to 12 (71%) of the 17 corrections reported.

A review of the videos of the Writing group's news stories, Presentation group's presentations and the Oral English group's infomercials reveals some interesting anomalies. The usual error types mentioned above were still evident to varying degrees, so clearly they had not been completely eradicated. It did seem that they were less prevalent than might normally be the case, perhaps due to rehearsal, but this is speculative. The most interesting point though was the high degree of inconsistency with which even the same student would pronounce and mispronounce the same sound. For example referring to the sample script provided in appendix 16, where mispronounced sounds are underlined, it can be seen that Shiho (the 'reporter') mispronounced /th/ with /s/ or /z/ substitutions in 'ear<u>th</u>quake' (turns 1 and 6), '<u>th</u>inking' (turn 8) and '<u>th</u>ink' (turn 14), but not for other occurrences of the same sound, even within the same word, for example 'Thank' (turn 3) and 'think' (turn 18). Similarly, Hana, (the 'expert') pronounced 'radioactive' correctly in turn 21 but substituted the /r/ for /l/ in turn 25. Even between two video recording takes of the same line, the same student might mispronounce one time but not the other, for example in turn 23 when Hana first substituted /th/ with /z/ in "Yes, <u>th</u>at's right", but then got it right on the second take despite no mention of the error by anyone.

These examples seem to eliminate possible explanations for mispronunciation such as dependency on preceding or following phonemes or word complexity. Instead they tend to point to momentary lapses in attention. The pedagogic implication here is that while rehearsal and other forms of practice such as singing, drilling and shadowing (OE127) may help to train for control of the complex physical coordination needed to produce sounds correctly, the students should also understand the substantial role consciously attending to pronunciation plays in preventing errors.

In summary, as appendix 15, figure 4d shows, only nine participants (39%) perceived a slight improvement in their English pronunciation by working through these projects. This

is perhaps not surprising. As previously explained, the error types represented by the majority of corrections shown in the analysis in appendix 20 are highly fossilised, stemming as they do from the learners' L1 phonology, so would not be easily or entirely resolved without targeted instruction and extensive practice beyond that offered by these projects. In light of this, even the perceived slight improvement among only some of the participants may be considered noteworthy.

8.5 The effect of project-work on learner EFL study motivation

Parts of the data also suggest ways in which the project-work acted to enhance these learners' motivation. Here I take Elliott & Covington's (2001) definition of motivation as the drive which directs a person to initiate and/or continue a particular behaviour, in this case the study and practice of EFL. A few students specifically used the word 'motivate' (or a related form) in responses to their post-project surveys or interviews as shown below with associated survey item numbers (appendix 8) parenthesised:

(Item 41) W113: I had to work on the project at home, and didn't like having less spare time. However, I was motivated because it was group work.

(Item 54) W132: Because it is motivating, I can learn English without much effort.

Azusa (OE): At high school, I had no intention of speaking English but now I can motivate myself to speak English.

Other post-project statements did not use the word 'motivate' but did pertain to PBLL-related behaviours or outcomes which could potentially have that effect. An illustrative sample is presented below.

Teams could personalise their response to a project's assignment by choosing topical content of personal interest and/or relevance to themselves:

(Item 43) OE128: We could choose a topic which we liked.

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(Item 43) P133: I could choose what I'm interested in.

(Item 53) W132: Project-work is interesting because I can choose the theme I want to work on.

This also made learning about the project-related content and studying/practicing English more enjoyable:

(Item 41) OE126: I did not mind using my own time because it was rather fun since it was something I am interested in.

(Item 48) W112: Learning through the project was fun.

Sumiko (P): I started to like making scripts. I enjoyed it.

Furthermore, item 28 asked how much they had enjoyed doing the project. Of the 24 responses, eight (33%) were 'Very much', 13 (54%) 'Quite a lot' and only three (13%) 'Only a little'. No-one selected 'Not at all'.

Section 7.3 clearly shows that students had ample opportunities to practice the TL for purposeful communication:

(Item 16a) W112: In this project I could apply what I learned in junior high and high school.

(Item 48) P125: In projects we can practice writing skill to draft and listening skill to listen to introductions of other groups.

Azusa (OE): At high school, yes we had a few opportunities to speak English but not as much as we do now in our group presentation.

Eyring (1989) showed that some students might not evaluate extensive opportunities for TL practice positively. However, where they do, it seems reasonable to assume that it would encourage (i.e. motivate) them to continue to engage with the approach, especially

when, as in at least some cases here, it was perceived as helping them to consolidate their TL knowledge and/or skills:

(Item 16f) W109: I felt that I had been using the same writing patterns, so the project reinforced my idea of how to write.

(Item 36) W109: I could make sure of the grammar I have learned.

Ayaka (OE): Before, yes, I did like English, but I couldn't speak and there were many things I didn't understand, but when I entered university and started to learn English in this course, I feel I began to understand a little more.

Other outcomes reported by these students which would likely impart a motivating effect include:

a). an enhanced sense of responsibility and ownership of their work:

(Item 16b) P123: Everyone decided and took our share of contents.

(Item 35) OE131: I think it is good to work in a group because we all have responsibility.

(Item 41) P125: I had little time at home because of research but I could keep working when I believed group members did same.

b). satisfaction with their achievement:

(Item 35) P133: I had a sense of achievement when it was completed because I had to work for them with a feeling of responsibility.

(Item 48) P120: I did not know anything about presentation, and I was really glad that I could learn it.

c). enhanced learner autonomy:

(Item 38) OE127: I learned how to learn English proactively.

(Item 45) W117: We get to think on our own instead of always being taught.

(Item 45) OE129: I can learn more not only by listening to the teachers but also working by ourselves.

d). peer-teaching/learning:

(Item 36) P120: Someone in my group corrected my mistakes.

(Item 36) W111: My friends corrected my mistakes and taught me the words I didn't know.

(Item 43) OE129: When I am lost, my classmates help me.

e). higher levels of one-to-one teacher-student interaction:

Makoto (W): I'd like to study with projects. At junior and senior high school English lessons only teachers talk during the lesson and students cannot even ask questions, but in the case of project-work the teacher comes to us and we can teach each other.

f). the social/collaborative nature of project-work:

(Item 38) P120: We could all corporate on what we didn't understand.

(Item 53) OE127: Project-work is good because we cooperate and learn English.

g). PBLL's cognitive and creative aspects:

(Item 53) W109: Project-work is difficult because it is something we have to make from scratch, not something you can imitate.

(Item 54) W115: Creating a story was fun.

Furthermore, it seems reasonable to assume that the exchange of ideas and opinions, and having one's own considered and accepted by one's peers would likely elevate a learner's sense of self-worth and with it the motivation to continue those behaviour(s) that bring that outcome about:

(Item 48) P123: I could learn many things from other group's explanations and ideas.

(Item 53) OE130: Project-work is worth doing because I could hear different opinions from my own.

Finally, section 7.2 shows that many of the students viewed PBLL as a "practical" approach to EFL learning and practice. Again, it seems likely that when students evaluate a pedagogic approach positively, they would be encouraged to continue to engage with it.

In summary, it seems that many of the students gained a motivating effect from one or more of the above project-work-related behaviours or outcomes, many of which have also been identified by Stoller in her analysis of PBLL-related articles as being commonly reported beneficial outcomes of the approach (2006, p. 25).

8.6 Summary

The results presented and discussed in this chapter enable comparisons of the perceived gains in grammar, vocabulary, spelling and pronunciation to highlight key similarities and differences between them. They also facilitate comparisons between perceived gains in those aspects of language knowledge and the perceived language macro-skills development reported in Chapter 7.

Referring to appendix 15 and comparing figures 1a with 1b (grammar), 2a with 2b (vocabulary), 3a with 3b (spelling) and 4a with 4b (pronunciation), it can be seen that while the pre-project self-ratings ('a' figures) for these areas are all skewed to the right, i.e. poor or at best neutral, those for the post-project self-ratings ('b' figures) have all moved somewhat to the left to become more positive. Furthermore, while the most frequent pre-project self-rating for grammar, vocabulary and pronunciation was 'Quite poor', that had improved post-project to 'OK'. That for spelling remained unchanged at 'OK' but there was still an overall shift towards the positive end of the scale. These observations

show that PBLL was perceived by students to assist in EFL learning across all four knowledge areas, albeit to varying and slight degrees. It also shows that this is discernible using only self-ratings, without recourse to calculating levels of change. However, that additional step, together with the use of participant numbers to track individuals' changes in self-ratings, added a much finer resolution to the results, making them far easier to interpret in more detail, especially when used in tandem with related qualitative data.

One difference which these figures make easily visible is that self-ratings for spelling were more positive both before and after the project-work than those for grammar, vocabulary and pronunciation, which is why only spelling's most frequently occurring self-rating started in neutral territory while the others started in the negative. It also had more 'Quite good' and fewer 'Very poor' self-ratings pre-project than the other areas. This suggests that students are somewhat more confident in their spelling than in their grammar, vocabulary and pronunciation, perhaps because they may have had frequent vocabulary and spelling tests at school, though in some cases this confidence may not always have been justified.

Alternatively, perhaps spelling stands slightly higher not because the students were particularly confident in their spelling, but because they had even less confidence in the other areas. Initially low self-ratings for grammar for example were attributed to reports that students found EFL grammar "difficult" and confusing, among other expressions indicating low confidence. This was presumed to be due to the high degree of markedness between Japanese and English (Chiswick & Miller, 2005). Also, the initially low self-ratings for vocabulary were attributed to reports suggesting a lack of recall ability and comprehension, perhaps because students had not met and/or used the vocabulary often enough during school EFL lessons. Finally, those for pronunciation were attributed to students' perception that their English pronunciation was strongly adversely influenced by

the Japanese phonological system. So it may be that initial self-ratings for spelling started slightly higher, not because it was perceived as good, but because it was not perceived to be as bad as for the other areas.

Moving from the results for self-ratings, table 8.11 below summarises those for levels of perceived change reported for grammar, vocabulary, spelling and pronunciation. Immediately obvious is that there were no reports of substantial improvement for any of those areas. It also shows that overall, while 16 students[10] (70%) perceived improvement in their grammar, 21 students (91%) reported improvement in their vocabulary. This agrees with Kemaloglu (2010), who also found that perceived improvement in vocabulary through EFL PBLL exceeded that for grammar.

Table 8.11: Summary of QUAN results for TL knowledge learning outcomes

	Grammar (*n=23*)	Vocab. (*n=23*)	Spelling (*n=23*)	Pron. (*n=23*)	Total	%
Substantial improvement	0	0	0	0	0	0%
Moderate improvement	3	0	3	0	6	6.5%
Slight improvement	12	21	7	9	49	53%
No change	8	2	10	11	31	34%
Slight deterioration	0	0	3	3	6	6.5%
Moderate deterioration	0	0	0	0	0	0%
Substantial deterioration	0	0	0	0	0	0%

Analysis of the qualitative data showed a wide range of grammar points and vocabulary perceived as learned, improved or corrected (appendices 17 and 18 respectively). These

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[10] Three moderate improvement + 12 slight improvement + W108 (see page 226)

mainly related to language needed to express topic-specific information. Similar analyses for spelling and pronunciation revealed that many of those reported as corrected were potentially related to the error types frequently caused by interference from the Japanese 'katakana' phonological system. Furthermore, comparing the frequencies of reported improvement showed that while those for grammar and vocabulary, reported above, were relatively high, those for spelling (n=10, 43%) and pronunciation (n=9, 39%) were relatively low. Again this may be due to the strong but adverse influence of their L1's phonological system.

Comparing the results for the four language knowledge domains with those for the four language macro-skills reported in Chapter 7 is somewhat problematic, firstly because they are two distinctly different things and secondly because those for language skills are more disparate. This in itself might suggest that, at least in terms of students' perceptions, development in each skill is more independent of the others than gains in areas of language knowledge. However some similarities and differences can be noted. For example, comparing appendix 14, figures 1a with 1b, 2a with 2b, 3a with 3b and 4a with 4b, and their counterpart results for language knowledge in appendix 15, shows that all eight EFL domains examined in this study showed a shift in students' self-rated proficiency from an initial, negative skew pre-project towards the positive side of the scale by the end of the eight-week long projects. That this shift for speaking was barely discernible is ascribed largely to the qualitative reports from several students acknowledging their excessive use of L1 rather than L2, and the resultant negative affective impact this had on their sense of self-efficacy as EFL learners, in line with Mori (2008).

Also, in common with grammar, vocabulary and pronunciation knowledge domains, the most frequent pre-project self-rating for speaking, reading and writing skills was 'Quite

poor'. However, while all of those knowledge domains saw a shift in peak frequency to 'OK' by the projects' end, a similar improvement was only noted for writing skills, which had been used extensively in drafting project scripts. The peak frequency for post-project self-evaluations of speaking and reading skills remained 'Quite poor'. This is explained above with respect to speaking and may be explained with respect to reading by the comparatively small degree to which students used that skill in English during their projects. These results highlight the important role that practice has to play in skills development.

It was also shown through qualitative data from all three subject groups, that a wide range of behaviours and/or outcomes were exhibited by the participants and it was suggested that these could have imparted a motivating effect to many of the students to continue to study and/or practice English, or at least to continue to engage with the PBLL approach. While some of these factors, such as enjoyment, perceived EFL development and learner autonomy have been reported in the literature previously, others such as personalisation, peer-teaching and higher levels of one-to-one teacher-student interaction may be novel findings reported here for the first time.

In summary, this study's results show that despite the students' initial reports of generally low to very low levels of EFL macro-skills proficiency and language knowledge, as a result of working through PBLL projects in their EFL courses, they reported varying degrees of perceived gains in all eight of the domains examined in this thesis. This is believed to be a finding not reported elsewhere in the literature and unique to this study.

Chapter 9: Implications and conclusion

The results presented in Chapters 7 and 8 are encouraging, indicating as they do that PBLL is perceived by students to assist them in working towards their EFL macro-skills development and knowledge learning. The discussion of these results has also highlighted a number of implications for both PBLL and wider pedagogic practice. However, the study does have limitations which should be acknowledged here. This chapter therefore recognises the limitations of the study and discusses the key implications that have emerged from it, before making some suggestions for future research in the field of PBLL.

9.1 Limitations

The most important limitation in this study is that, as with Kemaloglu (2010), it investigated students' *perceptions* of EFL skills development and knowledge learning outcomes rather than *actual* learning through project-work over an extended period due to the methodological complexities involved in attempting the latter, explained in section 5.4.6. This is taken up again in section 9.3 as a suggested direction for future study. It may be the case that the perceived gains found here could have been achieved over the same period with other pedagogic approaches.

Another methodological limitation was that although the participants provided a rich dataset on a wide range of TL skills development and knowledge learning issues, they could only report or comment on what they noticed and recalled. Since it is unlikely that they noticed, recalled and commented on everything of potential use to this study, it must be conceded that some data were 'lost'. This was seen for example in the numerous non-responses to the SPA form's follow-up items asking for contextual examples of learning. The use of noticing and recall strategies prior to survey administration might

have helped to increase response rates and reduce data loss. They may also contribute to TL learning.

Finally, Gillham (2007, pp. 27-28) suggests that the number of questions on a survey should be kept to a minimum to avoid respondent fatigue and to enhance response rate and accuracy. However, to collect data on a wide range of potentially useful areas, the post-project survey contained 53 items. In retrospect, it would have been better to narrow the study's focus earlier in the research process, so as to reduce the number of items needed. Future research should try to take this in to account.

9.2 Implications for pedagogic practice

This study's results and subsequent discussion have spotlighted a number of implications for foreign language teachers interested in using PBLL in their courses, in particular with respect to how projects are organised, designed and implemented.

In the previous section it was suggested that noticing and recall strategies might have helped to reduce data loss when completing SPA surveys. Such strategies could also be used to help students reflect on what they have learned during each project session or over an entire project. This prompted noticing, recall and reflection should work to aid SLA by helping to move TL knowledge from short-term to longer-term memory.

Next, while the data showed that the majority of students prefer group work, it was not without its problems. In some teams, absenteeism, tardiness, difficulties in reaching a consensus and poor information-sharing left some members of a team doing much more work than others, causing some resentment towards the less participatory students and perhaps also towards project-work. It seems important therefore, in an attempt to ameliorate these problems, to raise students' awareness of these potential issues before starting a project, and to emphasise the highly collaborative and cooperative nature of

project-work. This could be achieved by sharing Wilhelm's (1999) guidelines with students, focussing in particular on "explaining and demonstrating student and teacher roles and responsibilities" (pp. 15-16). This should encourage students to negotiate, compromise and to be responsible for their own actions. It might also serve to proactively manage any disparate expectations between the teacher and students regarding what an EFL lesson or course should be. Eyring (1989) and Beckett (1999) have both shown that such mismatched expectations can cause problems if left unmanaged.

The results also show that project-work offers many opportunities for students to apply TL macro-skills, particularly productive skills. Which skills are used seems to depend largely on the needs of the task and their mode of study. For example, individual research requires reading and note-taking (writing), while group-based discussion brings speaking and listening to the fore. It was perhaps for this reason that several students evaluated their project-work as "practical". Others found that it had caused them to re-evaluate how language can be learned, practiced and taught. According to Beckett & Slater (2005), their Project Framework can assist in socialising learners to new approaches, but it seems that it is not always necessary to apply such interventions, as some learners here came to the same realisation simply by experiencing and reflecting upon their own project-work. This suggests that a valuable step in the project process would be to provide learners with opportunities to reflect on their project-work experiences post-project, as suggested by Stoller (2005). This could also be expanded to a brief reflection activity at the end of each project session, as suggested above, to aid SLA.

One major implication of this study's results is that the importance of properly preparing learners, particularly low-level learners, for the linguistic (and other) demands of their project cannot be understated. This recommendation is commonplace among literature dealing with project implementation, for example Haines (1989, p. 5) and Stoller (2002,

pp. 115-16). While some effort was indeed made along these lines by using introductory worksheets, these proved insufficient and should have been expanded in scope and duration.

The results showed that learners used Japanese extensively when their English resources were insufficient to progress their project. Furthermore, a natural tendency by some to use their L1 when possible, as it was in this EFL setting, means that once students start using their L1, they may continue to do so beyond the point of necessity. Ideally, a needs analysis would be conducted prior to designing a project to gauge students' language levels and areas of weaknesses, though logistics and administrative deadlines might make this unfeasible in some settings. Producing project-specific, level-appropriate introductory materials to prepare the students for the demands of a project should also help to reduce L1 use.

While a very basic introduction to PBLL was given to each group in this study in the first lesson of each course, the post-project interviews also revealed that the informants unanimously felt that a more comprehensive explanation of PBLL and its potential learning benefits would have been more helpful. Beckett & Slater (2005) have shown that through their Project Framework, such pre-project PBLL training can promote understanding and acceptance of the approach, even among those who come from traditionally more teacher-centred educational cultures, such as the Japanese college students that constituted this research sample. Alternatively, Kemaloglu (2010, p. 93) recommends easing students into the approach through a "balance" of traditional and innovative approaches. As students become more accepting of, familiar with and adept at project-work, that balance could shift more towards PBLL. To this end, resources such as Hardy-Gould (2003), which progresses from simple, small-scale projects to more advanced ones would serve well. Similarly, Haine's (1989, p. 7) suggests giving learners

chances to work in groups over increasingly longer periods, as well as collecting suitable resources and starting with small-scale, simple projects.

Somewhat related to Kemaloglu's (2010) suggestion above is the point, made by student P125 in her post-project survey, that project-work should be used with other methods. While PBLL clearly has many benefits, the TL is not being taught overtly or systematically as students work through their projects. It might therefore achieve better results if used in conjunction with other, more direct, instructional approaches, though preferably ones which share the Communicative Approach's assumptions about language learning and teaching, as PBLL does. These would include CLT and TBLL and would likely facilitate a smoother transition back and forth between instruction and project-work.

Results in sections 8.3 and 8.4 have highlighted that in the Japanese context, certain spelling and pronunciation errors occur much more frequently, in this case largely due to phonological differences between Japanese and English. This suggests that teachers should familiarise themselves as much as possible with the phonological differences between their students' L1 and the TL in order to better diagnose the cause(s) of their students' spelling and pronunciation errors and to be able to respond to them. This finding, together with another, that students make fewer mistakes if they pay closer attention to their spelling and pronunciation, suggests that it could be useful to highlight those common mistakes to their students and to encourage them to self-correct for them during TL use, since awareness of these relatively few error types could significantly reduce the number of errors made. These more common errors might also become the target of overt instruction prior to project commencement. Furthermore, participants W111 and W115 reported that it would be useful if they could read the International Phonetic Association's phonetic symbols in their dictionaries. It might therefore be worthwhile teaching these symbols so that students can read, learn and apply correct pronunciations from dictionaries

for themselves. This would help students to become more autonomous learners and to take more responsibility for their EFL education, which is one of the distinguishing features of PBLL.

In addition, student OE127 seemed to be using auditory feedback when she shadowed English songs and English learning products. This might form the basis of useful and enjoyable pronunciation activities. Finally, teachers should pay particular attention to the more commonly occurring errors when checking students' work and giving corrective feedback in order to highlight their disproportionately high frequency to students.

Another important implication relates to considered, level-appropriate, objective-oriented project design. In this study it was hoped that the Oral English group's television infomercial project would have yielded larger reported gains in speaking, in line with the course's goals. While there was a perceived improvement, it was only slight, perhaps due to the extensive period of time spent developing their written scripts, as evidenced by the fact that they also perceived a slight improvement in their writing skills, which was not a course objective. This is an example of insufficient fit between project design and course objectives. It seems intuitive that the closer the fit between the demands of a PBLL project and the course goals which that project is supposed to work towards, the more likely it is that those objectives will be met.

While interest in PBLL is increasing in Japan and elsewhere, much work remains to be done in producing materials and activities that help teachers to socialise their students to the approach and to implement it successfully. For example, the importance of adequate pre-project instruction has been highlighted, yet no generalised guidelines seem to exist to help teachers make such materials for themselves, despite some writers acknowledging the importance of this stage (see Haines, 1989; Stoller, 2005). It was also suggested that a balanced course comprising mutually reinforcing instruction and project-work could

enhance language learning outcomes, yet while some project-based photocopiable resource books are available (see Haines, 1989; Hardy-Gould, 2003), few such course books have been published (see McMahon, 2005; Fessler, 2007; Suzuki, 2008, 2009). Therefore, more teaching materials should be developed which combine communicative approach instruction materials with PBLL project-work.

A final implication relates to research methodology. In this study, far more data were collected than could be used, which resulted in time, energy and funds being taken up unnecessarily, delaying progress and submission. By their nature, doctoral theses tend to evolve as they progress, but these problems could be ameliorated if the doctoral researcher clearly understands the scale of the dataset needed to answer the research question as early in the process as possible.

9.3 Future directions

In section 9.1, I acknowledged the limitation in this study that it does not show *actual* EFL learning but *perceived* gains due to the methodological difficulties involved in the former (see also section 5.4.6). This is perhaps the greatest challenge facing PBLL researchers: How to demonstrate actual TL macro-skills development and knowledge gains that can be unequivocally attributed to PBLL project-work. Ideally, future studies will find ways to overcome these methodological problems to collect such support, and thereby greatly strengthen the case for the approach, though this would likely involve higher degrees of control than were present in this study. A possible solution might be to apply Simpson's (2011) research design and tools (see section 3.4) with more structured projects that have very specific, predetermined TL learning goals. This might offer more exact measurement of particular TL knowledge and skills outcomes. More problematically, the research design would also have to try to account for learning attributable to other sources during the extended project period.

"I hear and I forget; I see and I remember; I do and I understand." This adage speaks to the power of active learning. It suggests that skills developed and knowledge acquired through 'learning by doing' are retained for longer and learned at a deeper level by virtue of the learner's more physically and cognitively active participation in the learning process. Is this the case with pedagogic approaches, such as PBLL, which utilise active learning? Is learning via PBLL susceptible to the same rates of recall degradation exhibited by other, more traditional pedagogic approaches, or is it retained for longer because of the more personal, experiential way in which it was acquired? A longitudinal, comparative study might be set up to answer this question. It would first need to establish what precisely had been learned via a PBLL project, which as mentioned above presents its own serious methodological challenges, then have to examine how much of that learning is retained across various time intervals. It would then have to compare those results with rates of loss associated with alternative approaches. However, if it were shown that learning via PBLL is retained for longer, whether because of the nature of active learning or for some other reason, it would add yet more weight to the case for the approach.

In the previous section it was suggested that prompted noticing, recall and reflection activities might aid TL learning. It would be useful to conduct a study comparing the actual and/or perceived learning of two groups, one using such activities and the other not. Positive results would support the inclusion of a reflection stage in the project process, as recommended by Stoller (2005), as well as for learning in general.

Four language skill and four language knowledge domains were examined here, but a more targeted and detailed study of the learning outcomes of each through project-work would in itself make useful contributions to an understanding of those individual areas. Furthermore, a lot of data relating to learner autonomy, peer-learning and several of the other potential learning and affective benefits of PBLL reported by Stoller (2006, p. 25)

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were collected and coded but could not be included here for practical reasons. However, while coding those data, it became clear that several students perceived enhanced learner autonomy through PBLL and found the opportunities which their projects had provided for peer-learning/teaching to be useful, enjoyable and rewarding. Examination of these areas too deserves greater individual attention to add breadth and depth to our knowledge of the approach and its perceived or actual learning outcomes. The more that is understood about how project-work might be used to develop language macro- and micro-skills, aspects of TL knowledge, other components of communicative competence and other areas, the more teachers can tailor and apply project-work to meet their students' particular learning needs.

Though the three groups in this study were relatively small (*n=6*, 9 and 13), necessitating only two to four project teams per class, it seems important to know how learning outcomes are affected in larger classes requiring higher numbers of project teams, as this would logically seem to limit the time a teacher can spend with each team and increase the time students must wait to receive attention from the teacher. Future research using larger class sizes would show what impact, if any, this has on learning outcomes including learner autonomy, particularly if conducted as a comparative study including smaller class sizes doing the same projects.

One of the major implications highlighted in the previous section was that some students, especially those coming from predominantly traditional educational backgrounds, may need to be trained or socialised to PBLL, particularly because of its emphasis on personal responsibility and greater learner autonomy. This can be achieved through good practice such as proposed in Wilhelm's (1999) guidelines for collaboration, or direct interventions such as Beckett & Slater's (2005) Project Framework. However, little has been published showing their application (see Guo, 2006; McCarthy, 2010; Naqvi & Mathew, 2010 for

studies applying part or all of the Project Framework) and to date no published study beyond Beckett & Slater's (2005) original paper has sought to assess the Project Framework's efficacy or functionality. Given that the success of project-work depends to a large extent on how much students accept and engage with the approach and that the Project Framework seeks to realise that outcome, it would be useful to know how effective it is in doing so in various settings. The design of alternative, additional interventions would also be helpful so that a teacher could choose the one(s) best suited to their own teaching context.

The more that is known about PBLL's implementation and associated learning outcomes, and the more those outcomes might be evidenced through a growing body of empirical study, the stronger the case for its inclusion in foreign language classrooms would become. Also, the more teaching materials and design guidelines that are available to help teachers use the approach more easily, the better equipped those teachers will be to use it to good effect and the more widespread uptake of the approach might become.

9.4 Conclusion

In conclusion, this study used PBLL projects, one in each of three EFL courses at a Japanese junior college to examine the extent to which they were perceived by students to help them to develop their EFL macro-skills and grammar, vocabulary, spelling and pronunciation. The study used pre- and post-project interviews and surveys in conjunction with the teacher/researcher's field observation notes taken during the project sessions, SPA forms completed by students at the end of each project session and the students' output from their projects, to compile a multi-perspective dataset. Analysis and discussion revealed that the extent of students' self-reported improvements in EFL skills and knowledge resulting from these short-term projects were only slight, suggesting that

incorporating PBLL projects into Japanese junior college EFL courses can be beneficial but that greater gains may require longer timeframes and more support.

It is therefore recommended that project-work should continue to be incorporated into the institution's EFL courses. However, closer attention and more contact time should be given to helping the students to transition to project-work from the more traditional pedagogies which they have previously experienced and with which they are more familiar. Initially these projects should be simpler and shorter to familiarise the students with the roles and responsibilities they will have to take in subsequent, larger and longer projects. Greater attention should also be given to preparing the students for the language, content and other demands that each project will make of them in order to promote TL use over L1 use, to build learners' confidence in using the TL and thereby to increase the extent of the perceived or actual language learning gains. Given this study' results, students should also be made aware that it takes time for TL skills to develop and TL knowledge to accrue perceptibly and that they should not expect substantial gains over short-term duration projects such as those used here.

More broadly, project-work seems to offer a wider diversity and depth of learning outcomes and experiences than other, more traditional approaches and so deserves consideration for inclusion when designing EFL courses and/or programs. However, rather than a project being the mainstay of a course, as it was here to some extent, project-work could be designed into a course in such as way as to work towards learning objectives while complementing and supporting other forms of instruction. This would lead to more balanced courses more likely to meet both the learners' expectations of what an EFL course should be and their learning needs, thereby improving learning outcomes, which is surely the goal of all language learning and teaching.

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Appendices

Appendix 1: Reported defining characteristics of PBLL in ranked order

In compiling this analysis, a defining feature was marked as being present (✓) in a work if it was overtly stated or implied through the content.

Rank	Reported defining characteristics	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
1	Project groups create an end product or reach an agreed goal.	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	13
2	Students work in groups, collaboratively or cooperatively.	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓	✓	✓		12
3	For the purpose of integrating and/or acquiring TL skills.	✓	✓	✓	✓					✓	✓	✓	✓			✓		9
	Project run over an extended period of time		✓	✓	✓		✓			✓	✓	✓			✓		✓	9
4	Project work is conducted in the TL.	✓	✓					✓		✓	✓	✓	✓			✓		8
5	Projects create the situational context for genuine communicative need.		✓			✓		✓		✓	✓	✓						6
	For the purpose of acquiring TL knowledge.	✓			✓					✓	✓		✓			✓		6
	Students locate their own source, information or research material		✓				✓			✓	✓				✓		✓	6
	Emphasises learner autonomy or responsibility for one's own learning		✓				✓			✓	✓				✓		✓	6
	Students plan their work		✓							✓	✓				✓	✓	✓	6
	The topic is decided by students (in line with Self-Determination Theory)	✓					✓			✓				✓		✓	✓	6
6	Subject matter is of relevance and/or of interest to students.	✓		✓	✓					✓	✓							5
	Projects require students to apply social skills.	✓	✓							✓	✓	✓						5
	Projects are student-centred	✓	✓							✓	✓		✓					5

#	Item														Count
7	Projects use a sequence of related activities or tasks.		✓			✓			✓	✓					4
	Project require students to work or study beyond the classroom		✓					✓	✓	✓					4
	For the purpose of integrating and/or acquiring content skills.					✓		✓	✓	✓					4
	Projects require students to apply cognitive skills	✓	✓						✓	✓					4
	Learning through inquiry	✓							✓	✓			✓		4
	Projects offer students opportunities to apply creativity and imagination.		✓					✓	✓			✓			4
	Address real-world problems or issues.	✓						✓				✓		✓	4
8	For the purpose of integrating and/or acquiring content knowledge					✓			✓	✓					3
	The teacher facilitates or advises in various capacities.	✓						✓						✓	3
9	Experiential learning		✓						✓						2
	Used to evaluate students' competence in content matter	✓						✓							2
	A real audience is valuable				✓			✓							2
	Realistic, authentic and/or meaningful learning experiences	✓						✓							2
	Projects are constructivist in approach	✓	✓												2
	Caters to all abilities and/or mixed abilities							✓				✓			2
10	Projects use what students already know, i.e. are they are constructivist.							✓							1
	Projects integrate TL and content.					✓									1

Rank	Reported defining characteristics	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
	Projects utilise authentic material for L2 input		✓															**1**
	May require students to collect, analyse and summarise data.											✓						1
10	Use of technology	✓																1
	Connect with the outside world												✓					1
	Can be interdisciplinary																✓	1

Key:

1: Krishnan & Ling (2010, pp. 10-11); **2**: Hedge (1993, pp. 276-277); **3**: Yoshida (2008, p. 15); **4**: Stoller (2005, p. 10); **5**: Vincent (1990); **6**: Kobayashi (2006, p. 71); **7**: Eslava & Lawson (1979); **8**: Zhang (2010, p. 69); **9**: Wilhelm (1999); **10**: Haines (1989); **11**: Sheppard & Stoller (1995); **12**: Fushino (2010); **13**: Fried-Booth (2002, pp. 6-7); **14**: Beckett (2002, p. 54); **15**: Legutke & Thomas (1991, pp. 160, 214); **16**: Henry (1994, pp. 12-13)

Appendix 2: Sample project introductory worksheet (Oral English group)

TV infomercials - What are they?

Task 1: Think of a TV commercial you like. Tell your partner about it and explain why you like it.

Task 2: Watch these four TV advertisements. Try to understand the messages. Then answer the questions in task 3.

1. Nissan car

Clipart image
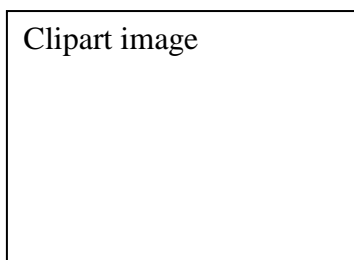
2. United States Postal Service

Clipart image

3. Super Clean

Clipart image

4. 1-800 PICKLES

Clipart image
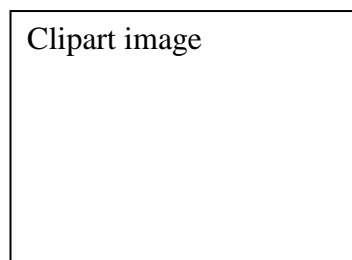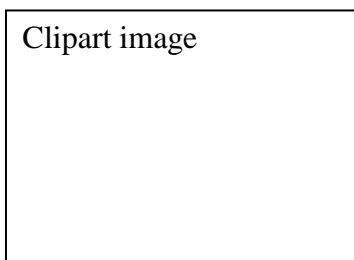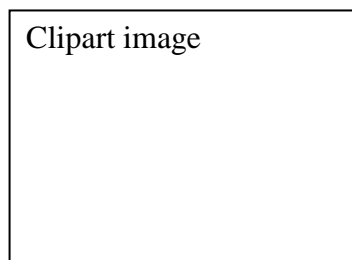
Task 3: Answer these questions by with your partner *in English*.

1. Which two commercials sell services?   # ____ and # ____

2. Which two commercials sell products?   # ____ and # ____

3. #1 and #2 are commercials but #3 and #4 are *infomercials*. How are commercials and infomercials similar? How are they different? Write keyword answers below.

	Similar points	**Differences**
Commercials		
Infomercials		

4. What infomercials would you like to see on TV?

_____

_____
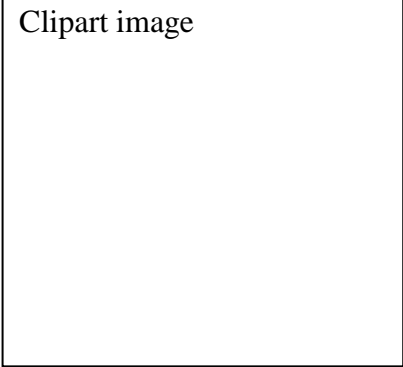
Appendix 3: The project briefs used in the study

Writing: Project 1 – Live News!

Write an original news story for an 8-9 minute news broadcast. Each team member will play a part in the news story. Your story must have:

Clipart image

- a reporter in the studio **and**,

- a reporter on site and *one or two from below*:

    o   a victim on site,

    o   an eye witness on site,

    o   an expert in the studio.

Use: Open questions: What, Why, How often, How long, Where, Which, When, Who

Closed (Yes/no) questions: Can you….?   Does she….?   Will they….?

Each team member must help to write the news story ***and*** perform in it. The news story will be video-recorded to make a DVD for the students at the end of the project.

Things to do

1.   Make project teams of 3-4 students.

2.   Discuss and decide the news story you want to write about.

3.   Decide each team member's role in the news story.

4.   Research information to include in the story.

5.   Write the script.

6.   Find and colour print the pictures you need for your news story.

7.   Check the script with Paul.

8.   Rehearse (practice) your news broadcast.

9.   Record your news story on campus.

10. Send the video file to Paul for editing.

Deadline: We will watch the new stories on May 26th (Thursday)

Assessment: This project is 40% of your course score, so do your best to use English.

Notes:

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Notes:

Presentation Project 1 – A PowerPoint presentation

PowerPoint software is often used to make presentations. It has many functions but is easy to learn. In this project you will learn how to use the software to make a basic PowerPoint presentation on a topic of your team's choice.

Clipart image

Things to do

1. Make three groups of three students each.

2. Discuss and choose a presentation topic that will be *relevant*, *useful* and *interesting* to the other students in the class.

3. Prepare a PowerPoint presentation in English about that topic. All team members must participate *equally* in planning, preparing and presenting the presentation. Each team member must present for about three minutes on the same presentation topic. So, the team presentation will be nine minutes long. Your presentation **_must_**:

   a) introduce your team members,

   b) clearly introduce the topic of your presentation,

   c) explain why the topic is relevant and useful to the audience,

   d) give relevant and useful information,

   e) end with a clear conclusion and

   f) have a Question and Answer session at the end, during which each team member should answer at least one question.

You will have time during each lesson to prepare and practice your team presentation but you may need to research information and prepare the slides in your own time.

Deadline: Give your team presentation in English on June 8th.

Assessment: Your presentation will be graded on the following points:
- Comprehensibility: Can the audience understand the presentation (40%)
- Relevance of the topic to the audience (20%)
- Usefulness of the topic to the audience (20%)
- Interest of the topic to the audience (10%)
- Use of your voice and body language (10%)

Extra information

1. On presentation day each team member's presentation order will be chosen randomly, so every team member must know their <u>whole</u> presentation.

2. Your course score depends upon your attendance, participation, planning, preparation and presentation for this project. All members of a team will receive the same score for the presentation, so work well as a team.

Notes

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Oral English project 1: Project 1 – Infomercials: Tell me more!

Infomercials are a very popular way of giving information to sell a product or service. People like to know about new services or products and infomercial can be fun to watch.

In two project teams of three students, write and video-record a one-minute long infomercial to tell people about _**one**_ of the following:

- fashion tips or
- health issues

In your infomercial, use the English from units 4-6 in the textbook:

- Simple present: e.g. do/does, wear/wears, eat/eats, run/runs
- 'Wh' questions: e.g. What, Why, How often, Where, Which, When, Who
- Adjectives: e.g. exciting, interesting, fashionable, healthy, inexpensive
- Grammar for giving advice, for example:
    - Enjoy relaxing music.
    - Have a hobby.
    - Coordinate your clothes.
    - Relax, meet people and make friends.
    - Don't stay up late.

Clipart image	Clipart image

Each team member must help to write the infomercial _**and**_ perform in it. It will be video-recorded to make a DVD for the students to keep at the end of the course.

Things to do:

1. Make a team of three students.

2. Discuss and decide your infomercial's theme: leisure activities, fashion or health?

3. Discuss and decide your TV shopping channel's name.

4. Discuss and decide the product or service you want to advertise.

5. Discuss and decide the infomercial's contents.

6. Discuss and decide the infomercial's title.

7. Discuss and decide each team member's role in the infomercial.

8. Write your infomercial.

9.   Discuss, decide and prepare any props (things) you will need for your commercial.

10.   Check the English with Paul.

11.   Choose the infomercial's background music.

12.   Video record your infomercial and give the files to Paul.

13.   Collect and enjoy your DVD with family and friends.

Remember:

1. Use English as much as you can.

2. Support other team members to learn English.

3. Do your fair share of the project.

4. Each student has skills. Use yours to make the project better.

Deadline: May 26th (Thursday)

Assessment: This project is 40% of your course score, so do your best. Use English in as much as you can. Learn new English. Practice speaking and listening.

Notes:

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Appendix 4: Questions/discussion points for pre-/post-project interviews

Pre-project interviews

1. Previous EFL experiences at junior and senior high school

    ① What did you study in your school English classes?

    ② How did your teacher teach English in class?

    ③ Did you have a native-English speaking ALT in your class sometimes?

    ④ What did you study and do with the ALT?

    ⑤ How often did you have lessons with an ALT?

    ⑥ Did you have any problems studying English at school?

    ⑦ Did you have any good experiences or memories studying English?

    ⑧ Did you do study English with projects? (Explain 'projects' if necessary.)

    ⑨ If yes, please tell me about the project.

    ⑩ Did you use English or Japanese to make the projects?

2. Explore their preferences for individual, pair and group work.

3. Explore their reactions to the idea of an 'English only' rule.

    ① What are the good points and problems?

    ② When would you use Japanese in class?

Post-project interviews

1. What are their general views on PBLL, its good points and problems?

2. Did doing the project help them to improve their English?

3. Any ideas for improving projects or implementation?

    ① Was the 'Things to do list helpful'?

    ② Group sizes

    ③ Scope of project / Need for private study.

4. Evaluation of PBLL as an approach to learning English especially compared to their prior school EFL learning experiences. Reasons?

5. How much L1/L2 did they use? How can we increase L2 use?

6. The planning graphic and project diary activities from the Project Framework:

    ① function,

    ② administration and materials' design

Appendix 5: Field observation notes (FON) form

Date	Setting	Group	Observation

Appendix 6: Informed consent form (English and Japanese versions)

An evaluation of Project-Based Language Learning in
Japanese university and college English courses

Dear student,

      I am conducting doctoral research into using projects in English courses because I think it is a very useful way for students to learn. We will be doing two projects during this course and I need your help with my research as I need to collect data from students. If you agree to participate in my research, I will ask you to do the following:

- Complete anonymous surveys in Japanese at the beginning, middle and end of the semester.
- Possibly be interviewed in Japanese/English at the beginning and end of the semester.
- Complete a feedback sheet in Japanese during each lesson. These are designed to be very quick and easy to do.
- Complete a project plan.
- Complete a project diary, a short weekly summary of your project work.

      When I write my thesis I will _not_ use your name, student number or any other private, confidential data about you. I will include your data but will not link these with your name, so answers and opinions cannot be linked to any individual. For the surveys, each student will have a unique respondent number. I will see the numbers but will not know who wrote the survey. When I refer to your data I will use either a false name or your respondent number, but not your real name. This is important because I want your **_honest_** answers and opinions, whatever they are. This is important so that I can collect accurate data about Project–Based Learning.

      I want to emphasise that you are free to participate in this research or not and your decision will not affect your course grade. Neither will any of the data you give.

      Your participation in this study helps me to collect data for my doctoral research. I think it also helps you to improve your English, your knowledge of the course subject and your knowledge of research methodologies, so I think it will be an interesting and educational experience for you. I will explain my methodology if you are interested and of course you can ask any questions about the research at any time during the course. You can also withdraw from the research at any time.

      If you agree to participate in the research, please write your name in English and today's date in the spaces below.

I, [_____your name here_____] have read the above explanation about Mr. Moritoshi's doctoral research and agree to participate.

Today's date: _____

日本の大学の英語コースにおける

プロジェクトベーストラーニング(PBLL)の評価

学生の皆さん

　私は、この英語コースの中で、あるプロジェクトを実施し、自身の博士号研究を致したいと考えております。これは学生の皆さんにとって非常に有益な学習方法でもあります。このコースでは二つのプロジェクトを実施致しますが、それにあたり皆さんのご協力を得てデータを収集させていただきたいと思います。私の研究への参加にご賛同いただけましたら、以下のことをコース期間中にしていただくことになります。

- 日本語による匿名の調査を、学期の始め、中間、終りに記入いただきます。
- 日本語と英語によるインタビューを、学期の始め、終りに受けていただくこともあります。
- 日本語による学生からの講義後のフィードバック（非常に簡易なもの）を記入いただきます。
- プロジェクト計画を作成していただきます。
- プロジェクト日誌、週単位での自身のプロジェクトの短い要旨を作成していただきます。

　私が論文を書くにあたり、決して皆さんの氏名、学生番号又は個人の機密情報を使用することはありません。皆さんのデータは使用しますが氏名との関連付けはしませんので、皆さんの回答や意見は個人のものとして出されません。調査の目的として、学生の皆さんはそれぞれ無作為の番号を使用します。私はその番号は見ますが、どなたが書いたものかはわからないようになっています。皆さんのデータを使用する際には、偽名又はその番号を用いますので本名の記入は一切必要ありません。これは、皆さんの**実直**な回答と意見を内容問わず忌憚無く記入していただく上で重要な点だと考えています。そして、PBL についての正確なデータを収集したいと思います。

　ここで皆さんにご承知いただきたいのは、研究への参加はあくまで自由であり、参加如何及び回答の内容は、当然のことながら皆さんの成績には一切反映されません。

　皆さんに参加いただくことは私個人の博士号研究の資料として非常に重要となります。同時に、皆さんの英語学習の一助にもなり、受講コースのみならず、将来必要となる研究の方法を知る良い機会でもあると思いますので、皆さんにとっても興味深く、有意義な経験となるでしょう。興味があれば、喜んで私の研究法を説明いたしますし、ご質問があればいつでも尋ねてください。

　コース途中でのプロジェクト継続が不都合になった場合、辞退していただいても結構です。

　研究への参加に同意いただけましたら、英語で氏名と日付をご記入ください。

私、（　　　　　　　　　　　　　　　　　　　）は、森年氏の博士号研究についての上記説明を読み、参加することに同意いたします。

＿＿＿＿＿＿ 年＿＿ 月＿＿ 日

Appendix 7: Pre-project survey (all groups) (English and Japanese versions)

Date: _____   Setting: _____   Group: _____   Your respondent number: _____

This survey asks about your knowledge of English, your knowledge of this course's content, about various skills and your perceptions of English as a foreign language. Completing this survey helps me to collect research data but it also assists you with your English learning by helping you to think about your strengths and weaknesses, so please read the questions carefully and think about your answer. An honest, considered answer is best, so take your time. If there is anything you don't understand in the survey, please ask Paul in Japanese or English. Please answer all the questions.

Part 1 – About your knowledge and skills: For questions 1-16 please evaluate your level of knowledge or skill. Tick (☑) only one option for each question to show your answer and give more information. A keyword or short explanation is enough.

How would you rate your…	Your answer					More information (in Japanese is OK)
	Very good	Quite good	OK	Quite poor	Very poor	
1 … level of English grammar knowledge?						
2 … level of English vocabulary knowledge?						
3 … level of English spelling knowledge?						
4 … level of English pronunciation knowledge?						
5 … English speaking ability?						
6 … English listening ability?						
7 … English reading ability?						
8 … English writing ability?						
9 … ability to think critically[11] about something?						
10 … ability to solve problems?						

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[11] **Think critically** – To think about information to decide if it is true or false, or to think about an answer to decide if it is a good one or a bad one.

	How would you rate your…	Very good	Quite good	OK	Quite poor	Very poor	More information (in Japanese is OK)
11	… ability to make decisions?						
12	… ability to discuss[12] a topic to understand another person's ideas?						
13	… ability to negotiate[13] with someone to resolve the disagreement?						
14	… ability to collaborate[14] with others to produce a piece of work?						
15	… ability to study English by yourself?						

Before answering question 16 please check the 'Lesson schedule' section of the syllabus.

		All	Most	About half	Only a little	None	More information (in Japanese is OK)
16	How much of the content do you already know?						

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[12] **Discuss** – To talk about a topic to learn more about it.

[13] **Negotiate** – To talk about a topic when two or more people disagree so that you can come to a decision.

[14] **Collaborate** – To work together with other people on a project to produce something.

Part 2 – About your perceptions of English: For questions 17–27, please evaluate your perceptions of English. Tick (☑) only one option for each question to show your answer and give more information. A keyword or short explanation is enough.

		Answer				More information (in Japanese is OK)
		Very	**Quite**	**Only a little**	**Not at all**	
17	How enjoyable is studying English?					
18	How interesting is studying English?					
19	How difficult is English for you?					
20	How much do you want to improve your English?					
21	When you have to speak English to a foreigner, how anxious are you?					
22	How relevant do you think English is to you in your college or university life?					
23	How relevant do you think English is to you in your future work life?					
24	How motivated are you to study English?					
25	For the time you have spent studying English, how satisfied are you with your level of progress?					
26	If you met a foreigner in Japan who could not speak very good Japanese, how willing would you be to use English?					
27	If a foreigner in Japan spoke to you in English but you didn't understand, how willing would you be to check their meaning in English?					

Part 3 – Miscellaneous - Choose only the <u>one</u> option that best describes your answer.

28. If you tried to say something in English to a foreigner in Japan but they didn't understand you, what would you do?

a. ❑   I would try again in English in another way.
b. ❑   I would repeat the same thing in Japanese.
c. ❑   I would use a dictionary.
d. ❑   I would give up.
e. ❑   I would do something else. Please specify: I would _____

29. During English lessons do you prefer to study English…

a. ❑   ...alone
b. ❑   ...in a pair
c. ❑   ...in a small group of three or four

30. During an English lesson how much English vs. Japanese would you like *the teacher* to use?

a. ❑   I would like the teacher to use only English all the time.
b. ❑   I would like the teacher to use mostly English and a little Japanese sometimes.
c. ❑   I would like the teacher to use English about half the time and Japanese half the time.
d. ❑   I would like the teacher to use mostly Japanese and a little English sometimes.
e. ❑   I would like the teacher to use only Japanese all the time.

31. During an English lesson how much English vs. Japanese would *you* like to use?

a. ❑   I would like to use only English all the time.
b. ❑   I would like to use mostly English and a little Japanese sometimes.
c. ❑   I would like to use English about half the time and Japanese half the time.
d. ❑   I would like to use mostly Japanese and a little English sometimes.
e. ❑   I would like to use only Japanese all the time.

32. To improve your English knowledge and/or skills how necessary is it to have chances to speak and/or write in English?

a. ❑   It is essential
b. ❑   It is important but not essential.
c. ❑   It is not necessary.

33. What do you want to study and practice during this course? (Write as many answers as you want.)

_____

34. What should the teacher do during this course? (Write as many answers as you want.)

_____

35. What should the students' do during this course? (Write as many answers as you want.)

_____

Part 4 – Personal information

36. Your age: _____

37. Your gender is: a. ❑ Male or b. ❑ Female

38. About your TOEIC score

a. ❑ I have a TOEIC score but have forgotten it.
b. ❑ I have a TOEIC score but don't want to tell you what it is.
c. ❑ My TOEIC score is _____.
d. ❑ I don't have a TOEIC score.

39a. Have you done projects in English courses before?

Yes ❑ or No ❑

39b. If Yes, what project(s) did you do?
_____
_____

39c. If Yes, which language did you use to prepare the project?

Your mother tongue ❑ or English ❑

39d. If Yes, how was the project? Write about the problems or good experiences.
_____
_____

Thank you for your time in completing this questionnaire.

日付:_____　　　　セッティング:_____　　　　グループ: _____　　　　あなたの回答用番号:_____

この調査は、あなた自身の英語の知識及びこのコース内容の知識、そして英語のスキルと外国語としての英語に対するあなたの考え方についてお聞きするものです。この調査により、私の研究に必要なデータを収集させていただけると同時に、皆さんも自身の英語力の強いところと弱いところについて客観的に考えることにより、英語学習に役立てることにもなると思いますので、是非以下の質問を注意深く読み、回答をお願いします。実直且つ思慮深い回答が望ましいですので、急がずにご回答ください。調査に関しご不明な点がありましたら、Paul に日本語でも英語でも構いませんので質問してください。全ての質問に回答いただけますようよろしくお願い致します。

Part 1 – あなたの知識とスキルについて：1-16 の質問に関し、あなた自身の知識とスキルのレベル評価をしてください。 回答は１つのみ（☑）チェックをし、それについて簡単な補足説明をしてください。説明はキーワード又は短い説明で十分です。

あなたは以下についてどう評価しますか。	回答					補足説明 (日本語で OK)
	非常に良い	かなり良い	ほどほど	あまり良くない	非常に悪い	
1　自分の文法知識						
2　自分の語彙力						
3　自分のスペルの正確さ						
4　自分の発音知識						
5　自分のスピーキング力						
6　自分のリスニング力						
7　自分のリーディング力						
8　自分のライティング力						
9　何かについて批判的に考える力[15]						
10　問題解決力						

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[15] **批判的に考える** – ある情報に関しそれが本当かそうでないかを考えて決め、又ある答え良いか悪いかを考え決めること

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あなたは以下についてどう評価しますか。	非常に良い	かなり良い	ほどほど	あまり良くない	非常に悪い	補足説明 (日本語で OK)
11 決断する力						
12 他人の意見を理解するためにあるトピックについて話し合う力[16]						
13 意見が不一致な場合に問題を解決するために交渉する力[17]						
14 ひとつの作業において、人と協力する力[18]						
15 一人で英語を勉強する力						

次の **16** に回答する前に、シラバスのレッスンスケジュール **'Lesson schedule'** を確認してください。

	全て	ほとんど	約半分	少しだけ	全く	補足説明 (日本語で OK)
16 すでに内容をどの程度知っていますか。						

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[16] **話し合う** – あるトピックについて話し、更に学ぶこと
[17] **交渉する** – あるトピックについて 2 名ないし 3 名以上が合意しない場合に、解決できるよう話し合うこと
[18] **協力する** – プロジェクトに関し何かを作り出すために他の人と共に作業をすること

Part 2 – あなたの英語に対する考え方について：17-27 について，あなた自身の英語に対する考え方を評価してください。回答は１つのみ（☑）チェックをし、それについて簡単な補足説明をしてください。説明はキーワード又は短い説明で十分です。

		回答				補足説明（日本語で OK）
		非常に	かなり	少し	全く	
17	英語学習はどのくらい楽しいですか。					
18	英語学習はどの程度興味深いですか。					
19	英語はどのくらい難しいですか。					
20	どのくらい英語を上達させたいですか。					
21	外国人に英語で話すとき、どのくらい不安ですか。					
22	あなたにとって自分の大学生活と英語はどのくらい関連性がありますか。					
23	あなたにとって自分の将来の仕事と英語はどのくらい関連性があると思いますか。					
24	あなたには英語学習のモチベーションがどのくらいありますか。					
25	今まで英語学習をしてきた中で、英語力の上達に満足していますか。					
26	もしあなたが日本であまり日本語が流暢でない外国人に出会ったら、あなたはどのくらい積極的に英語を使いますか。					
27	もし日本で外国人があなたに英語で話しかけて来た時理解できなかったら、その内容を英語で確認しなおそうとしますか。					

Part 3 – その他 – あなたの意見に最も合うもの _1 つ_ を選んでください。

28. もし日本であなたが外国人に何かを英語で伝えようとして、相手が理解できなかった場合、どうしますか。

a. ❑　別の言い方で再度英語で言う
b. ❑　同じことを日本語で繰り返す
c. ❑　辞書を使う
d. ❑　あきらめる
e. ❑　上記以外のことをする。【説明してください】＿＿＿＿＿＿＿＿

29. 英語授業の間、あなたはどういった環境で学習したいですか。

a. ❑　一人で
b. ❑　二人で
c. ❑　三人〜四人のグループで

30. 英語授業の間、あなたは _教師_ に英語と日本語をどの程度の割合で使うことを希望しますか。

a. ❑　常に英語のみ使って欲しい
b. ❑　ほとんど英語で、少しだけ日本語を使って欲しい
c. ❑　半々で使って欲しい
d. ❑　ほとんど日本語で、少しだけ英語を使って欲しい
e. ❑　常に日本語を使って欲しい

31. 英語授業の間、あなた自身は英語と日本語をどの程度の割合で使いたいですか。

a. ❑　常に英語を使いたい
b. ❑　ほとんど英語を使い日本語は少しだけにしたい
c. ❑　半々の割合で使いたい
d. ❑　ほとんど日本語を使い少しだけ英語を使いたい
e. ❑　常に日本語を使いたい

32. 英語の知識やスキルを向上するため、英語を話したり書いたりする機会の必要性をどのように感じていますか。

a. ❑　不可欠
b. ❑　重要だが、必要不可欠ではない
c. ❑　不要

33. このコースで、どのようなことを勉強したり実践したりしたいですか。
（回答はいくつでも構いません。）

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

34. このコースで教師に何を期待しますか。
（回答はいくつでも構いません。）

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

35. このコースを通じ、学生は何をすべきだと思いますか。
（回答はいくつでも構いません。）

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Part 4 –個人情報

36. あなたの年齢：____

37. あなたの性別： a.❑　男性　または　　b.　❑　女性

38. あなたの TOEIC スコアについて：

a. ❑　ありますけど忘れました。
b. ❑　ありますけど教えたくない。
c. ❑　私の TOEIC スコアは_____です.
d. ❑　TOEIC スコアありません.

39a. 前にプロジェクトをしたことがありますか。

　　　　はい　❑　　または　いいえ　❑

39b. Yes の場合,そのプロジェクトは何でしたか。

_____

39c. Yes の場合, そのプロジェクトを準備していましたの間にどの言語を使用
　　　ですか。

　　　　あなたの母国語　❑　　または　　英語　❑

39d. Yes の場合, そのプロジェクトはどうでしたか。(問題またはいい経験につ
　　　いて書いてください)。

_____

このアンケートを完了していただきありがとうございます。

Appendix 8: Post-project survey (OE group) (English and Japanese versions)

Date:_____ **Setting**:____ **Group**: _____ **Your respondent number**:_____

This survey asks about your knowledge of English, your knowledge of this course's content, about various skills and your perceptions of English as a foreign language. Completing this survey helps me to collect research data but it also assists you with your English learning by helping you to think about your strengths and weaknesses, so please read the questions carefully and think about your answer. An honest, considered answer is best, so take your time. If there is anything you don't understand in the survey, please ask Paul in Japanese or English. Please answer all the questions.

Part 1 - About your knowledge and skills: For questions 1-16 please evaluate your level of knowledge or skill. Tick (☑) only one option for each question to show your answer and give more information. A keyword or short explanation is enough.

	How would you rate your…	Your answer					More information (in Japanese is OK)
		Very good	Quite good	OK	Quite poor	Very poor	
1	… level of English grammar knowledge?						
2	… level of English vocabulary knowledge?						
3	… level of English spelling knowledge?						
4	… level of English pronunciation knowledge?						
5	… English speaking ability?						
6	… English listening ability?						
7	… English reading ability?						
8	… English writing ability?						
9	… ability to think critically[19] about something?						
10	… ability to solve problems?						

---

[19] **Think critically** – To think about information to decide if it is true or false, or to think about an answer to decide if it is a good one or a bad one.

	How would you rate your…	Very good	Quite good	OK	Quite poor	Very poor	More information (in Japanese is OK)
11	… ability to make decisions?						
12	… ability to discuss[20] a topic to understand another person's ideas?						
13	… ability to negotiate[21] with someone to resolve the disagreement?						
14	… ability to collaborate[22] with others to produce a piece of work?						
15	… ability to study English by yourself?						

16	By doing this project, how well can you now …	Very well	Quite well	Not very well	Not at all	More information (in Japanese is OK)
a	…ask questions in English?					
b	…explain your meaning in English?					
c	…check another person's meaning in English?					
d	…talk about fashion *or* health in English?					
e	…give advice in English?					
f	…give your opinion about another person's idea in English?					

[20] **Discuss** – To talk about a topic to learn more about it.
[21] **Negotiate** – To talk about a topic when two or more people disagree so that you can come to a decision.
[22] **Collaborate** – To work together with other people on a project to produce something.

Part 2 – About your perceptions of English and projects: For questions 17–27, please evaluate your perceptions of English. Tick (☑) only one option for each question to show your answer and give more information. A keyword or short explanation is enough.

		Answer				More information (in Japanese is OK)
		Very	Quite	Only a little	Not at all	
17	How enjoyable is studying English?					
18	How interesting is studying English?					
19	How difficult is English for you?					
20	How much do you want to improve your English?					
21	When you have to speak English to a foreigner, how anxious are you?					
22	How relevant do you think English is to you in your college or university life?					
23	How relevant do you think English is to you in your future work life?					
24	How motivated are you to study English?					
25	For the time you have spent studying English, how satisfied are you with your level of progress?					
26	If you met a foreigner in Japan who could not speak very good Japanese, how willing would you be to use English?					
27	If a foreigner in Japan spoke to you in English but you didn't understand, how willing would you be to check their meaning in English?					

Part 3 – Miscellaneous - Choose only the <u>one</u> option that best describes your answer.

28. If you tried to say something in English to a foreigner in Japan but they didn't understand you, what would you do?

a. ❑   I would try again in English in another way.
b. ❑   I would repeat the same thing in Japanese.
c. ❑   I would use a dictionary.
d. ❑   I would give up.
e. ❑   I would do something else. Please specify: I would _____

29. During English lessons, do you prefer to study English…

a. ❑   ...alone
b. ❑   ...in a pair
c. ❑   ...in a small group of three or four

30. During an English lesson, how much English vs. Japanese would you like *the teacher* to use?

a. ❑   I would like the teacher to use only English all the time.
b. ❑   I would like the teacher to use mostly English and a little Japanese sometimes.
c. ❑   I would like the teacher to use English about half the time and Japanese half the time.
d. ❑   I would like the teacher to use mostly Japanese and a little English sometimes.
e. ❑   I would like the teacher to use only Japanese all the time.

31. During an English lesson how much English vs. Japanese would *you* like to use?

a. ❑   I would like to use only English all the time.
b. ❑   I would like to use mostly English and a little Japanese sometimes.
c. ❑   I would like to use English about half the time and Japanese half the time.
d. ❑   I would like to use mostly Japanese and a little English sometimes.
e. ❑   I would like to use only Japanese all the time.

32. To improve your English knowledge and/or skills how necessary is it to have chances to speak and/or write in English?

a. ❑   It is essential
b. ❑   It is important but not essential.
c. ❑   It is not necessary.

Part 4 – About learning English through project work

33. During the project the teacher took many roles, for example instructor, assistant, proof-reader, organiser, advisor. How do you feel about an English teacher having many different roles in an English lesson?
_____

_____

34. During the project you took many roles, for example planner, writer, team member, researcher and presenter. How do you feel about having many different roles in an English lesson?
_____

_____

35. Do you think studying and practicing English through projects has improved your knowledge of English grammar, vocabulary, spelling or pronunciation?

    a. ❑ Yes   or   b. ❑ No

because_____
_____

If yes, what in particular do you think you have learned?
_____

36. Do you think studying and practicing English through projects has improved your English reading, writing, speaking or listening skills?

    a. ❑ Yes   or   b. ❑ No

because_____
_____

If yes, which skills in particular do you think you have improved?
_____
_____

37. Do you think studying and practicing oral English through projects has improved your <u>knowledge</u> of oral English? (For example *knowing how to* ask questions, explain your meaning, check another person's meaning, talk about health *or* fashion, give advice, give your opinion about another person's idea, etc.)

    a. ❑ Yes   or   b. ❑ No

because_____
_____

If yes, what in particular do you think you have learned?
_____
_____

38. Do you think studying and practicing oral English through projects has improved your oral English <u>skills</u>? (For example *being able to* ask questions, explain your meaning, check another person's meaning, talk about health *or* fashion, give advice, give your opinion about another person's idea, etc.)

    a. ❑ Yes   or   b. ❑ No

because_____
_____

If yes, which skills in particular do you think you have improved?
_____
_____

39. Do you think language (grammar, vocabulary, spelling, pronunciation etc.), content (oral English: ask questions, explain your meaning, check another person's meaning, talk about health *or* fashion, give advice, give your opinion about another person's idea) and skills (speaking, listening, reading, writing and presentation) should be taught:

    a. ❑ separately   or   b. ❑ together

because_____
_____

40. How did you feel about having to do some of the project in your own time?

_____
_____

41. Do you feel your team members did their fair share of the work?

     a. ❑ Yes   or   b. ❑ No

If No, how do you feel about that? (Please don't write students' names.)
_____
_____

42. What did you like about doing the project? (More than one answer is OK.)
_____
_____

43. What did you dislike about doing the project? (More than one answer is OK.)
_____
_____

44. Which method of learning and practicing English do you prefer?

    a. ❑ How you studied English <u>at junior and senior high school</u>
    b. ❑ Studying and practicing English through project work.
    c. ❑ No preference

because_____
_____

45. Which method of learning and practicing English do you prefer?

    a. ❑ How you are studying English <u>at university</u>
    b. ❑ Studying and practicing English through project work.
    c. ❑ No preference

because_____
_____

46. How do you feel about working on a project for several lessons?
_____
_____

47. Are there advantages to learning and practicing oral English with projects? (More than one answer is OK.)
_____
_____

48. Are there disadvantages to learning and practicing oral English with projects? (More than one answer is OK.)
_____
_____

49. Did you learn from other students in the group?

    a. ❑ Yes   or   b. ❑ No

50. Overall, do you think project work is a good way to learn and practice oral English?

    a. ❑ Yes   or   b. ❑ No

because_____
_____

For each part of question 52, check only one answer and give more information if you can.

		Answer				because… (in Japanese is OK)
		Strongly agree	Agree a little	Disagree a little	Strongly disagree	
51	Lesson time should be used to study and practice…					
a	…English grammar.					
b	…English vocabulary (with spelling).					
c	…English pronunciation.					
d	…English listening.					
e	…English speaking.					
f	…English reading.					
g	…English writing.					
h	…how to plan, prepare and practice an infomercial project.					

52. Complete the following sentence: Project work is _____ because _____.

53. Any other comments about the project or Project-Based Language Instruction as a way to study and practice oral English:

_____

Thank you for your cooperation in completing this questionnaire.

日付:_____　　　　セッティング:_____　　　　グループ: _____　　　　あなたの回答用番号:_____

この調査は、あなた自身の英語の知識及びこのコース内容の知識、そして英語のスキルと外国語としての英語に対するあなたの考え方についてお聞きするものです。この調査により、私の研究に必要なデータを収集させていただけると同時に、皆さんも自身の英語力の強いところと弱いところについて客観的に考えることにより、英語学習に役立てることにもなると思いますので、是非以下の質問を注意深く読み、回答をお願いします。実直且つ思慮深い回答が望ましいですので、急がずにご回答ください。調査に関しご不明な点がありましたら、**Paul** に日本語でも英語でも構いませんので質問してください。全ての質問に回答いただけますようよろしくお願い致します。

Part 1 – あなたの知識とスキルについて: 1-16 の質問に関し、あなた自身の知識とスキルのレベル評価をしてください。　回答は１つのみ（☑）チェックをし、それについて簡単な補足説明をしてください。説明はキーワード又は短い説明で十分です。

	あなたは以下についてどう評価しますか。	回答					補足説明 (日本語で *OK*)
		非常に良い	かなり良い	ほどほど	あまり良くない	非常に悪い	
1	自分の文法知識						
2	自分の語彙力						
3	自分のスペルの正確さ						
4	自分の発音知識						
5	自分のスピーキング力						
6	自分のリスニング力						
7	自分のリーディング力						
8	自分のライティング力						
9	何かについて批判的に考える力[23]						
10	問題解決力						

---

[23] **批判的に考える** – ある情報に関しそれが本当かそうでないかを考えて決め、又ある答え良いか悪いかを考え決めること

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	あなたは以下についてどう評価しますか。	非常に良い	かなり良い	ほどほど	あまり良くない	非常に悪い	補足説明 (日本語で OK)
11	決断する力						
12	他人の意見を理解するためにあるトピックについて話し合う力[24]						
13	意見が不一致な場合に問題を解決するために交渉する力[25]						
14	ひとつの作業において、人と協力する力[26]						
15	一人で英語を勉強する力						

16	このプロジェクトをすることで，以下のことがどのくらい出来るようになりましたか。補足説明（日本語で OK）	非常に	かなり	あまり	全く	補足説明 (日本語で OK)
a	…英語で質問をすること					
b	…英語であなたの意味を説明すること					
c	…英語で他の人のことを意味を確認すること					
d	…英語で健康またはファッションについて話をすること					
e	…英語でアドバイスをすること					
f	…英語でアイデアについてのご意見を与えること					

[24] **話し合う** - あるトピックについて話し、更に学ぶこと
[25] **交渉する** - あるトピックについて 2 名ないし 3 名以上が合意しない場合に、解決できるよう話し合うこと
[26] **協力する** - プロジェクトに関し何かを作り出すために他の人と共に作業をすること

Part 2－ あなたの英語とプロジェクトに対する考え方について：17-27 について，あなた自身の英語に対する考え方を評価してください。回答は１つのみ（☑）チェックをし、それについて簡単な補足説明をしてください。説明はキーワード又は短い説明で十分です。

		回答				補足説明 （日本語で OK）
		非常に	かなり	少し	全く	
17	英語学習はどのくらい楽しいですか。					
18	英語学習はどの程度興味深いですか。					
19	英語はどのくらい難しいですか。					
20	どのくらい英語を上達させたいですか。					
21	外国人に英語で話すとき、どのくらい不安ですか。					
22	あなたにとって自分の大学生活と英語はどのくらい関連性がありますか。					
23	あなたにとって自分の将来の仕事と英語はどのくらい関連性があると思いますか。					
24	あなたには英語学習のモチベーションがどのくらいありますか。					
25	今まで英語学習をしてきた中で、英語力の上達に満足していますか。					
26	もしあなたが日本であまり日本語が流暢でない外国人に出会ったら、あなたはどのくらい積極的に英語を使いますか。					
27	もし日本で外国人があなたに英語で話しかけて来た時理解できなかったら、その内容を英語で確認しなおそうとしますか。					

Part 3 – その他 - あなたの意見に最も合うもの_1 つ_を選んでください。

28. もし日本であなたが外国人に何かを英語で伝えようとして、相手が理解できなかった場合、どうしますか。

a. ❑　別の言い方で再度英語で言う
b. ❑　同じことを日本語で繰り返す
c. ❑　辞書を使う
d. ❑　あきらめる
e. ❑　上記以外のことをする。【説明してください】＿＿＿＿＿＿＿＿

29. 英語授業の間、あなたはどういった環境で学習したいですか。

a. ❑　一人で
b. ❑　二人で
c. ❑　三人〜四人のグループで

30. 英語授業の間、あなたは_教師_に英語と日本語をどの程度の割合で使うことを希望しますか。

a. ❑　常に英語のみ使って欲しい
b. ❑　ほとんど英語で、少しだけ日本語を使って欲しい
c. ❑　半々で使って欲しい
d. ❑　ほとんど日本語で、少しだけ英語を使って欲しい
e. ❑　常に日本語を使って欲しい

31. 英語授業の間、あなた自身は英語と日本語をどの程度の割合で使いたいですか。

a. ❑　常に英語を使いたい
b. ❑　ほとんど英語を使い日本語は少しだけにしたい
c. ❑　半々の割合で使いたい
d. ❑　ほとんど日本語を使い少しだけ英語を使いたい
e. ❑　常に日本語を使いたい

32. 英語の知識やスキルを向上するため、英語を話したり書いたりする機会の必要性をどのように感じていますか。

a. ❑　不可欠
b. ❑　重要だが、必要不可欠ではない
c. ❑　不要

Part 4 – プロジェクトで英語を学ぶことについて

33. プロジェクトの作成期間中，教師はインストラクター，アシスタント，校正役，主催者，助言者など，様々な役割をしていました。英語教師が英語授業において多くの異なった役割を担うことについて，あなたはどう思いますか。
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

34. プロジェクトの作成期間中，あなた方は企画，原稿作成，チームの一員であること，調査，プレゼンター，など様々な役割をしていました。英語授業において多くの異なった役割を持つことについて，あなたはどう思いますか。
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

35. プロジェクトを通じた英語の学習及び練習により、あなたの英語文法、語彙、スペル又は発音が上達したと思いますか。

    a. ❏　はい　　　or　　　b. ❏　いいえ

理由 ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Yes の場合、特にどんなことを学んだと思いますか。

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

36. プロジェクトを通じた英語の学習及び練習により、あなたの英語のリーディング力、ライティング力、スピーキング力又はリスニング力が上達したと思いますか。

    a. ❏　はい　　　or　　　b. ❏　いいえ

理由 ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Yes の場合，特にどのスキルが上達したと思いますか。

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

37. プロジェクトを通じた学習及びオーラルイングリッシュの練習により，あなたのオーラルイングリッシュに関する知識は向上した(例えば，質問方法、あなたの意味を説明方法、他の人の意味を確認方法、健康またはファッションについて話し方法、助言方法、アイデアについてのご意見を与える方法を知っているなど)と思いますか。

    a. ❏　はい　　　or　　　b. ❏　いいえ

理由 ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Yes の場合,特にどんな点を学ぶことができたと思いますか。
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

38. プロジェクトを通じた学習及びオーラルイングリッシュの練習により，あなたのオーラルイングリッシュスキルは向上した(例えば，質問をする力、あなたの意味を説明する力、他の人の意味を確認する力、健康またはファッションについて話す力、アドバイスをする力、アイデアについてのご意見を与える力など)と思いますか。

    a. ❏　はい　　　or　　　b. ❏　いいえ

理由 ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Yes の場合,特にどの点が向上したと思いますか。

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

39. 言語、（文法、語彙、スペル、発音など）、コンテンツ（質問をする、あなたの意味を説明する、他の人のことを意味を確認する、健康またはファッションについて話をする、アドバイスをする、アイデアについてのご意見を与える）、スキル（スピーキング、リスニング、リーディング、ライティング）は、どのように指導されるべきだと思いますか。

    a. ❏　別々に　　　or　　　b. ❏　いっしょに

理由 ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

40. 自身の時間を割いてプロジェクトの一部をしないといけないことについて
どのように感じましたか。

_____

_____

41.チームのメンバーは作業分担を公平にしたと思いますか。

a. ❑ Yes or b. ❑ No

No の場合，そのことについてどのように感じましたか。（学生の名前を記述しな
いでください。）

_____

42.このプロジェクトを遂行するにあたり気に入ったことは何ですか。(複数の回答OK)

_____

_____

43.プロジェクトを遂行するにあたり嫌だったことは何ですか。(複数の回答OK)

_____

_____

44. 英語の習得と練習に関し、以下の方法のどちらを好みますか。

a. ❑ 中学高校で学んだ方法
b. ❑ プロジェクトを通じて行った英語の学習と練習方法
c. ❑ 好みがありません

理由 _____

_____

45. .英語の習得と練習に関し、以下の方法のどちらを好みますか。

a. ❑ 大学で学んでいる方法
b. ❑ プロジェクトを通じて行った英語の学習と練習方法
c. ❑ 好みがありません

理由 _____

_____

46. 数回の授業をかけてプロジェクトを行うことについて，どう思いますか。

_____

_____

47. プロジェクトを通じてオーラルイングリッシュを学ぶことに利点はありますか。(複
数の回答OK)

_____

_____

48. プロジェクトを通じてオーラルイングリッシュを学ぶことに不利益な点はありますか。(複数の回答OK)

_____

_____

49. グループ内の他の学生から学ぶことはありましたか。

a ❑ はい b ❑ いいえ

50. 全体的にみて，プロジェクトを行うことはオーラルイングリッシュの学習と練習には良い方法だと思いますか。

a ❑ はい b ❑ いいえ

理由 _____

_____

		回答				理由(日本語でOK)
		とてもそう だと思う	だいたい そう思う	あまりそう 思わない	全くそう 思わない	
51	授業時間は以下のことを学び練習するために使 われるべきである					
a	英文法					
b	英語の語彙(スペリング含む)					
c	英語の発音					
d	英語リスニング					
e	英語スピーキング					
f	英語リーディング					
g	英語ライティング					
h	インフォマーシャルプロジェクトの企画, 構成, 練 習の仕方					

52. 次の文を完成してください:プロジェクトを行うことは＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿なので＿＿＿＿＿＿＿です。

53. プロジェクトまたは、オーラルイングリッシュの学習及び練習方法としてのプロジェクト主体語学指導についてのコメントをご自由にお書きください。＿＿＿＿＿＿＿＿＿＿＿＿＿
＿＿

このアンケートを完了していただきありがとうございます。

Appendix 9: SPA form: OE group (English and Japanese versions)

What did you do during your project time today? (Oral English)

Date:_____   **Setting**:____   **Group**: _____   **Your respondent number**:_____

Answer questions 1-6 during the project time as you go along. Tick (☑) your answers and give example(s).

1a. During the project time, did you learn any new English grammar from your team members *or* did you use any of the grammar you have learned during the course?

a. ❑ Yes   or   b. ❑ No

1b. If Yes, which new grammar(s) did you learn or use?:
_____

2a. During the project time, did you learn any new English vocabulary from your team members *or* did you use any of the vocabulary you have learned during the course?

a. ❑ Yes   or   b. ❑ No

2b. If Yes, which new vocabulary did you learn or use?:
_____

3a. During the project time, did you or a team member correct any of *your* English spelling mistakes?

a. ❑ Yes   or   b. ❑ No

3b. If Yes, which word(s) can you now spell correctly?:
_____

4a. During the project time, did you or a team member correct any of *your* English pronunciation mistakes?

a. ❑ Yes   or   b. ❑ No

4b. If Yes, which word(s) can you now pronounce correctly?:
_____

5a. During the project time, did you learn anything new about Oral English from your team members *or* did you apply anything you have learned during the course?

a. ❑ Yes   or   b. ❑ No

5b. If Yes, what did you learn or apply:
_____

6a. Did you use any Oral English skills during project time?

a. ❑ Yes   or   b. ❑ No

6b. If yes, what Oral English skill(s) did you use?:
_____

Answer questions 7-13 <u>at the end of the lesson</u>. For questions 7-11 choose the <u>*one*</u> option that best describes your answer and tick (☑) your answer.

7a. Did you have some chances to speak in English?

　　a. ❑　Yes　　　or　　　b. ❑　No

7b. Did you have some chances to write in English?

　　a. ❑　Yes　　　or　　　b. ❑　No

8a. Did you use English to communicate opinions, ideas, knowledge, suggestions etc?

　　a. ❑　Yes　　　or　　　b. ❑　No

8b. If yes, what information did you communicate?:

_____

9a. Did you have any problems understanding your team members' English?

　　a. ❑　Yes　　　or　　　b. ❑　No

9b. If yes, what did you do?

　　a. ❑　I always checked their meaning in Japanese.
　　b. ❑　I usually checked their meaning in Japanese but occasionally I checked in English.
　　c. ❑　I checked their meaning in Japanese about half the time and in English about half the time.
　　d. ❑　I usually checked their meaning in English but occasionally I checked in Japanese.
　　e. ❑　I always checked their meaning in English.
　　f. ❑　I never checked their meaning.

10a. During the project time, could you always explain your meaning clearly to your team members in English?

　　a. ❑　Yes　　　or　　　b. ❑　No

10b. If no, what did you do when they could not understand you?

　　a. ❑　You immediately explained your meaning in Japanese.
　　b. ❑　You tried to explain your meaning in English in another way but that was unsuccessful so then you used Japanese.
　　c. ❑　You tried to explain your meaning in English in another way and that was successful.
　　d. ❑　You gave up and didn't try to explain your meaning at all.

11. How much English vs. Japanese did you use during project time?

　　a. ❑　I spoke only in English.
　　b. ❑　I spoke mostly in English but used a little Japanese sometimes.
　　c. ❑　I spoke about half in English and half in Japanese.
　　d. ❑　I spoke mostly in Japanese but used a little English sometimes.
　　e. ❑　I spoke only in Japanese.

For questions 12-13 tick (☑) as many options that apply to you.

12. During the project time you worked:

　　a. ❑　alone
　　b. ❑　in a pair
　　c. ❑　in a group of three or more

13. During the project time you:
　　a. ❑　spoke in English
　　b. ❑　tried to understand team members' spoken English
　　c. ❑　read in English
　　d. ❑　wrote in English

今日のプロジェクトでは何をしましたか (オーラル　イングリッシュ)

日付:_____　　　　　セッティング:____　　　　　グループ: _____　　　　　あなたの回答用番号:_____

プロジェクトを進めながら **1-6** の質問に回答してください。**適当な回答に (☑) マークを記入して、例を記入してください。**

1a. ﾌﾟﾛｼﾞｪｸﾄの時間中、ﾁｰﾑﾒﾝﾊﾞｰから新しい文法を学んだり授業で学んだ文法を使ってみましたか。

    a. ❑　はい　　　または　　　b. ❑　いいえ

1b. Yes の場合, どんな文法を学んだり使ったりしましたか。:
_____

2a. ﾌﾟﾛｼﾞｪｸﾄの時間中、ﾁｰﾑﾒﾝﾊﾞｰから新しい語彙を学んだり授業で学んだ語彙を使ってみましたか。

    a. ❑　はい　　　または　　　b. ❑　いいえ

2b. Yes の場合, どんな語彙を学んだり使ったりしましたか。
_____

3a. ﾌﾟﾛｼﾞｪｸﾄの時間中、あなた自身又はチームメンバーがあなたのスペルを直しましたか。

    a. ❑　はい　　　または　　　b. ❑　いいえ

3b. Yes の場合, どの単語を正しく書けますか。

_____

4a. ﾌﾟﾛｼﾞｪｸﾄの時間中、あなた自身又はチームメンバーがあなたの発音を直しましたか。

    a. ❑　はい　　　または　　　b. ❑　いいえ

4b. Yes の場合, どの単語を正しく発音できますか。

_____

5a. ﾌﾟﾛｼﾞｪｸﾄの時間中、チームメンバーからオーラルイングリッシュについて何か新た に学んだり、授業で学んだことを応用しましたか。

    a. ❑　はい　　　または　　　b. ❑　いいえ

5b. Yes の場合, どのようなことを学んだり応用しましたか。

_____

6a. ﾌﾟﾛｼﾞｪｸﾄ時間中、オーラルイングリッシュスキルを使ってみましたか。

    a. ❑　はい　　　または　　　b. ❑　いいえ

6b. Yes の場合, 何を使いましたか。:

_____

次の **7－13** については**講義終了後**に記入してください。**7-11** の回答に関しては、ご自身の意見に最も適するもの *1つ* を選んでください。

7a. 英語を話す機会はありましたか。

    a. ❏   はい   または   b. ❏   いいえ

7b. 英語を書く機会はありましたか。

    a. ❏   はい   または   b. ❏   いいえ

8a. 英語を使って、意見、知識、アイデアを伝えたり、提案をしたりしましたか。

    a. ❏   はい   または   b. ❏   いいえ

8b. Yes の場合,どのようなことをしましたか。

_____

9a. 今日、英語でコミュニケーションをとるにあたり難しいところはありましたか。

    a. ❏   はい   または   b. ❏   いいえ

9b. Yes の場合, それはどのように解決しましたか。:

    a. ❏   常に日本語で
    b. ❏   大体日本語で、時折英語で
    c. ❏   日本語と英語半々で
    d. ❏   大体英語で、時折日本語で
    e. ❏   常に英語で
    f. ❏   しませんでした

10a. プロジェクト時間中、常に英語で明確に説明することができましたか。

    a. ❏   はい   または   b. ❏   いいえ

10b. No の場合、パートナーが理解できなかった時あなたはどうしましたか。

    a. ❏   別の英語で説明せず、日本語で言った。
    b. ❏   別の英語で説明してみたが上手くいかなかったので日本語を使った 。
    c. ❏   別の英語を使って説明し、上手くいった。
    d. ❏   あきらめて、説明しようとしなかった。

11. プロジェクト時間中、どの程度英語を使いましたか。

    a. ❏   英語しか使わなかった
    b. ❏   ほとんど英語だったが少し日本語も使った
    c. ❏   半々程度
    d. ❏   ほとんど日本語で、少し英語を使った.
    e. ❏   日本語しか使わなかった

次の 12-13 に関しては、該当するものに全て (☑) チェックしてください。

12. プロジェクト時間中、あなたは作業を:

    a. ❏   一人で行った
    b. ❏   二人で行った
    c. ❏   三人以上のグループで行った

13. プロジェクト時間中、あなたは:

    a. ❏   英語で話した
    b. ❏   メンバーの話す英語を理解しようと努力した
    c. ❏   英語を読んだ
    d. ❏   英語で書いた

Appendix 10: Syllabus for the Oral English group

Course title: Oral English **Instructor**: Paul Moritoshi **Year**: 1st year **Open** (Spring semester or Autumn semester): Spring semester **Credits**: 2 **Compulsory or elective**: Compulsory
Outline and objectives: This course helps students to improve their English listening, speaking, reading and writing skills. Through projects in class, students will practice these four skills using the topics in the textbook. Homework for this course is to read **60,000 words** in English from storybooks (graded readers) in the library. Students should read a little each day to improve their English vocabulary and readings skills.
Course contents Week 1: Syllabus; Cards; ER; Informed consent; Respondent numbers; Pre-project survey;   Introduction to PBLL; Project #1 brief Week 2: Free time activities; Project work Week 3: Free time activities; Project work Week 4: Fashion; Project work Week 5: Fashion; Project work Week 6: Health; Project work Week 7: Health; Project work Week 8: Perform and record your infomercials (project #1); Post-project survey
Week 9: Planning graphic; Post-planning graphic survey; Project #2 brief; work Week 10: Our city; Project work Week 11: Our city; Project work Week 12: Gifts; Project work Week 13: Gifts; Project work Week 14: Your future; Project work; Course evaluation Week 15: Submit project #2; Survey 3
Assessment details: Attendance 10%, Active participation in English 30%, Exam 20%, Projects 2 x 15%, Extensive Reading 10%
Additional information for students: Students must try to communicate in English, not Japanese. When you have communication problems in English, do not use Japanese: Use communication techniques in English to explain your meaning or to check your partner's meaning. Students will do two projects in small groups. During the projects your team must plan, discuss and make decisions in English. Each team member must do a fair share of the work.
Textbook: Helgeson, M. et al (2003) *New English Firsthand Success*. Pearson-Longman.
Reference materials: Students must bring: Japanese-English-Japanese dictionary; notebook; project folder
Other information: Paul Moritoshi's email address is <paulmoritoshi226@hotmail.com>.

Modified orthographic transcript of interview held
on April 15th, 2011 with two participants of the Oral English group

Contextual information

Discourse genre: Oral interview conducted entirely in Japanese.

Location: Oral English course's classroom.

Participants: Paul Moritoshi (researcher/interviewer) and two college students who were participants from setting 3 of this research who self-selected the pseudonyms 'Azusa'(female) and 'Ayaka' (female). Note: These two students went to the same junior and senior high schools.

Date: 15th April, 2011

Recording equipment: An iPod placed in the centre of the interview table. (Verbal consent to record the session had been obtained from the participants prior to the start of the interview.)

Interview duration: 15 minutes, 51 seconds

Transcription key:

Paul: Interviewer/researcher
'Ayaka': Research participant #1
'Azusa': Research participant #2
. Indicates a sentence-terminating clause as suggested either by a pause and/or downward intonation.
? Indicates a question
' Indicates a contracted or abbreviated form, for example *they're* (they are) or *'coz* (because)
(x) Indicates a pause of approximately x seconds
[   ] Interpretation of non-verbal cues or guttural utterances
{unintelligible} indicates utterances that cannot be discerned.
"   " – Fabricated or real quotations.
/ - Indicates when the speaker restarts after a false start.
 「   」 - Explains an action performed during the interview

Transcript:

1. Paul: Well to start I would like to ask about your junior and senior high school English courses. When you studied with the Japanese teacher of English what did you study, what did learn? Pronunciation vocabulary grammar spelling

2. Ayaka: Grammar

3. Paul: in general

4. Azusa: At junior high school?

5. Paul: At junior high school.

6. Azusa: Grammar and vocabulary.

7. Paul: OK. What about pronunciation?

8. Azusa: We studied pronunciation by repeating what the teacher said.

9. Paul: Hmm 「turns to Ayaka」.

10. Ayaka: The teacher didn't repair our pronunciation.

11. Paul: Hm OK so mainly what did you do?

12. Ayaka: Usually grammar.

13. Paul: Grammar OK. Was that with the Japanese teacher of English? [Both Azusa and Ayaka nod in confirmation.] Did you study with an ALT?

14. Azusa: Yes.

15. Paul: At both junior and senior high school?

16. Azusa: For two years at senior high school there wasn't an ALT.

17. Paul: 「Paul turns to Ayaka.」

18. Ayaka: I had both the foreign teacher's lessons and the Japanese teacher of English's lessons.

19. Paul: What did you study during the ALT's English lessons?

20. Azusa: After summer holiday we wrote about the memories of the vacation in sentences and gave a presentation and took a video of the presentation. Then the foreign teacher evaluated the presentations and chose the best speaker.

21. Paul: Ah OK so the preparation and presentation was during the lesson?

22. Azusa: Yes.

23. Paul: Ayaka how about you?

24. Ayaka: Basically we practiced daily conversation.

25. Paul: Hmm I see. So how many times each month did you have a lesson with the foreign teacher?

26. Ayaka: How many times a month?

27. Paul: Or in a term? How many times? Do you remember?

28. Azusa: In one month about twice.

29. Paul: About twice. Ayaka?

30. Ayaka: About twice a week.

31. Paul: Every week?

32. Ayaka: Yes. At senior high school we had the foreign teacher's lesson about twice a week.

33. Paul: Great.「Ayaka and Azusa both laugh.」Was your senior high school a big school?

34. Ayaka: No not at all.

35. Paul: Ah maybe that's why. Hmm about your experiences with the foreign language teacher's lessons. Did you have any problems? How was it?

36. Azusa: Problems?

37. Paul: For example were you embarrassed to speak in front of the foreign teacher?

38. Azusa: No.

39. Paul: Was it alright? OK?

40. Ayaka: OK.

41. Paul: So did you have any good experiences during the Japanese teacher's lessons or the native speaker's lessons? Did you have any experiences that made you like English or want to learn English more? Did you have any experiences like that?

42. Azusa: From the teacher?

43. Paul: From the teacher or from your friend or maybe a foreigner came to your school.

44. Azusa: Foreign exchange students came to our school. They used Japanese and we talked in English in the classroom.

45. Paul: Oh I see. How many days?

46. Azusa: They didn't come for so long only one day.

47. Paul: Oh only for one day and from that experience you wanted to improve your English?

48. Ayaka: Yes, I did.

49. Paul: Ayaka?

50. Ayaka: We had lessons with the foreign exchange students. What did we do? When we heard about their culture we thought we wanted to go there.

51. Paul: Ah yeah. Conversely did you have any bad experiences or problems when you were studying English at junior or senior high school? "I hate English" "I don't want to study it any more" "I want to give up". Did you have that feeling? Did you have that experience?

52. Azusa: When I didn't know how to make English sentences.

53. Paul: You had some stress?

54. Azusa: Yes.

55. Ayaka: We learned too much grammar but did not have enough opportunities to speak daily conversation English.

56. Azusa: Speaking.

57. Ayaka: Yes.

58. Paul: OK. About your experiences learning English with projects (3) when you were junior or senior high school students did you have any experience doing English projects by preparing the projects in English?

59. Azusa: English projects in English?

60. Paul: So the project we are doing now is an infomercial. The infomercial is in English but also preparing the infomercial in English. Talking about various ideas in English well maybe a little Japanese but 「everyone laughs」 but usually preparing in English talking about various ideas in English so preparing the English project using English. Did you have that experience when you were junior or senior high school students?

61. Ayaka: A little.

62. Paul: What was that project?

63. Ayaka: We made family trees and did one about the things we want to do in the future.

64. Paul: Were they done individually or in groups?

65. Ayaka: Individually.

66. Paul: Individually so if you prepared your projects individually how did you prepare them in English?

67. Ayaka: We used mainly Japanese.

68. Paul: 「Paul turns to Azusa.」

69. Azusa: The summer holiday project is that maybe not the same thing?

70. Paul: If you prepared the project individually then you are not talking with other students in English or in Japanese. The meaning of a project is that you prepare in groups for about two months or one term then finally you give the presentation or show the video or the poster. So perhaps you can make the project individually but you cannot prepare the project in English because you are not talking with other people. Did you have that experience?

71. Azusa: Ah well I don't have experience of projects in groups.

72. Paul: But by yourself you did prepare an explanation of the things you did during your summer holiday.

73. Azusa: [Azusa nods.]

74. Paul: I see. OK. (5) So during your English lessons the teacher says "Speak in English. Explain in English. English, English, English. One hundred percent in English". How do you feel if you have to use only English?

75. Azusa: If the teacher uses only English?

76. Paul: No. During project time you can only talk with your friends in English. If we had an English only rule how would that be?

77. Azusa: Good 「she laughs」

78. Paul: [Gives a surprised laugh] Do you want that?

79. Azusa: I think it is good.

80. Paul: Why do you think it is good?

81. Azusa: I think it's good. If so then we try to think in English and then if we think in English we use the same words repeatedly and eventually remember those words so that's good.

82. Paul: Hmm that is a good point. What about problems?

83. Azusa: Oh problems?

84. Paul: Both good points and problems.

85. Azusa: Ahh. [nods in understanding]

86. Ayaka: I don't know how to use words in a given situation so I cannot express my feelings the way I want to so it is very difficult so I get frustrated sometimes. 「everyone laughs」.

87. Paul: I see. OK. So at that time maybe you want to use Japanese a little so there's no rule that you have to use only English. If you can then speak in English but if it is completely impossible then it's alright to speak a little in Japanese then revert back to

English as soon as you can. How would that be? It is not half each but each person decides their own balance.

88. Azusa: Good.

89. Paul: Good? And if you used Japanese what would you use it for

90. Azusa: Questions

91. Paul: Questions. To other members of your team

92. Azusa: Hm [nods in affirmation]

93. Paul: or to the teacher

94. Azusa: [nods in affirmation]

95. Paul: or both?

96. Azusa: [nods in affirmation]

97. Paul: OK so when you have a question. Anything else?

98. Azusa: [Azusa turns to Ayaka] Anything else?

99. Ayaka: I think we have to minimize the use of Japanese because it won't improve our English so I think that's enough.

100. Paul: Hmm yes that is true「everyone laughs」OK so if you speak in English and another team member speaks in Japanese will you revert immediately to Japanese or would you continue to speak in English? (3) [Ayaka and Azusa seem not to understand the question.] Do you understand?

101. Azusa: I don't understand what you mean.

102. Paul: So if you have three people in your group and you speak in English you want to try hard in English but another student is speaking in Japanese. In that case what would you do? Would you tell the person "Please speak in English" or would you speak in Japanese? (3) If another person talks in Japanese would you speak in Japanese too.

103. Azusa: I think I use Japanese more hmmm I'm not sure.

104. Paul: (15)「Paul looks through his interview schedule notes」OK that is all. Thank you very much.

Appendix 12: Standardised interview protocol

Pre-interview:

1. State the following clearly in simple, comprehensible language:

   a) the purpose of the interview,

   b) the anticipated duration,

   c) a reassurance that respondents can use their L1 or English as they prefer. L1 responses can be translated later,

   d) mention that only the pseudonyms will be used in the transcripts and that identities will remain anonymous,

   e) informants can receive a copy of the transcript upon request.

2. Informants

   a. self-select their pseudonyms for pre-project interviews **or**

   b. are reassigned their pre-project pseudonyms for post-project interviews.

3. Explain the need for the iPod recording and obtain permission to use it.

4. Field any questions from informants before the interview starts.

5. Ask the informants if they are ready to start.

6. Turn on the iPod.

During the interview

1. Use the schedule of questions and follow up on potentially useful lines of inquiry.

2. At the end, state that this is the end of the interview.

3. Thank everyone for their time.

Post-interview:

1. Turn off the iPod.

2. Thank everyone again for their time

3. Offer the gratuities.

Appendix 13: Standardised survey protocol

<u>Pre-survey</u>

4. Distribute the forms.

5. Before participants start, state the following in clear, simple language:

   a) Explain the general purpose of the form.

   b) Briefly introduce each of the parts and explain how to complete them.

   c) Say "Please write today's date, your group name and respondent number at the top of the form."

   d) Say "There are no right or wrong answers. It is your honest and complete opinion that will be most helpful to this research."

   e) Say "If there is a question you don't understand, please let me know."

   f) Say "Please read the instructions and questions carefully before answering. This will help you notice strengths and weaknesses in your own English."

   g) Say "Please write your answers clearly, in Japanese, Chinese or English, whichever is easier for you to express yourself clearly."

   h) Say "Are there any questions?" Clarify as necessary.

   i) Say "Please start."

<u>During the survey</u>

1. Place the receiving envelope on a desk at the front of the class.

2. Remain alert for students raising their hand to ask questions.

3. Stay at the front of the class unless called by a student.

4. Look pre-occupied or busy.

5. When everyone has finished, ask them to check that they have written the header information correctly.

6. Then ask them to put their surveys in the envelope at the front of the class.

<u>Post-survey</u>

1. Thank the participants for their time.

2. Check that all participants have put their completed forms in the envelope.

3. Put the envelope in your rucksack.

Appendix 14: Pre-/post-project self-ratings and levels of change in TL macro-skills

Figure 1a: Pre-project self-ratings for English speaking ability
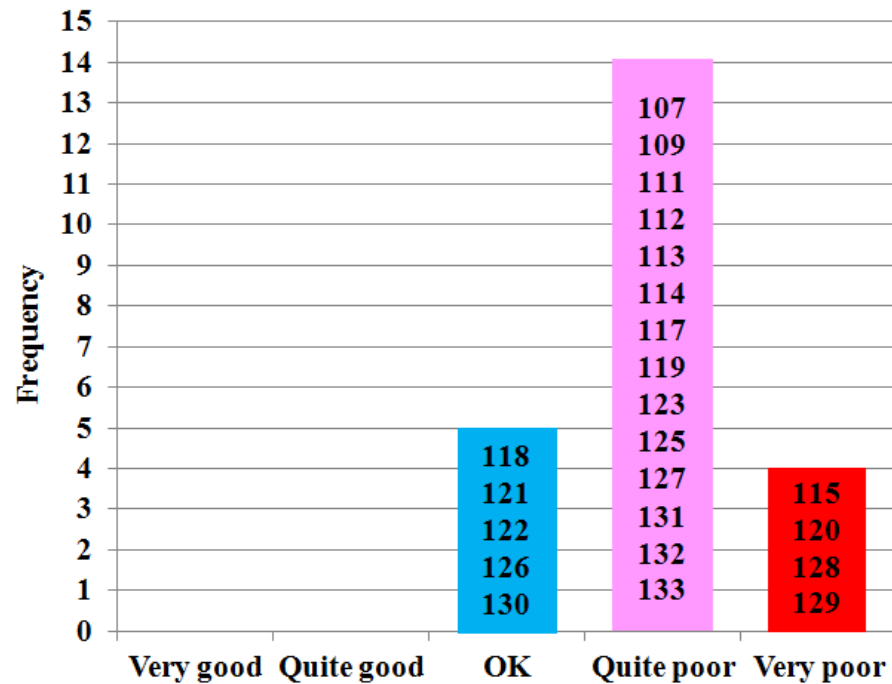
Figure 1b: Post-project self-ratings for English speaking ability
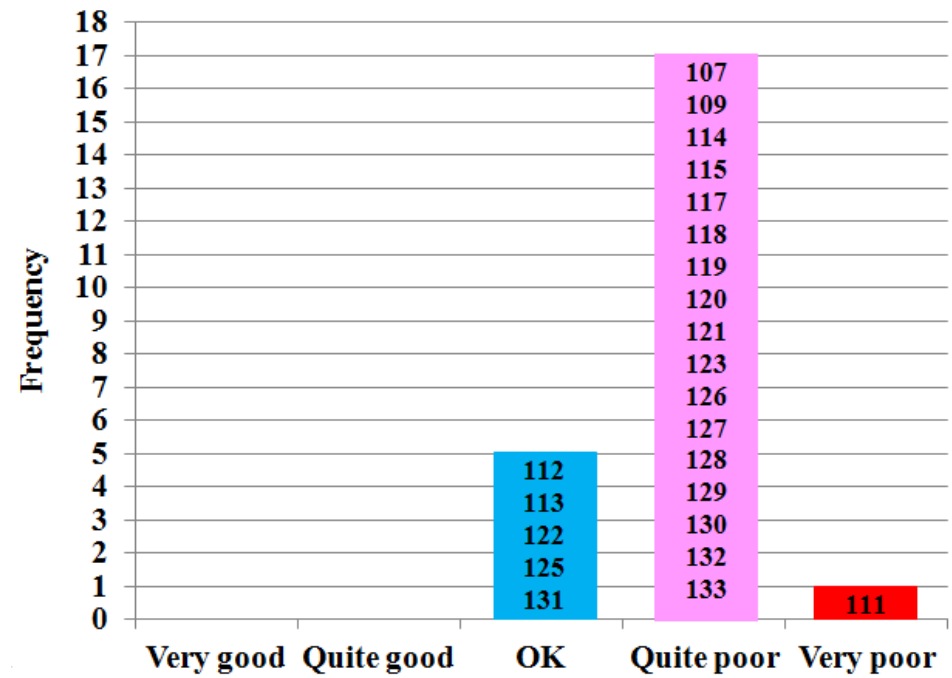
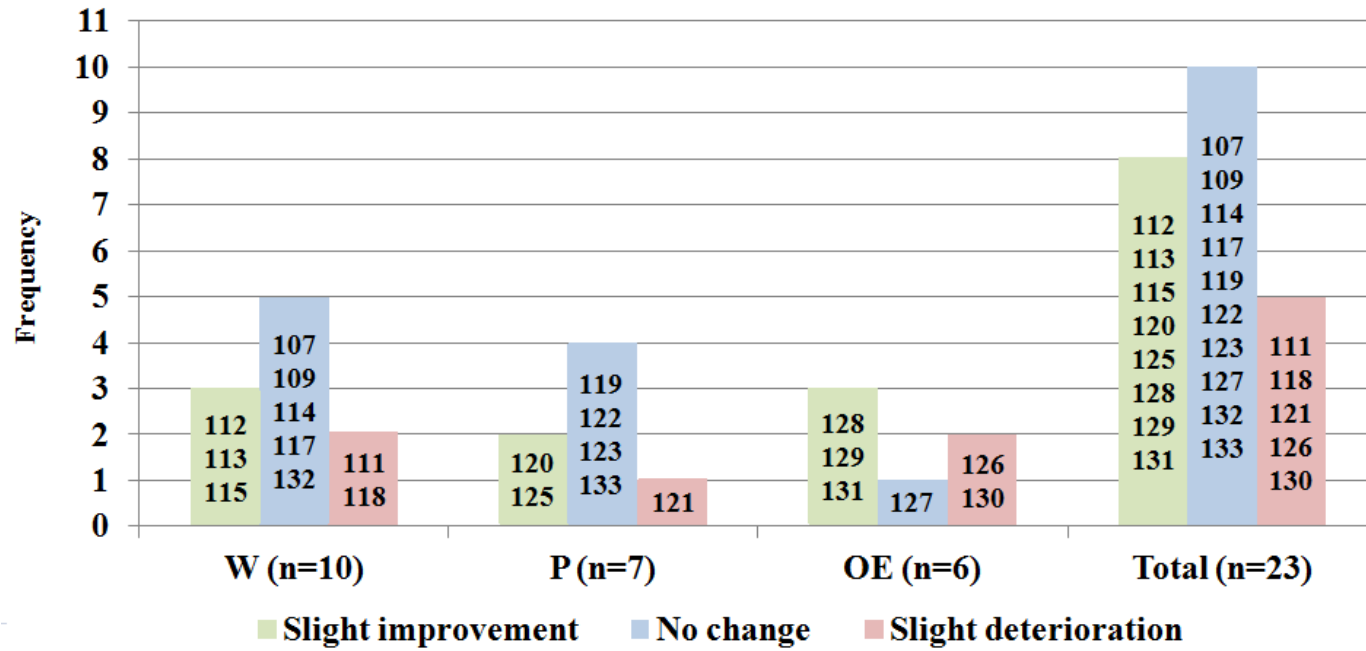Figure 1c: Frequency of students by level of change in English speaking ability (unadjusted)

Figure 1d: Frequency of students by level of change in English speaking ability (adjusted)

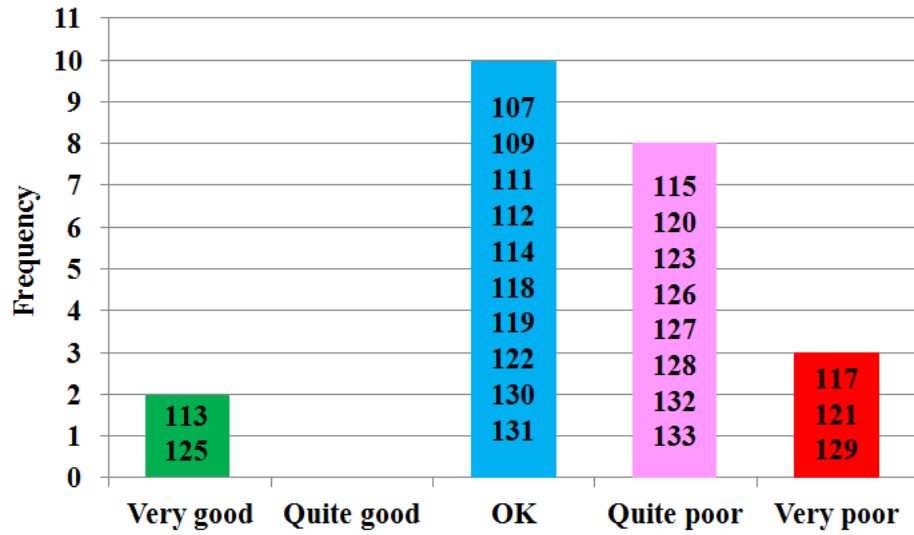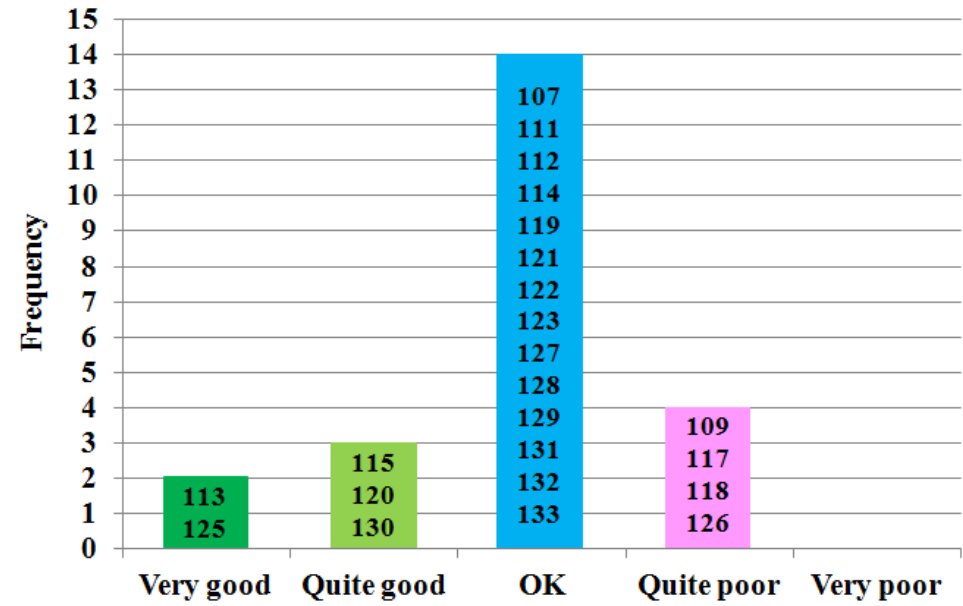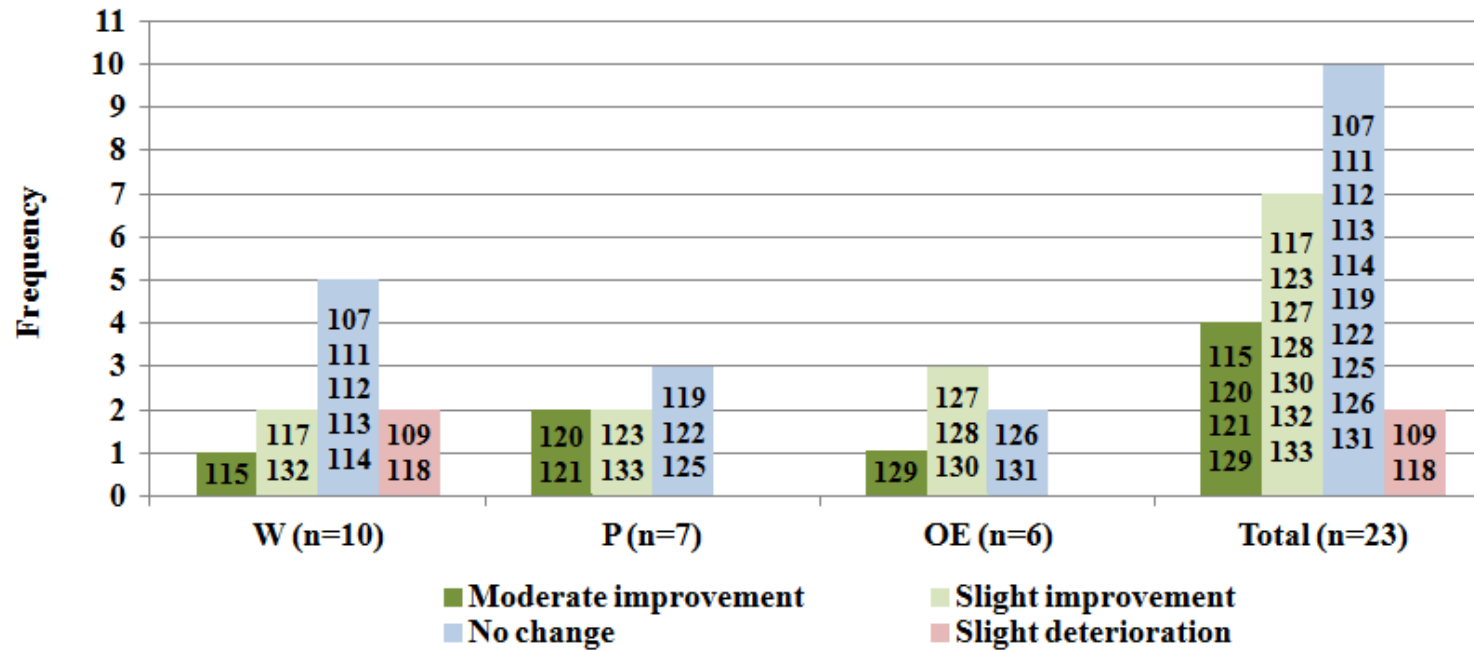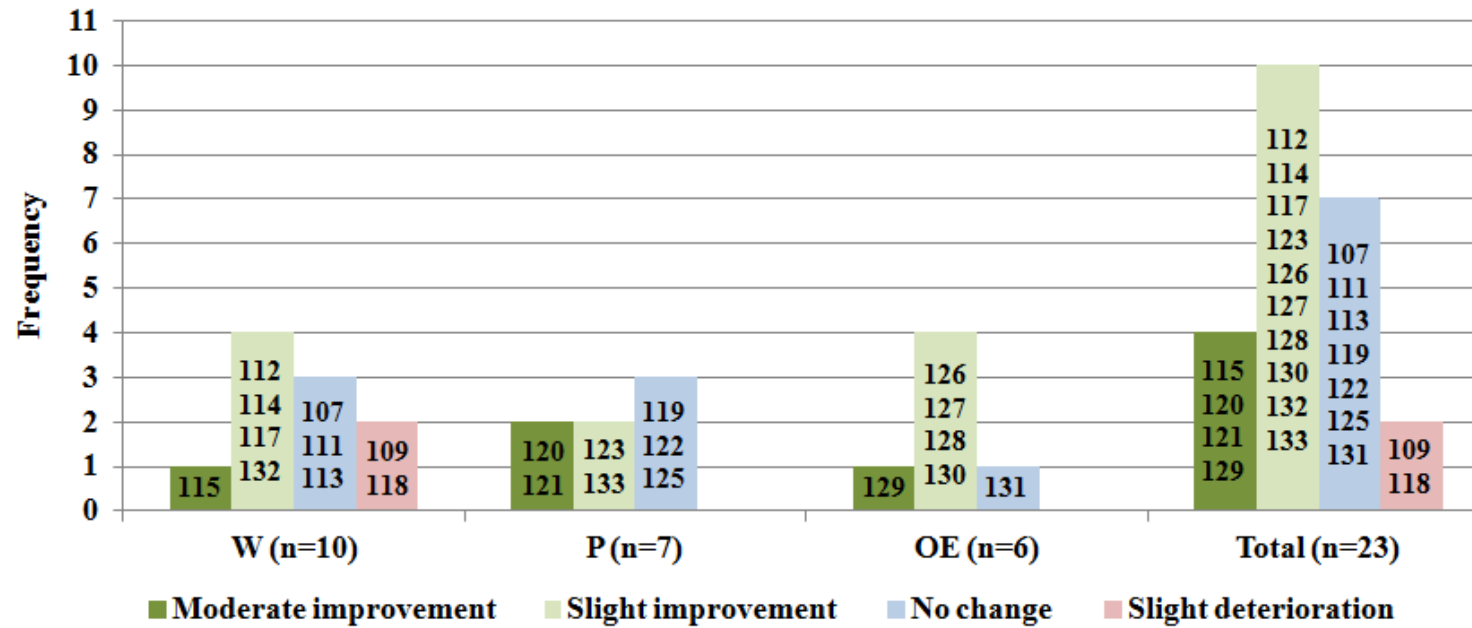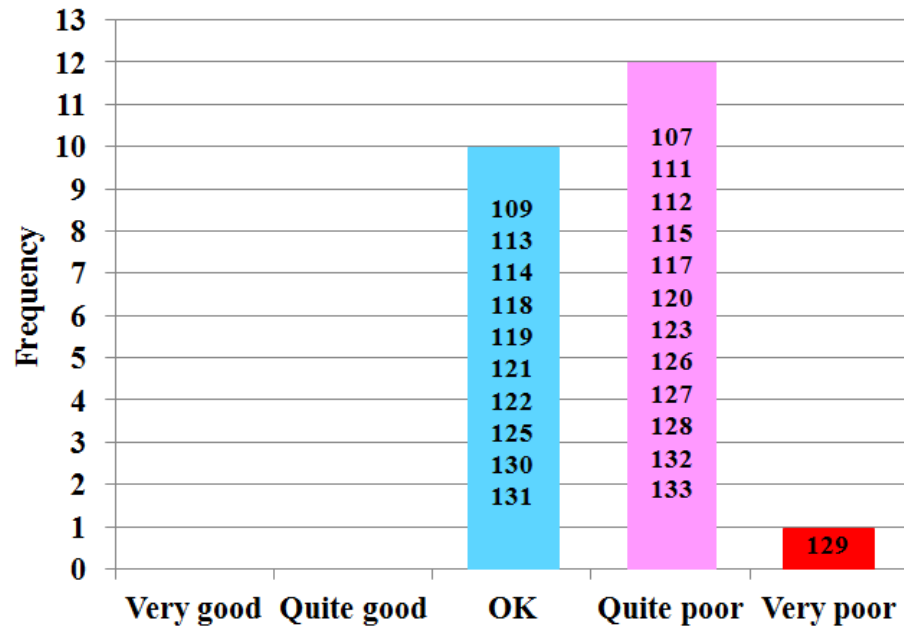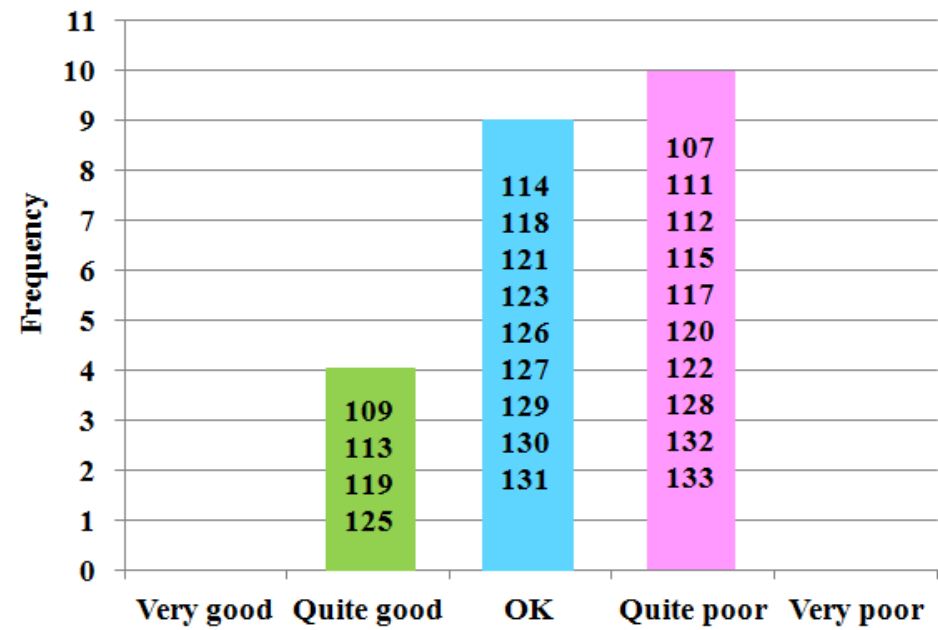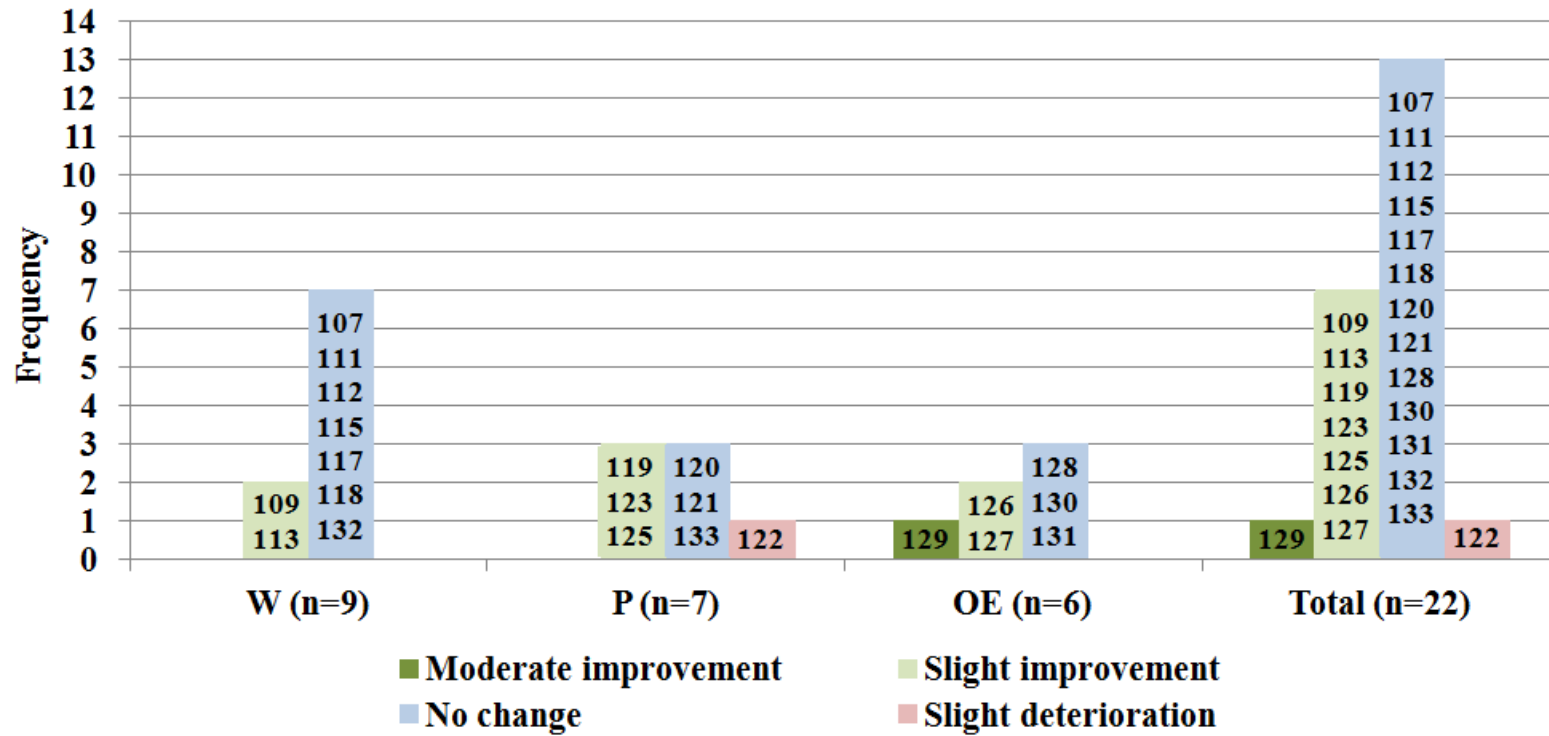Figure 2a: Pre-project self-ratings for English listening ability

Figure 2b: Post-project self-ratings for English listening ability

Figure 2c: Frequency of students by level of change in English listening ability (unadjusted)

Figure 2d: Frequency of students by level of change in English listening ability (adjusted)

Figure 3a: Pre-project self-ratings for English reading ability

Figure 3b: Post-project self-ratings for English reading ability

Figure 3c: Frequency of students by level of change in English reading ability (unadjusted)

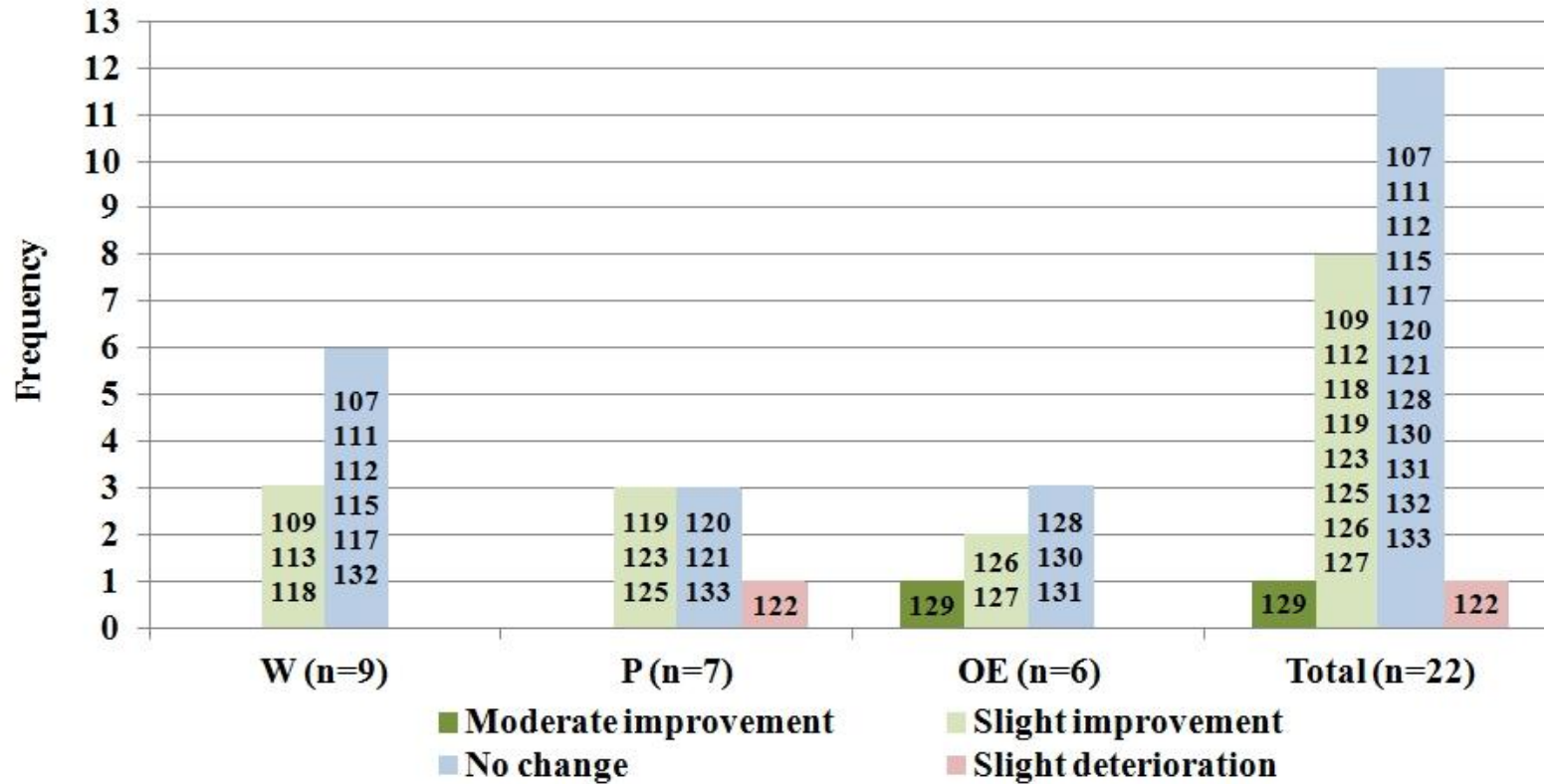Figure 3d: Frequency of students by level of change in English reading ability (adjusted)

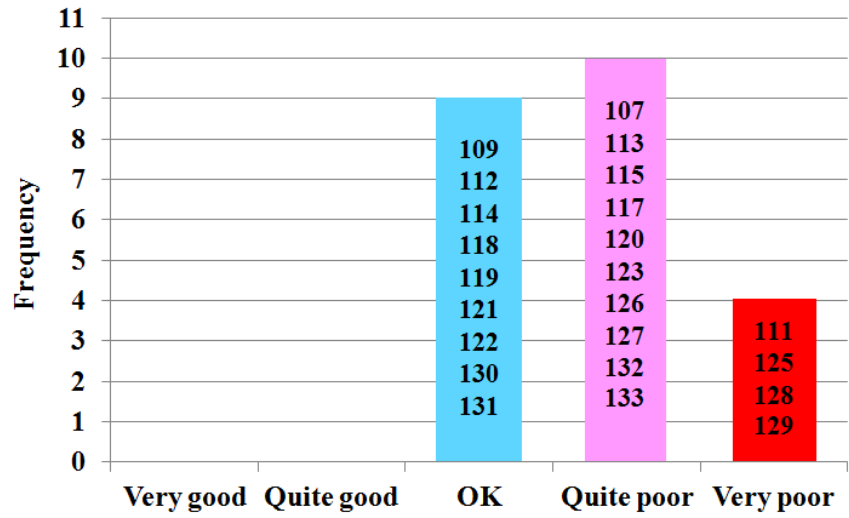Figure 4a: Pre-project self-ratings for English writing ability

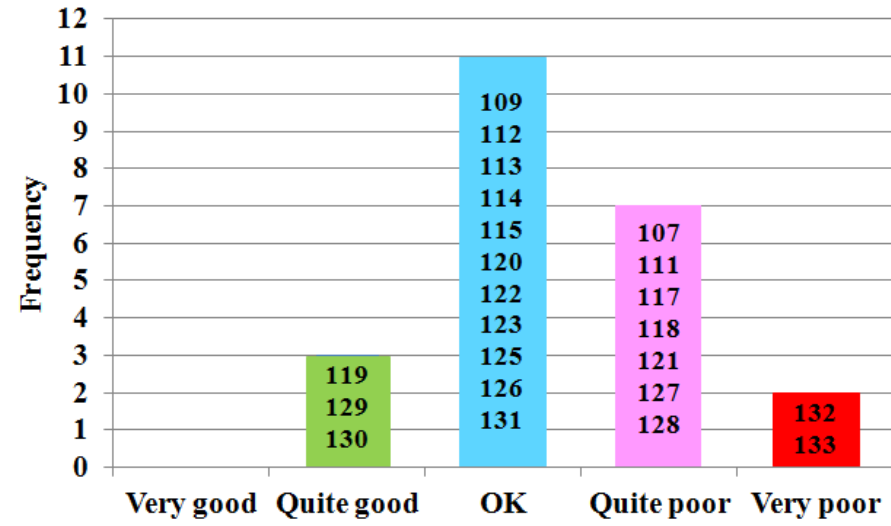Figure 4b: Post-project self-ratings for English writing ability

Figure 4c: Frequency of students by level of change in English writing ability (unadjusted)
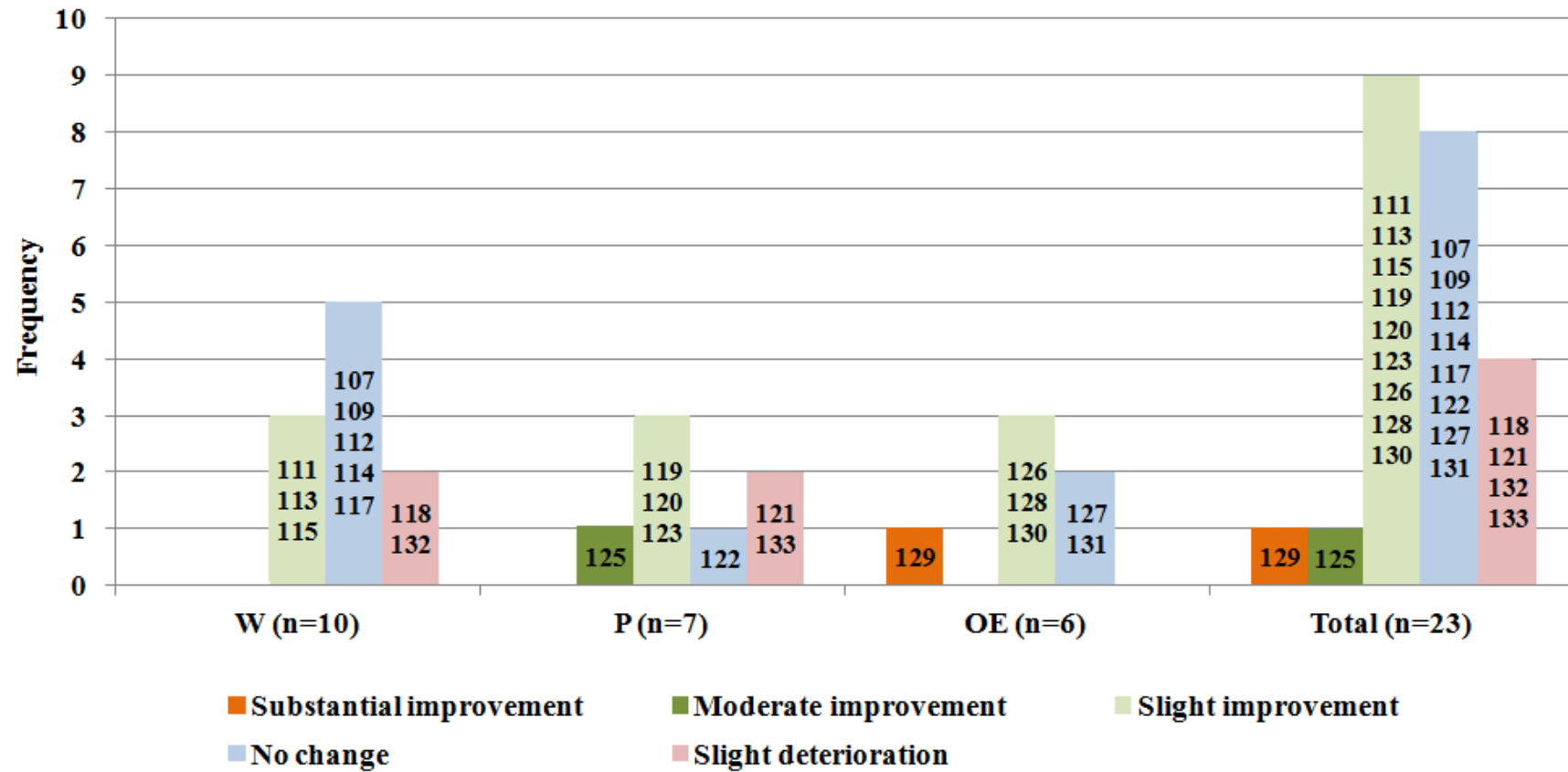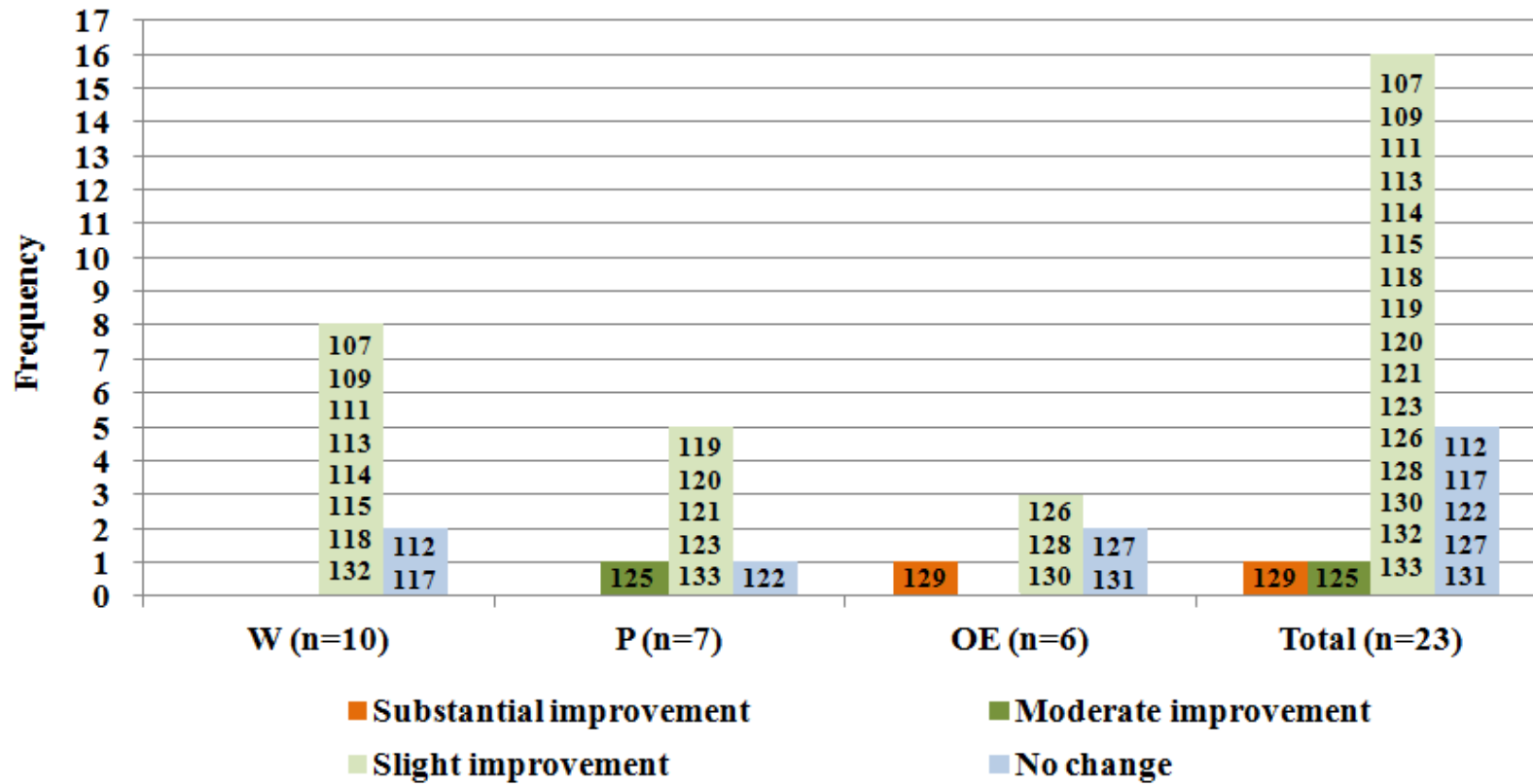
Figure 4d: Frequency of students by level of change in English writing ability (adjusted)

Appendix 15: Pre-/post-project self-ratings and levels of change for TL knowledge

Figure 1a: Pre-project self-ratings for English grammar knowledge

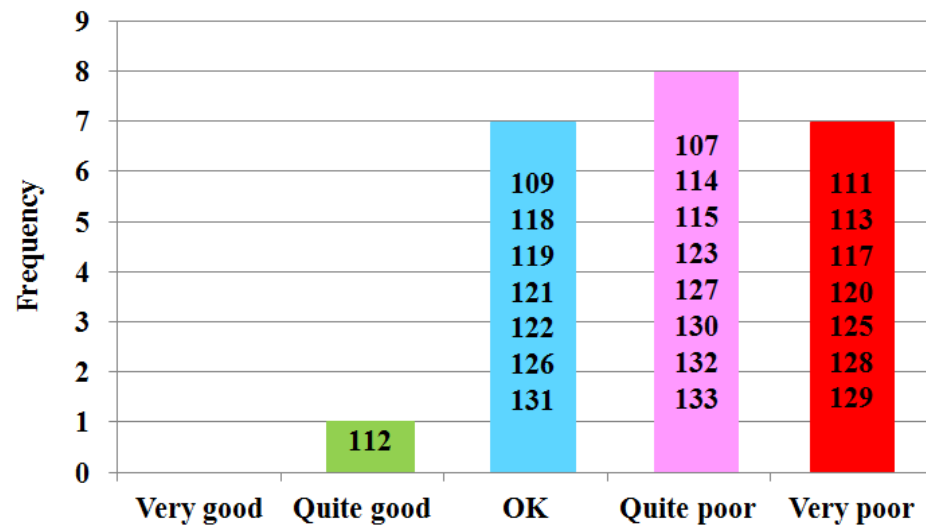Figure 1b: Post-project self-ratings for English grammar knowledge

Figure 1c: Frequency of students by level of change in English grammar knowledge (unadjusted)

Figure 1d: Frequency of students by level of change in English grammar knowledge (adjusted)

Figure 2a: Pre-project self-ratings for English vocabulary knowledge

Figure 2b: Post-project self-ratings for English vocabulary knowledge

Figure 2c: Frequency of students by level of change in English vocabulary knowledge (unadjusted)

Figure 2d: Frequency of students by level of change in English vocabulary knowledge (adjusted)
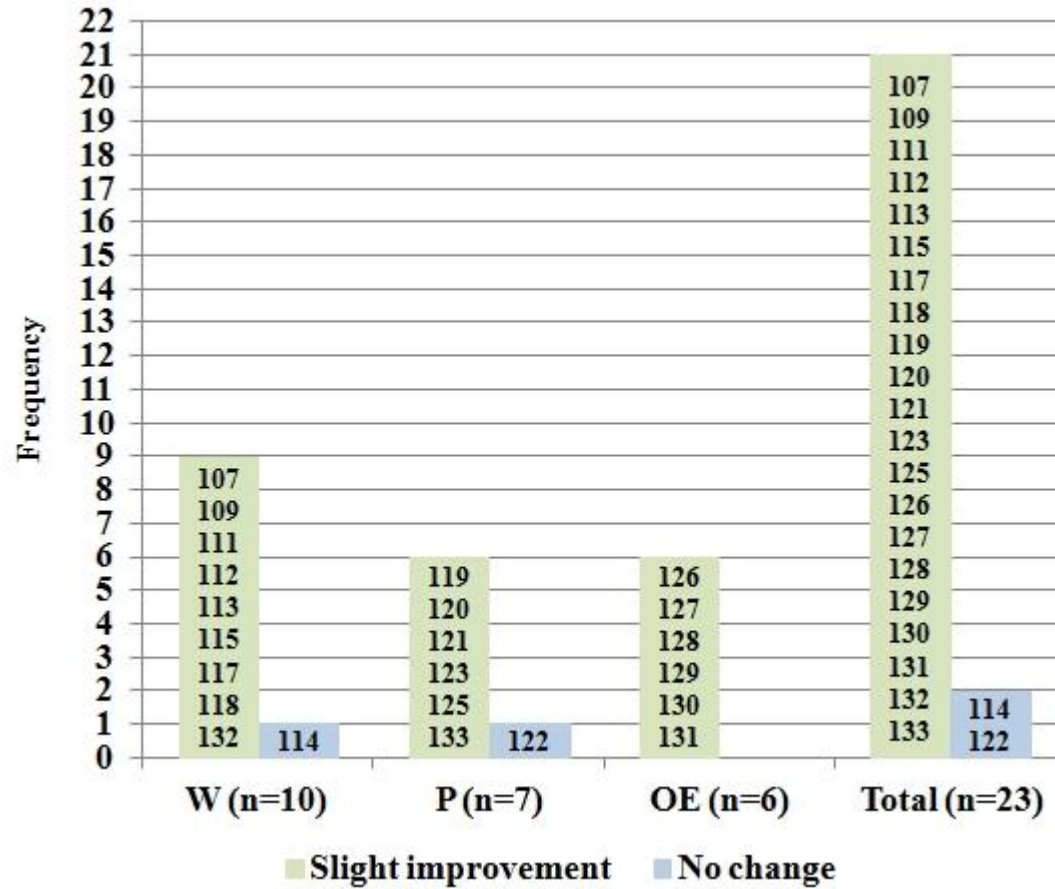
Figure 3a: Pre-project self-ratings for English spelling knowledge
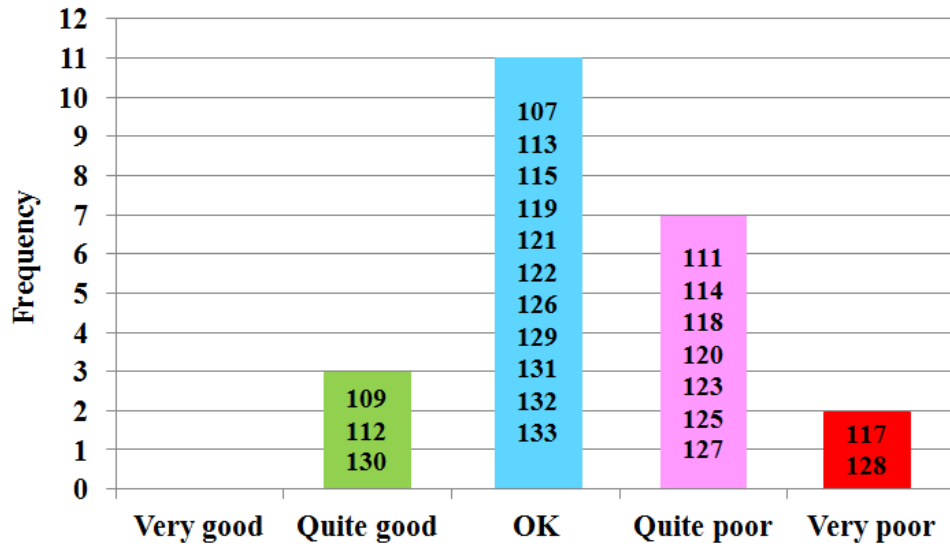
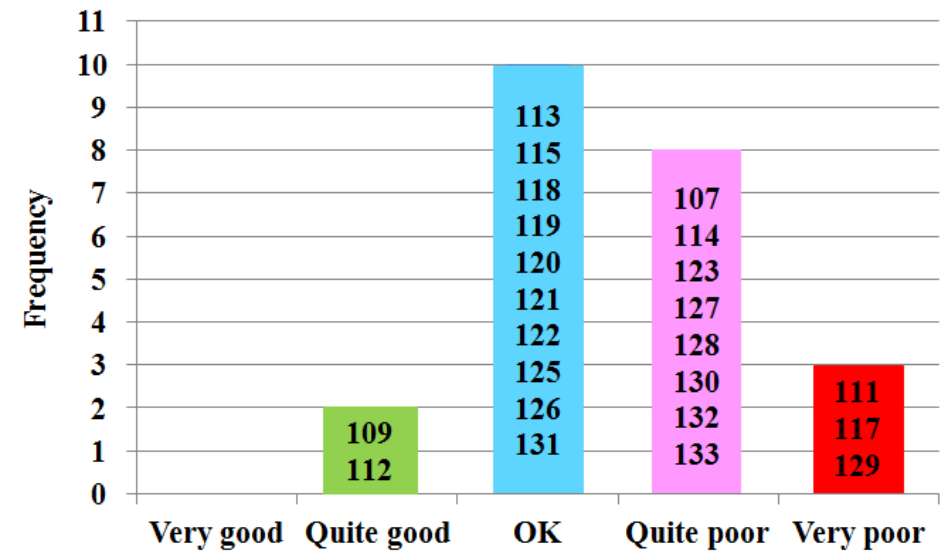Figure 3b: Post-project self-ratings for English spelling knowledge

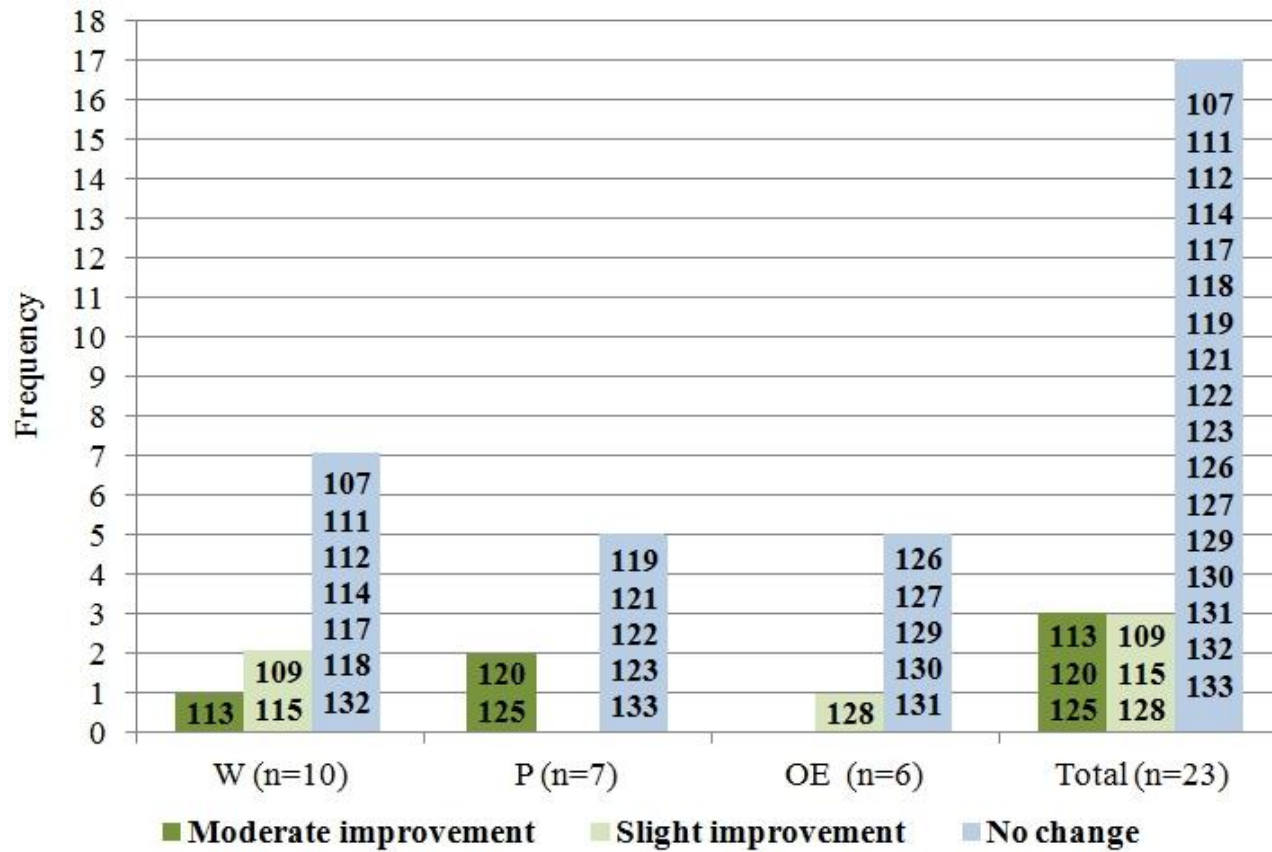Figure 3c: Frequency of students by level of change in English spelling knowledge (unadjusted)

Figure 3d: Frequency of students by level of change in English spelling knowledge (adjusted)
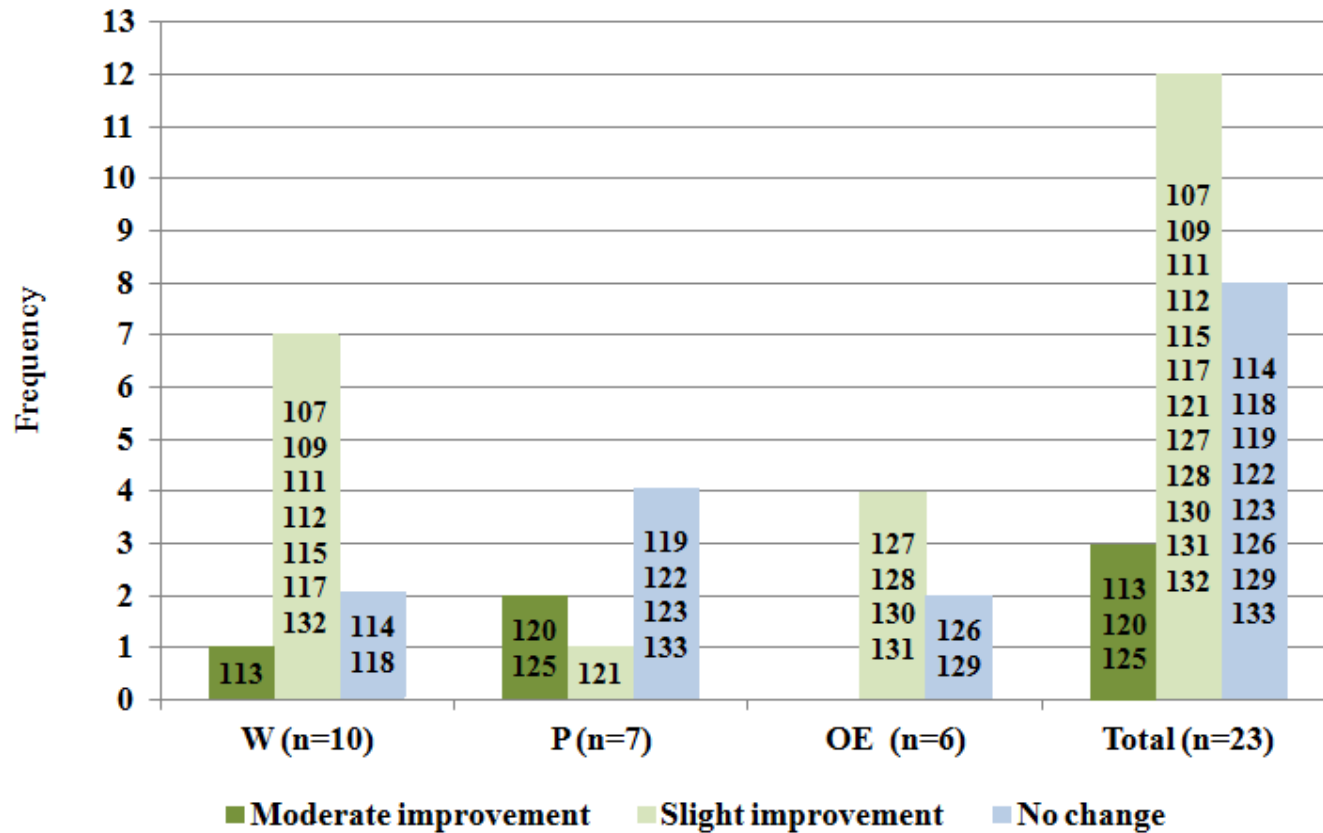
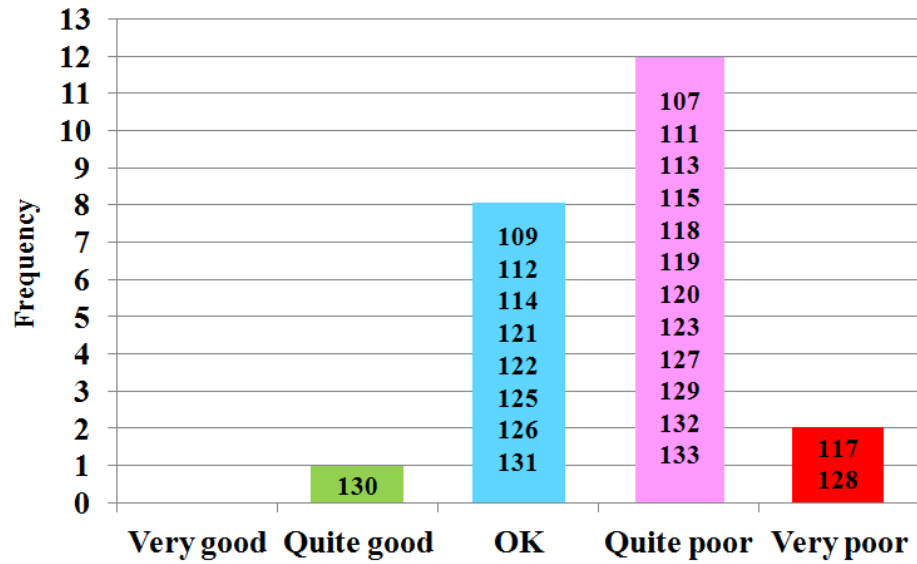Figure 4a: Pre-project self-ratings for English pronunciation knowledge

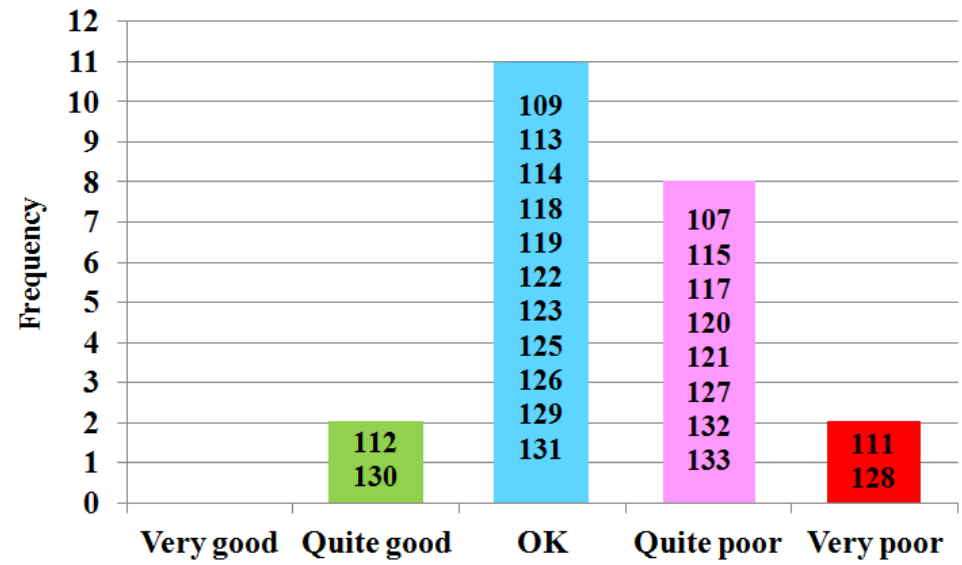Figure 4b: Post-project self-ratings for English pronunciation knowledge

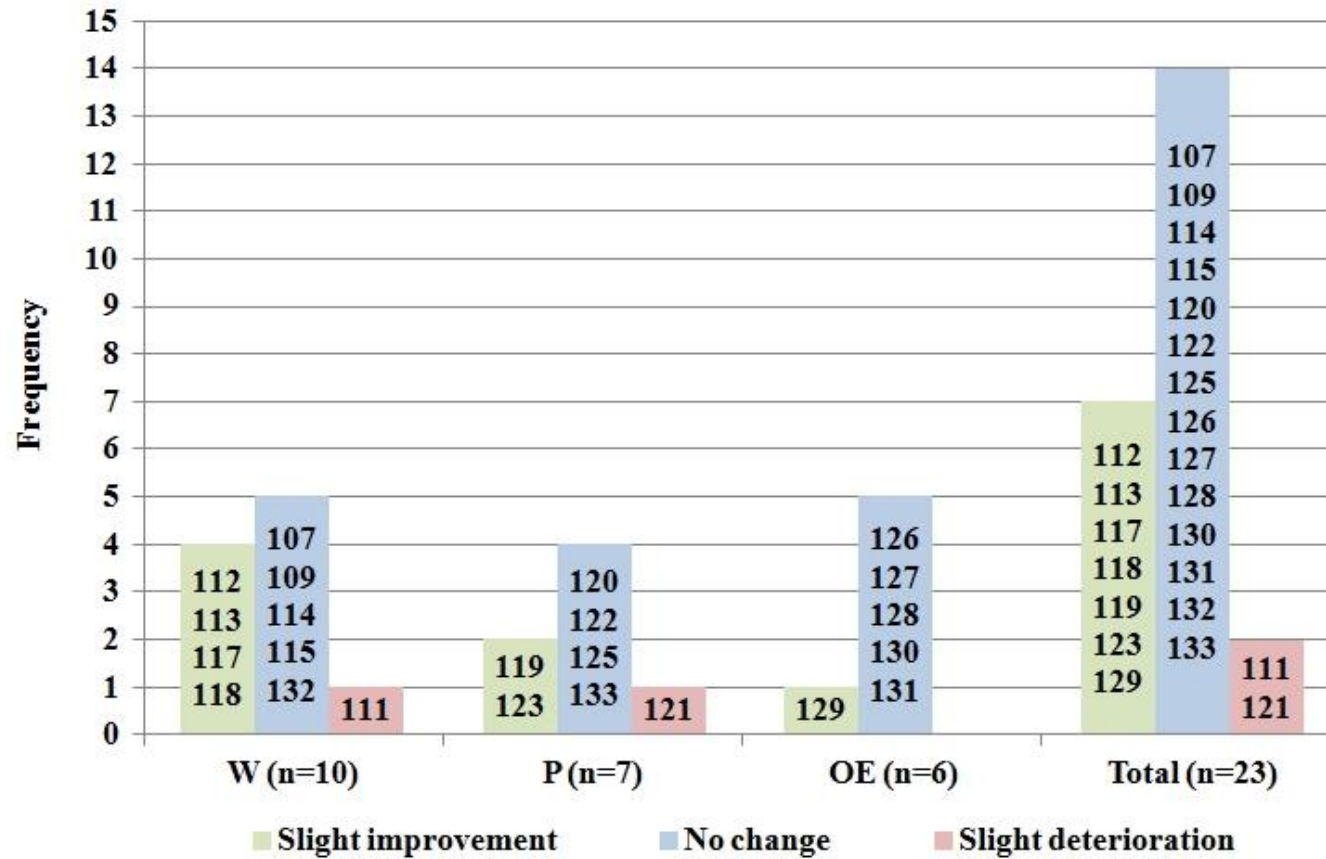Figure 4c: Frequency of students by level of change in English pronunciation knowledge (unadjusted)

Figure 4d: Frequency of students by level of change in English pronunciation knowledge (adjusted)
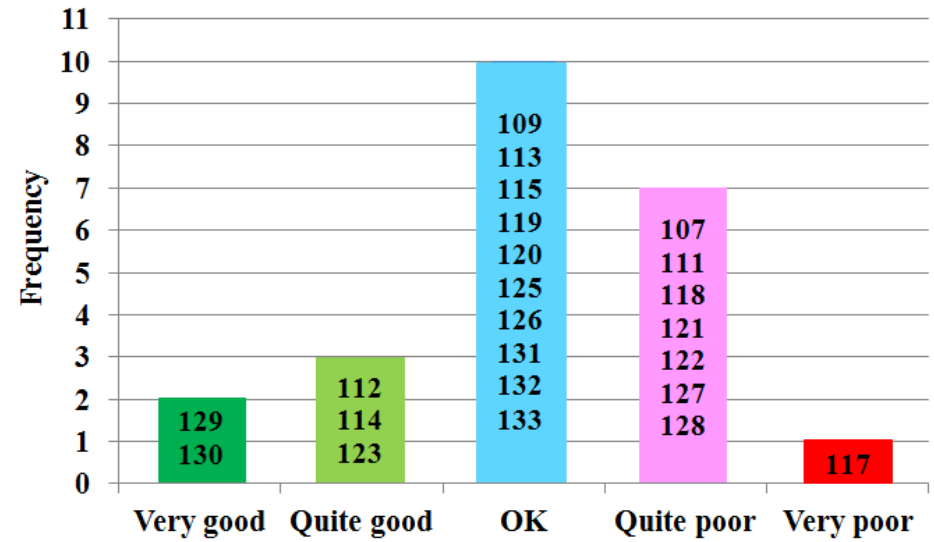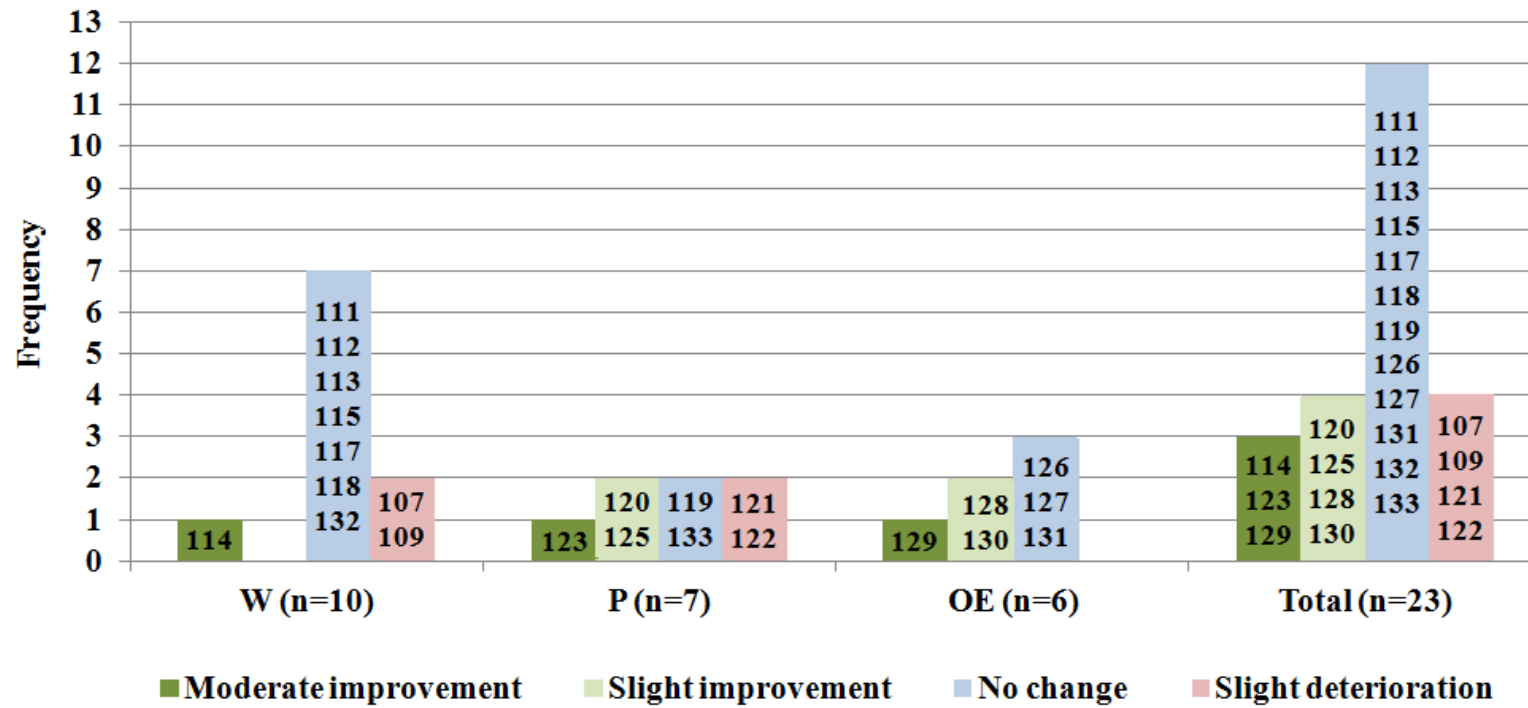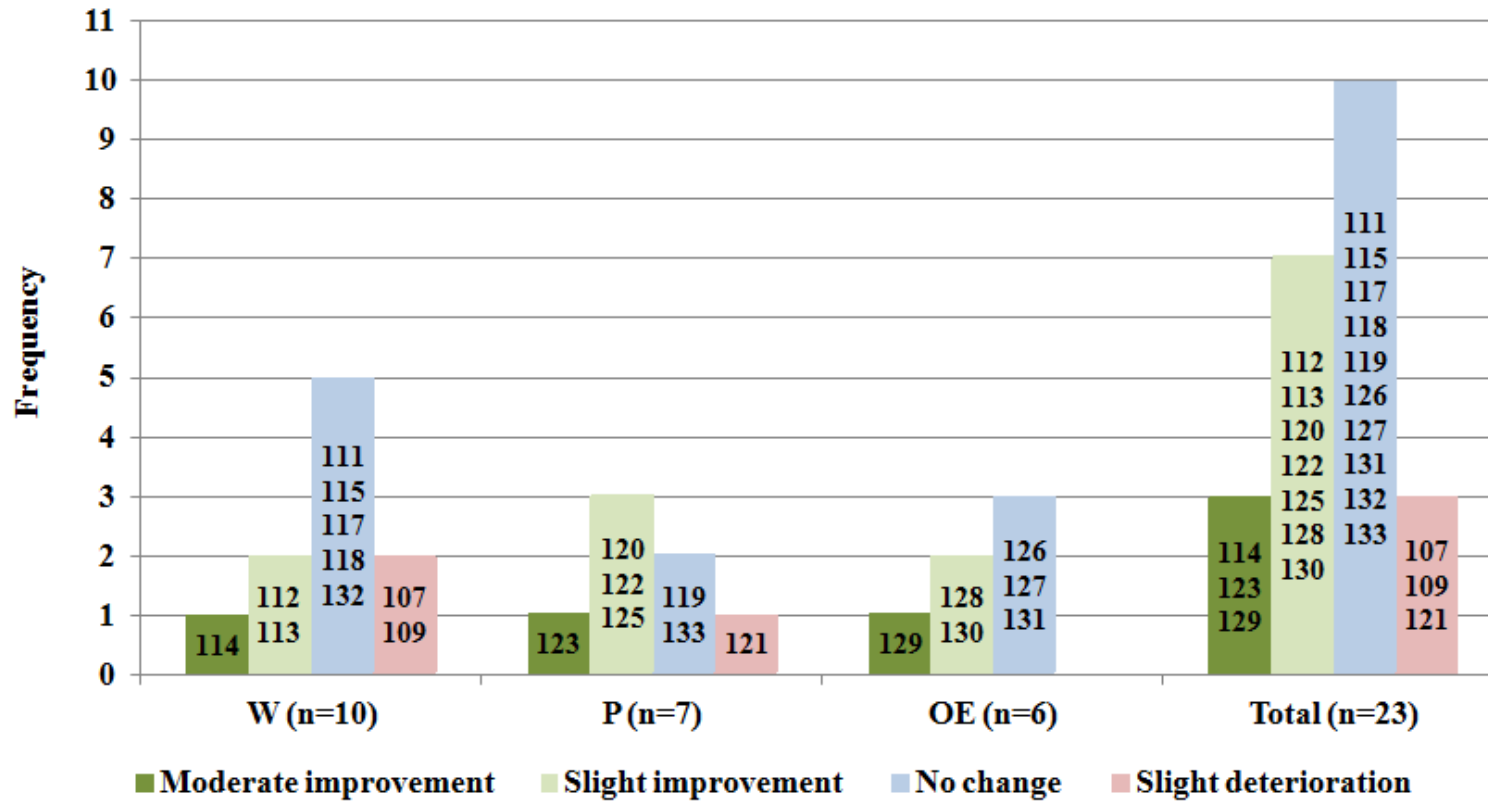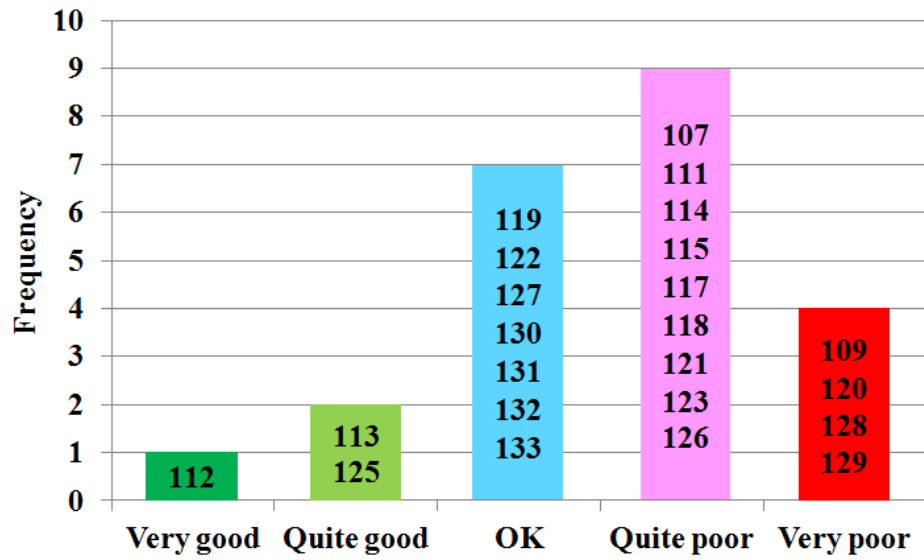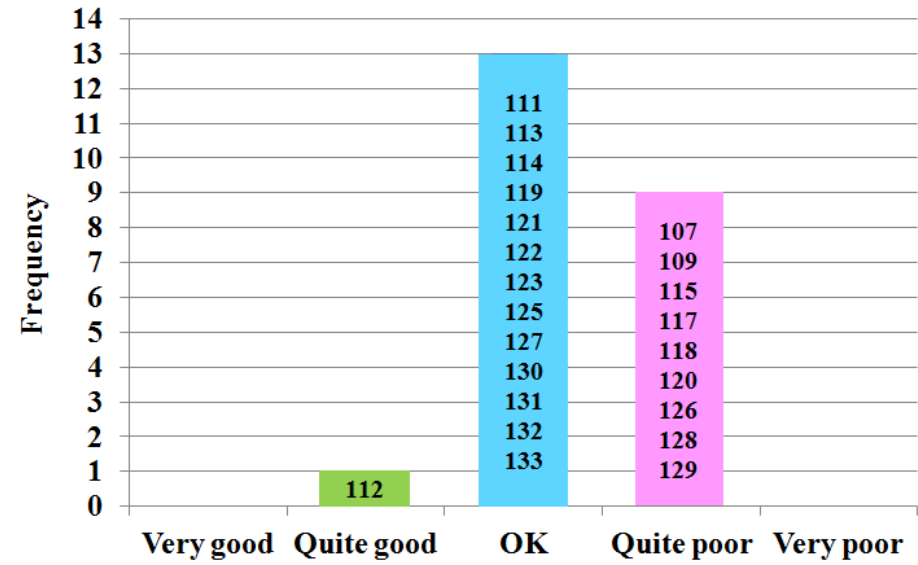
Appendix 16: Transcript of the Writing group's news story

Fukushima earthquake and tsunami

Turn	Role	Lines
1	Reporter (Shiho)	Hello. Today I'm going to ask a victim about the earthquake in Fukushima on March eleventh. Hello, excuse me. Can I ask you some questions?
2	Victim (Daisuke)	OK, sure.
3	Reporter	Thank you. What's your name?
4	Victim	I'm Daisuke
5	Reporter	OK Daisuke
6	Reporter	When the earthquake was happening, where were you?
7	Victim	I was in my house sleeping in bed.
8	Reporter	What were you thinking?
9	Victim	I thought I was going to die because it was a big earthquakes, so couldn't even think about my family and friends.
10	Reporter	How did you know about the tsunami warning?
11	Victim	By watching the TV news.
12	Reporter	When did you know about the nuclear power plant in Fukushima?
13	Victim	A few days after the earthquake.
14	Reporter	What did you think when taking refuge in the evacuation area?
15	Victim	Of course I didn't want to leave my home but my house was broken so I had to. I had no choice.
16	Reporter	Do you know accurate information about the nuclear power plant?
17	Victim	Yes, I'm always listening to **th**e radio and checking my phone.
18	Reporter	What do you think about the nuclear power plant safety?
19	Victim	I hate it. It's still in danger, so I hope it doesn't explode. I want to get back home earlier.
20	Reporter	Thank you Daisuke. Now I'd like to talk wi**th** Hana. She is a nuclear power plant expert.
21	Expert (Hana)	At first, I'd like to explain the structure inside a nuclear power plant. (Illustration) When the earthquake was happening, the control rods were activated at once to control the temperature but the pump was broken. So it isn't able to cool the water. That's why we had a meltdown of a reactor. If there was radioactive contamination, it would stay there for at least ~~about~~ thirty years in Japan. Maybe after about sixty years, a few people can live in some places. In fact I guess one hundred and twenty years later.
22	Reporter	Oh, so we have to wait for a long time, don't we?
23	Expert	Yes, that's right.
24	Reporter	Hana, in this case, when can people live safely there and when can they grow ~~a~~ plants there?

25	Expert	We have many serious problems. For example first, the report on this accident decided on April twelfth it was the same danger level as Chernobyl, level seven. This is the most dangerous level. Second, on April twenty first, we detected radioactive iodine in four people in Chiba and Ibaraki prefectures. Eventually, on May twenty third, we had a meltdown in the first, second, third reactors. That's why we have to wait for a long time.
26	Reporter	This problem is not only for the Japanese, but for everybody. It's an international problem. Let's think about what can we do and what should we do. Thank you.

Appendix 17: Grammar points reported as learned, improved or corrected

'O' indicates the presence of reported learning, improvement or correction.

The superscripts' meanings are provided in the key below the table.

An empty cell means no report of learning, improvement or correction in that case.

| Part. # | Grammar points | | | | | | | | | | Individual total |
	Verb tenses	Modals	Conditionals	Comparative & Superlative	Articles	Pronouns	Prepositions	Adjective modifiers	Defining relative clause	Misc.	
W107							O				1
W108	O^1				O		O			O	4
W109	O^1				O						2
W110	O^2		O^6					O			3
W111				O	O			O		O	4
W112					O						1
W113	O^3								O		2
W114			O^6								1
W115	O^2				O			O		O	4
W116			O^7		O		O			O	4
W117	O^2						O	O			3
W118					O						1
W132			O^7					O			2
P119											0
P120											0
P121											0
P123											0
P124											0
P125											0

											Total
P133											0
P134											0
OE126	O^4	O^5			O	O^8					4
OE127											0
OE128						O^8					1
OE129											0
OE130						O^8					1
OE131											0
Total	7	1	4	1	8	3	4	5	1	4	38

Superscript key:

1: Past continuous

2: Simple past

3: Present continuous

4: Simple present (of 'be')

5: Can

6: Second conditional

7: Third conditional

8: Demonstrative pronouns

Note: P122 was excluded from the analyses for the reasons explained in section 6.2.4.

Appendix 18: Vocabulary types reported as learned, improved or corrected

Standard dictionary abbreviations for parts of speech are used.

The superscripts' meanings are provided in the key below the table.

An empty cell means no report of learning, improvement or correction in that case.

Part. #	Vocabulary types (standard abbreviations for parts of speech used)										Individual total
	n.	adj.	v.	adv.	Fixed phrases	conj.	prep.	abbr.	Collocation	Difference between A & B	
W107			1^2		1						2
W108		1	$2+1^2$		1					1^5	6
W109	3		2		2						7
W110			2	2^3					1	1^5	6
W111	$4+1^1$	3	$1+1^2$	1^3	7				1		19
W112		1	2	1^3						1	5
W113	5	2	2								9
W114	4	1	1							1	7
W115	4	1	2	1^3	1				1	1^5	11
W116	2		1								3
W117		1	1^2		1					1^5	4
W118		1	1								2
W132	1	1	1	2^3	1				1	1	8
P119			3								3
P120	2								1		3
P121	1							1	1		3
P123			1								1
P124	1										1
P125	2	1							1		4

P133			2						1		3
P134									1		1
OE126	1	2	1[2]	1[4]		1					6
OE127	3										3
OE128	3+1[1]	2			1				1		8
OE129									1		1
OE130	2+1[1]	3			1						7
OE131	3		1		1		1		2		8
Total	44	20	29	8	17	1	1	1	13	7	**141**

Superscript key:

1: Compound noun

2: Phrasal verb

3: Adverb of manner

4: Adverb of place

5: The difference between ~ing and ~ed adjectives

Note: P122 was excluded from the analyses for the reasons explained in section 6.2.4.

Appendix 19: Spellings reported as corrected

The colour coding key is provided below the table.

* = words the spelling of which were reported as corrected by more than one student

Part. #	Spellings corrected								Individual total
W107	*mischief								1
W108	took	*mischief							2
W109									0
W110									0
W111	mouse	honey	person						3
W112	friend								1
W113	happen								1
W114									0
W115									0
W116									0
W117									0
W118	victim	parties							2
W132									0
P119	vocabulary	famous							2
P120	directly	*bouncy bouncy	*bathtub						3
P121	*vounce=>bouncy vounce=>bouncy								1
P123									0
P124									0
P125	*bouncy bouncy	*bathtub							2

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P133	conclusion	increase								2
P134	environmental environmental									1
OE126	*street	through	*girlie=>girly	straw hat	face	head	information		*air	8
OE127	organic	introduce	balance balance	beer	Turkey	side				6
OE128	various various	price	example	suitable	*air					5
OE129										0
OE130	*street	*girlie=>girly	example	States	piece	*air				6
OE131	vitamin	depends	cheap							3
								Total number of cases		**49**
								Number of different words		**40**

Key:

l / r substitution (*n=11*)

b /v substitution (*n=8*)

s / th substitution (*n=7*)

Note: P122 was excluded from the analyses for the reasons explained in section 6.2.4.

Appendix 20: Pronunciations reported as corrected

The colour coding key is provided below the table.

* = words the spelling of which were reported as corrected by more than one student

Part. #	Pronunciations corrected			Individual totals
W107				0
W108	can			1
W109				0
W110	prove prove			1
W111				0
W112	flooded			1
W113	Chernobyl Chernobyl	evacuation	accurate	3
W114				0
W115	sympathize	circumstances		2
W116				0
W117	french fries			1
W118	damages			1
W132				0
P119				0
P120				0
P121				0
P123				0
P124				0
P125				0
P133				0
P134				0

OE126	*States	*air		2
OE127				0
OE128	*States	*air		2
OE129				0
OE130	various various	thought	infomercial	3
OE131				0
		Total number of cases		17
		Number of different words		15

Key:

l / r substitution (*n=4*)

b /v substitution (*n=3*)

s / th substitution (*n=2*)

consonant – vowel pairing (*n=1*)

terminating vowel type (*n=2*)

Note: P122 was excluded from the analyses for the reasons explained in section 6.2.4.