

# **Doctoral Dissertation**

## **A Web-Based e-Portfolio System Supporting Japanese Undergraduate Students' Out-of-Class EFL Reading Practice and a Self-Determination Theory Approach to the Students' Intention**

(日本人大学生のクラス外 EFL 読解訓練を支援する web ベースの e ポートフォリオシステムと学習意欲への自己決定論に基づくアプローチ)

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**A Web-Based e-Portfolio System Supporting Japanese Undergraduate Students' Out-of-Class EFL Reading Practice and a Self-Determination Theory Approach to the Students' Intention**

A dissertation submitted in partial fulfillment of the requirements for the  
degree of Doctor of Philosophy  
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به نام خداوند جان آفرین

تقدیم به پدر و مادر عزیزم،  
اولین و بهترین معلمان زندگی ام

Dedicated to my dearest parents,  
who have been my first and best teachers

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## **Abstract**

Regardless of the importance of out-of-class language learning (OCLL), there is no specific field of study focusing on learning beyond the actual borders of the classroom. This study was an attempt to show the significance of the development of OCLL modes as the third mode of blended learning environments; it also tried to explain Japanese EFL undergraduate students' intention to continue OCLL through the framework of self-determination theory (SDT). To this end, two individual studies were conducted. A web-based e-portfolio system was developed as the OCLL mode, in particular, aiming for the enhancement of reading proficiency. Two hundred twelve Japanese EFL undergraduate students participated in the first study. Using a pretest-posttest controlled group design the effectiveness of the OCLL mode (the e-portfolio system) on the students' reading proficiency was investigated. In addition, an end of the term semi-structured interview sought the experimental group students' attitudes towards the effectiveness of the system.

The second study proposed and tested a model of the relationship between the motivation determinants introduced by SDT and the students' intention towards technology-enhanced OCLL as well as their actual OCLL achievements. The hypothesized model included three principal antecedents of perceived competence, perceived autonomy, and perceived relatedness. Path analysis was conducted to find the multivariate relations between the constructs in the model based on the collected data from 164 Japanese EFL students. The data were collected using an end-of-the-term online questionnaire.

The two studies resulted into the following findings. First, the web-based e-portfolio system could significantly improve the experimental group students' reading

proficiency compared to their own proficiency level at the beginning of the semester, and compared to the proficiency level of the comparison group students. The interview data demonstrated that the students emphasized on the importance of adequate instruction and support for using a new learning technology at the beginning stages. It was also identified that the biggest barrier to the students' OCLL was their lack of information about the available technologies and materials. More importantly, the students considered peer-feedback as the most challenging and less useful aspect of OCLL in the e-portfolio system. Finally, it was indicated that the majority of the students intended to continue OCLL mainly because of their observable TOEFL ITP<sup>®</sup> score progress. Furthermore, the findings of the model indicated the positive effect of motivation determinants (competence, autonomy, and relatedness) on the students' intention to continue OCLL, among which perceived competence was the most significant predictor. Additionally, the model indicated that perceived relatedness could not influence the students' OCLL achievements which also reflected the students' preference for teacher-supported language learning to peer-supported learning.

## **Table of Contents**

Acknowledgements	I
Abstract	II
List of Tables	VII
List of Figures	VIII
List of Abbreviations	IX

### **Chapter 1: Introduction**

1.1. Overview	2
1.2. Statement of the Problem and Purpose of the Study	4
1.3. Significance of the Study	6
1.4. Research Questions and Hypotheses	7
1.5. Definitions of Key Terms	8
1.5.1. Electronic Portfolio (e-portfolio)	8
1.5.2. Out-of-class Language Learning (OCLL)	8
1.5.3. Out-of-class Reading	9
1.5.4. Self-determination Theory (SDT)	10
1.5.5. Intention	10
1.6. Overview of the Chapters	11

### **Chapter 2: Review of the related literature**

2.1. Introduction	13
2.2. Out-of-class Language Learning (OCLL)	14
2.2.1 Out-of-class Reading Practice	22
2.3. e-portfolio as Personal Learning Environments (PLEs)	26
2.3.1 Online Interactions (expert- and peer-feedback)	30
2.4. Motivation and Intention	36
2.4.1. Self-determination Theory (SDT)	37



## **Chapter 3: Study 1**

3.1. Introduction	43
3.2. Methodology	45
3.2.1. Participants	45
3.2.2. Instruments and Materials	45
3.2.2.1. <i>Quantitative Phase</i>	45
3.2.2.2. <i>Qualitative Phase</i>	47
3.2.2.3. <i>Web-based e-portfolio System</i>	48
3.2.3. Design	56
3.2.4. Procedure	56
3.2.5. Data Analysis	57
3.3. Results	59
3.3.1. Analysis of the Results of the First Research Question	59
3.3.1.1. <i>Experimental Group TOEFL ITP® Pre and Post-test Scores</i>	59
3.3.1.2. <i>Experimental and Comparison Group Gain Scores</i>	61
3.3.2. Analysis of the Results of the Second Research Question	65
3.3.2.1. <i>Describing the Results of the Interview Questions</i>	65
3.4. Discussion	82

## **Chapter 4: Study 2**

4.1. Introduction	92
4.1.1. Research Model	93
4.2. Methodology	96
4.2.1. Participants	96
4.2.2. Instruments and Material	96
4.2.2.1. <i>Online Questionnaire</i>	96
4.2.2.2. <i>Web-based e-portfolio System</i>	98
4.2.3. Design	98
4.2.4. Procedure	98

4.2.5. Data Analysis	99
4.3. Results	100
4.4. Discussion	104

## **Chapter 5: conclusions**

5.1. Overview	110
5.2. Conclusions	112
5.3. Pedagogical Implications	116
5.4. Limitations and Suggestions for further research	119

## **References** 121

## **Appendices**

<b>Appendix A.</b> Semi-structured interview questions (study 1)	135
<b>Appendix B.</b> A sample of the instructor' reflection board, Week 4	136
<b>Appendix C.</b> Interpretation of the Cambridge English language test scores according to CEFR	137
<b>Appendix D.</b> Weekly self-assessment sheet / Individual goal setting and scoresheet	138
<b>Appendix E.</b> Group A webpage (links to the group A students' personal pages on the system) / A sample of a students' personal webpage on the system	140
<b>Appendix F.</b> Personal introduction form according to the European Language Portfolio (ELP)	142
<b>Appendix G.</b> Samples of the content of the students' e-portfolios in Google Drive	144
<b>Appendix H.</b> Online questionnaire items (study 2)	147

## List of Tables

<b>Table 3.1.</b> One-Sample K-S Test of Reading Pre-test and post-test of the experimental group	60
<b>Table 3.2.</b> The descriptive statistics of pre-test and post-test scores	60
<b>Table 3.3.</b> Paired samples <i>t</i> -test of the pre-test and post-test scores	61
<b>Table 3.4.</b> One-Sample K-S Test of Reading Pre-test, experimental and comparison group	62
<b>Table 3.5.</b> The descriptive statistics of experimental and comparison group pre-test scores	62
<b>Table 3.6.</b> Independent samples <i>t</i> -test of the reading pre-test scores	63
<b>Table 3.7.</b> The descriptive statistics of experimental and comparison group gain scores	64
<b>Table 3.8.</b> Independent samples <i>t</i> -test of the reading gain scores	64
<b>Table 3.9.</b> Themes of the First Interview Question	66
<b>Table 3.10.</b> Themes of the Second Interview Question	68
<b>Table 3.11.</b> Themes of the Third Interview Question	70
<b>Table 3.12.</b> Themes of the Fourth Interview Question	72
<b>Table 3.13.</b> Analysis of the students' interactions	74
<b>Table 3.14.</b> Themes of the Fifth Interview Question	79
<b>Table 3.15.</b> Themes of the Sixth Interview Question	81
<b>Table 4.1.</b> The descriptive statistics of the measurement constructs	102
<b>Table 4.2.</b> Correlation matrix and average variance extracted	103

## **List of Figures**

<b>Figure 3.1.</b> Homepage of the web-based e-portfolio system	49
<b>Figure 3.2.</b> Instructor and peer-feedback process	55
<b>Figure. 4.1.</b> Hypothesized model of the research	95
<b>Figure. 4.2.</b> Final structural model (standardized path coefficients)	103

## **List of Abbreviations**

<b>CALL</b>	Computer-assisted language learning
<b>CEFR</b>	Common European Framework of Reference for Languages
<b>EFL</b>	English as a foreign language
<b>ICT</b>	Information and communication technology
<b>LMS</b>	Learning management system
<b>OCLL</b>	Out-of-class language learning
<b>PLE</b>	Personal learning environment
<b>SDT</b>	Self-determination theory
<b>TOEIC</b>	Test of English for International Communication
<b>TOEFL ITP</b>	Test of English as a Foreign Language Institutional testing program
<b>VLE</b>	Virtual learning environment

# **Chapter 1:**

## *Introduction*

## **1.1. Overview**

The rapidly growing interest in technology-based learning contexts among EFL teachers and learners has resulted in the combination of traditional classrooms with the vast use of computerized teaching and learning methods known as blended learning environments. As noted by Neumeier (2005), blended learning environments are normally composed of two modes of delivery: face-to-face (F2F) and computer assisted language learning (CALL). However, these two modes are combined within the class and lack the effective out-of-class language learning (OCLL) opportunities (Benson, 2001; Borrero & Yeh, 2010), especially in EFL learning contexts where learners have very little or no exposure to the target language beyond the class.

According to Richards (2015), “there are two important dimensions to successful second language learning: what goes on inside the classroom and what goes on outside of the classroom” (p.1). Findings from previous studies provide evidence that out-of-class learning has a significant role in language learning process (Lai & Gu, 2011; Pearson, 2004; Pickard, 1996), and it enhances learning outcomes in multiple ways (Chang, 2007; Inozu, Sahinkarakas, & Yumru, 2010; Sundqvist, 2011). Since much of effective learning can happen free of the classroom boundaries through informal learning contexts, learning should not be restricted to the formal classroom contexts (Chatti et al., 2012), and technology should be employed in a way to support the optimization of both inside and beyond the classroom learning environments (Chapelle, 2010; Zhao & Lai, 2007). Therefore, Whittaker (2013) emphasizes on defining blended learning environments as the combination of three major modes: F2F, CALL, and self-study mode which occurs outside of the actual classroom.

The technology-enhanced OCLL requires teachers' continuous and accurate support. There are various kinds of information and communication technology (ICT) applicable to OCLL. However, some technologies may not be as beneficial as others, students may not have enough information about the available technologies, and they may lack the required skill to implement those technologies (Lai & Gu, 2011). Accordingly, it is important that in addition to the development of inside class blended learning environments, teachers introduce or design OCLL contexts appropriate to the learners' basic needs and skills. This study tries to explain the successful implementation of a technology-based OCLL mode in an EFL blended learning context.

On the other hand, since OCLL takes place beyond the actual classroom and it is not easily observable or assessable (Benson & Reinders, 2011; Stevens & Shield, 2010), students are not willing to continue learning. Therefore, learners' intention to continue technology-enhanced OCLL learning becomes a crucial issue (Lai, Li, & Wang, 2017; Lee & Lehto, 2013; Mobarhan, Majidi & Abdul Rahman, 2014; Reinders, 2014; Richards, 2015). Davis (1989) states that learners' intention for an activity reflects the extent to which they intend to do that activity which is normally followed by the occurrence of the action.

Based on the cognitive theories of motivation and action, according to Deci (1975), being motivated to act is equal to having an intention and desire to engage in an action. Due to the strong relationship between the learners' motivation and their intention for an activity, motivation is considered as the key to increasing learners' intention for OCLL (Deci, Vallerand, Pelletier, & Ryan, 1991). Although so far several motivation theories have been proposed by different researchers, the self-



determination theory (SDT, Deci & Ryan, 1985) is one of the most appropriate theories for OCLL. The self-determination theory refers to the individual's ability to choose how to satisfy their needs and perform actions that need some degree of self-regulation (Deci & Ryan, 1985). Therefore, since OCLL is mainly influenced by self-determined behaviors and self-regulated actions (Mobarhan et al., 2014; Reinders, 2014), this study tries to investigate how this theory applies to and explains Japanese EFL students' intention to continue technology-enhanced OCLL.

## **1.2. Statement of the Problem and Purpose of the Study**

As stated in the previous section, one of the crucial issues in blended learning environments is lack of teachers' attention to the importance of the self-study contexts. In Japan, the setting of the present research, in spite of numerous CALL related studies there is still a need to investigate and enhance Japanese students' language learning beyond the borders of the actual classroom (Stockwell, 2013; Thomas, 2017).

Although Japan is ranked among the top ten countries in terms of ICT access and usage and most of the universities are equipped with well-designed CALL classrooms, Japanese students' digital literacy lag behind those of other developed countries. As stated in Cote and Milliner (2016), "the Organization for Economic Co-operation and Development (OECD, 2015) released a critical statement on the literacy of Japanese youth, noting that 25% (age 16-29) lack basic computer skills" (p.127). These findings clearly reflect the significant role of teachers to support students with using technology for learning. It is believed that Japanese students use ICT excessively in their everyday life, but they can hardly implement their daily life ICT skills to make

use of technology for learning (Cote & Milliner, 2016; Doyle & Parrish, 2012; Gobel & Kano, 2014; Lockley & Promnitz-Hayashi, 2012). Lack of adequate ICT engagement in high school education results in very low confidence for using digital technologies upon entering universities, which in turn strongly affects the students' independent use of technology for language learning (Doyle & Parrish, 2012; Lockley & Promnitz-Hayashi, 2012).

Moreover, Japanese students have very little intention to continue OCLL. Fukuda and Yoshida (2012) found that Japanese students are not motivated enough to expand their out-of-class language learning time which ranges only between zero to an hour a week. Accordingly, EFL teachers and instructors need to find the effective ways to boost students' technology-enhanced OCLL by providing appropriate resources in addition to enhancing the students' intention to continue OCLL. In this regard, this study first introduces a web-based e-portfolio system developed and implemented as the OCLL mode of the blended learning environment, which specifically focused on the reading skill, and then, examines the effectiveness of this system. Finally, the study tests a hypothesized model of the effect of motivation determinants defined by SDT (i.e., perceived competence, perceived autonomy, perceived relatedness) on the students' intention to continue OCLL. The model aims to investigate how the satisfaction of the three motivation determinants predict the students' intention towards technology-based OCLL, as well as their actual OCLL achievements, using the successfully implemented web-based e-portfolio system.

### **1.3. Significance of the Study**

This study is conducted to enrich researchers' and teachers' understanding of the importance of designing OCLL contexts as one of the indispensable parts of the blended learning environments (Hall, 2009; Lai & Gu, 2011; Lai, Zhu, & Gong, 2015; Whittaker, 2013). Limited exposure to the target language inside the classroom highlights the importance of providing learners with additional teacher-supported learning chances beyond the classroom (Barrs, 2012; Richardson, 2010). Although the use of technology inside the classroom is effective for improving learning outcomes, limited learning opportunities in the class add to the significance of learning beyond the classroom (Chapelle, 2010; Lai, 2015; Zhao & Lai, 2007). In line with the few number of previous studies (Chang, 2007; Inozu et al., 2010; Lai & Gu, 2011; Pearson, 2004), this empirical study also tries to put emphasis on the significant influence of well-organized language practice beyond the classroom.

The successfully implemented web-based e-portfolio system in this study represents an example of the use of free and user-friendly technology for learning. Recently many language instructors benefit from personal learning environments (PLEs) such as e-portfolios, wikis, or blogs to improve the quality of their teaching contexts. However, despite the numerous supportive features of e-portfolios for second language learning both inside and outside of the class, very few studies investigated the effectiveness of e-portfolio as a tool to support OCLL (Barrett, 2006; Chau & Cheng, 2010; Gerbic, Lewis, & Amin, 2011).

Furthermore, despite the effectiveness of motivational factors on the students' intention towards learning (Roca & Gagné, 2008), SDT as one of the inclusive motivation theories has not received enough empirical scrutiny within out-of-class

learning contexts (Chen & Jang, 2010; Mobarhan et al., 2014). The determinants of SDT (i.e., competence, autonomy, and relatedness) highly correspond to the features of online learning environments such as challenges for learning technical skills, flexible learning, and computer mediated communication and social interaction (Chen & Jang, 2010). Therefore, it is hoped that examining this theory in a technology-enhanced OCLL context will shed light on the importance of the fulfillment of motivational needs.

#### **1.4. Research Questions**

In order to conduct the present study, the following three research questions were imposed at the beginning:

1. Is there any significant difference between the proficiency of the students who practice reading outside of the class through the web-based e-portfolio system and that of those who have out-of-class reading practice without the e-portfolio system?
2. What are the students' attitudes towards the effectiveness of the web-based e-portfolio system with regards to the different aspects of the system such as content of the system, peer-feedback, and post-reading activities?
3. Do the determinants of SDT (i.e., perceived competence, perceived autonomy, and perceived relatedness) predict Japanese EFL students' intention to continue OCLL using the web-bases e-portfolio system and their actual achievements?

## **1.5. Definition of Key Terms**

### **1.5.1. Electronic Portfolio (e-portfolio)**

According to Reinders (2014), PLEs enhance lifelong learning by going beyond the formal academic environments. He introduces different tools that may be used for creating PLEs such as e-portfolios, communication tools (wiki), and social networking tools (Facebook). Among these tools, e-portfolios are very useful to connect out of class learning achievements with the formal inside class progress (Goldsmith, 2007; Barrett, 2006). Abrami and Barrett (2005) define an e-portfolio as “a digital container capable of storing visual and auditory content including text, images, video and sound” (p.1). They emphasize the usefulness of e-portfolios to change teacher-directed instructions to student-directed learning methods in which students are as active agents taking control of their own learning.

In the present study, a web-based e-portfolio system was developed with the integration of Google Drive as the students’ PLEs and Google Sites as a collaborative virtual learning environment (VLE). The system is explained in details in section 3.2.2.3. Due to the accordance of OCLL with inside class teaching curriculum, reading skill enhancement was particularly chosen as the target of the system. However, this system can also be implemented for the practice of the other language learning skills and sub-skills as well.

### **1.5.2. Out-of-class Language Learning (OCLL)**

Although this study specifically focuses on out-of-class reading practice, it is necessary to first define the general term of the technology-enhanced OCLL. So far,

the scope of learning beyond the actual classroom is referred to by several terms such as ‘non-formal learning’, ‘informal learning’, ‘self-instructed learning’, and ‘naturalistic learning’ with an identical overall idea, but different in some minor aspects (Benson & Reinders, 2011). However, in this study the term OCLL is defined as the students’ intentional and autonomous use of ICT beyond the actual classroom in favor of language learning. We concentrate on the intentional OCLL because unintentional learning from daily life activities can hardly take place in EFL contexts.

### **1.5.3. Out-of-class Reading**

Day and Robb (2015) believe that one of the ideal OCLL opportunities is reading and extensive reading has the most similar characteristics to out-of-class reading practice to which West (1995) refers as ‘supplementary reading’ (p. 26). Day and Bamford (2002) introduced ten principles for extensive reading and Day and Robb (2015) state that five of these principles are appropriate for out-of-class reading practice (see section 2.2.1). Despite the different approaches to extensive reading, Day (2015) examined the studies conducted on extensive reading and he emphasized that “there is no single approach to the practice of extensive reading” (p. 296). Accordingly, due to the significant effect of students’ engagement with the text (Rivas, 1999), in this study out-of-class reading practice is conducted based on the five relevant principles of extensive reading introduced by Day and Bamford (2002), in addition to the post-reading activity approach to help the students actively interact with the texts. The post-reading activities include writing summaries, listing newly learned words, and making questions (Rivas, 1999).

#### **1.5.4. Self-determination Theory**

Self-determination theory refers to the individual's ability to choose how to satisfy their needs and perform actions that need some degree of self-regulation (Deci & Ryan, 1985). This theory focuses on competence, autonomy, and relatedness as the three basic psychological human needs that can facilitate intrinsic motivation. The need for competence is the individual's need to feel capable of effective performance and achieving one's goals. The need for autonomy implies the intention to feel free to choose and control one's own actions. Finally, the need for relatedness is to feel connected to others through proper interaction and cooperation (Deci & Ryan, 1985; Vallerand, 1997).

#### **1.5.5. Intention**

In technology-based environments, Davis (1989) refers to the fundamental issue of the users' behavioral intention to continue using a system. He states that the intention for an activity is the extent to which the users intend to do that activity which is normally followed by the occurrence of the actual action. In other words, if the students intend to continue using a system, then the system is likely to be used. Therefore, this study tries to investigate if the motivation determinants of SDT can predict the students' intention to continue using the web-based e-portfolio system for OCLL (as a real-use experience of technology) in addition to their actual usage of the system.

## **1.6. Overview of the Chapters**

This dissertation consists of five chapters. Chapter one provides an overall picture of the dissertation with introductory information about the purpose and objectives of the study. Chapter two reviews previous related studies in three major sections including a) out-of-class language learning (with the subsection of out-of-class reading practice), b) electronic portfolios as personal learning environments, and c) motivation and intention (based on the self-determination theory approach). Chapter three explains the first study conducted to find the answers to the research question one and two. These questions examined the importance of OCLL through the implementation of the web-based e-portfolio system that was developed to support Japanese EFL undergraduate students' reading proficiency. Chapter four describes the second study of this dissertation which aimed to find the answer to the research question three. This chapter focuses on a self-determination theory approach to technology-enhanced OCLL intention through testing a hypothesized model. Chapter five is the concluding section in which the results of the two studies are brought together and practical and pedagogical implications are suggested. The limitations of the study and suggestions for the further research in technology enhanced OCLL contexts are also referred to in this chapter.



# **Chapter 2:**

## *Review of Literature*

## **2.1. Introduction**

Following the recent technological advancements, language learning opportunities can also be maximized by incorporating learning technologies into the teaching contexts both inside and outside of the classroom (Chapelle, 2010; Zhao & Lai, 2007). This incorporation leads to the creation of blended learning environments in which the traditional face-to-face classrooms are combined with computer-assisted learning environments (Neumeier, 2005). However, even though many EFL teachers try to use technological tools in their teaching contexts and benefit from the effectiveness of information and communication technologies (ICTs), this attempt is mostly restricted to the inside classrooms and technology is not efficiently implemented in designing teacher-supported learning contexts beyond the classroom (Stockwell, 2013; Whittaker, 2013).

Although both inside and outside of the classroom are the two important and influential scopes of successful language learning, out-of-class language learning (OCLL) has received very little attention (Benson, 2011b; Richards, 2015). While there are thousands of published studies focusing on what goes on inside the technologically-equipped language classrooms, very few studies are devoted to the investigation of what goes on beyond the classroom (Benson, 2011; Richards, 2015; Stockwell, 2013). As indicated in many recent studies, the new technology offers several resources to enhance self-regulated language learning beyond the classroom (Nunan & Richards, 2015; Reinders, 2014), and successful language learners are usually the ones who search and take advantage of OCLL opportunities (Borrero & Yeh, 2010; Lai et al., 2015). Consequently, the blended learning environments should not only be defined as the combination of face-to-face and CALL environments, but

they rather need to have a third component that covers language learning outside of the classroom as well.

## **2.2. Out-of-class Language Learning (OCLL)**

Benson (2011b), an advocate of OCLL, believes that regardless of the importance of OCLL, there is no specific field of study focusing on learning beyond the actual borders of the classroom. So far researchers have used several terms to refer to the scope of learning beyond the classroom such as ‘non-formal learning’, ‘informal learning’, ‘self-instructed learning’, ‘naturalistic learning’, etc. (Benson & Reinders, 2011). These terms follow an identical overall idea about OCLL, but they differ in some minor aspects, therefore, there is no straightforward definition of OCLL. Benson (2011b) believes that language learning researchers have an almost clear definition of a language learning classroom, but defining the extended scope of out of class language learning first needs identifying four major dimensions: ‘location’, ‘formality’, ‘pedagogy’, and ‘locus of control’.

- **Location**

As indicated by the term, ‘location’ or ‘setting’ of the OCLL refers to the places where language learning takes place, including both inside or outside of the school (Benson, 2011b). It is believed that learning beyond the classroom refers to the achievements accomplished at any time and in any place, regardless of the conventional classroom borders (Benson, 2001; Hyland, 2004). Therefore, locations of OCLL include computer labs, libraries, home, cafés, virtual spaces on the internet, restaurants, etc.

- **Formality**

The term ‘formality’ distinguishes between ‘formal’, ‘non-formal’ and ‘informal’ language learning. Formal learning is typically provided by educational institutions with specific and identified objectives and evaluations (Benson, 2011b; Stevens & Shield, 2010), however, non-formal and informal learning refer to non-institutional training and education. Stevens and Shield (2010) argued the distinction between non-formal and informal learning in terms of learning objectives and learning intention. They state that non-formal learning often follows certain objectives and it is intentional, yet informal learning does not follow any identified objectives and it may be intentional and unintentional. Unlike the formal learning, non-formal and informal learning include no certification.

- **Pedagogy**

Benson (2011b) refers to the term instruction as a specific type of pedagogy which is implemented differently in learning inside and outside of the classroom. Benson (2011a) classified learning beyond the classroom into three types of learning: a) self-instruction learning (i.e., learners deliberately plan to learn a language), b) naturalistic learning (i.e., learners learn a language while they are engaged in an activity without a specific focus on learning), and c) self-directed naturalistic learning (i.e., learners intentionally engage in activities to learn a language, however after the engagement their intention would change to the enjoyment of the activity rather than focusing on language learning). In this view, self-instructed learning takes place through the use of specifically developed materials or activities for language learning

which act as the instructors, while naturalistic learning involves no specific materials, instruction, and intention for learning. Therefore, it is the use of materials and activities having ‘instructional content’ that identifies the distinction between self-instructed learning and naturalistic learning.

For example, Leese (2009) in a study focused on engaging 1st-year undergraduate students to do out of class activities between their taught sessions through the use of a virtual learning environment (VLE). The main objective of the study was enhancing collaborative learning in groups and enabling students to connect between the face-to-face classroom sessions. Students were supposed to collaboratively do certain tasks and post their assignments on the virtual space to receive the teachers’ feedback. Then, on the following face-to-face session, they taught the assignments to the class and explained how they completed them. The students’ perceptions towards this type of instruction was collected through a questionnaire, focus groups, and module feedback forms. The findings indicated that students had positive attitudes towards collaborative learning, and they had improved in using technology and group work. The average of their final scores also showed a significant progress which added to the effectiveness of the treatment.

Fagerlund (2011) argues that different types of activities may result in different outcomes and beliefs about OCLL. In her study, the comparison between the Finnish learners’ English and Swedish OCLL activities revealed that, in terms of English language, the learners found OCLL activities helpful and effective, both for productive and receptive skills. However, they mostly had out-of-class Swedish language learning activities for the receptive skills and they did not find them as effective as the English activities. In another study, Inozu et al. (2010) investigated Turkish students’ nature of

out-of-class language learning experiences and their contributions to learning outcomes and self-directed learning developments. The findings indicated that students found out-of-class activities mostly useful for the improvement of their receptive skills of reading and listening rather than productive skills of speaking and writing.

In terms of OCLL pedagogy and activities, Doyle and Parrish (2012) also conducted a study to find Japanese students' ideas about good and bad ways of learning English outside of the class. The findings indicated that the students had very little preference for using electronic devices for learning English beyond the classroom. In addition, the students preferred 'traditional ways' of learning English such as studying for TOEFL and TOEIC tests rather than showing 'creativity and resourcefulness' in their ways of learning such as making an English conversation (p. 200).

- **Locus of control**

The third domain of OCLL that needs investigation is locus of control. Locus of control refers to the degree of autonomy in language learning that is identified by some terms such as independent learning, autonomous learning, self-directed learning, etc. (Benson, 2011b). Even though the concept of learner autonomy is mostly associated with OCLL contexts, teachers also attend to the improvement of autonomous learning inside the classrooms. The main reason is that the concept of autonomy does not refer to taking all the learning responsibilities and making all the decisions for language learning, but it is focusing on the ability to make the major decisions. In other words, autonomy refers to the learners' ability to take responsibility of their own learning and control their own actions (Vallerand, 1997).

Knowles (1975) refers to this autonomy by the term self-directed learning. He defines self-directed learning as a “process in which individuals take the initiative, with or without the help from others, in diagnosing their learning needs, formulating goals, identifying human and material resources, choosing and implementing appropriate learning strategies, and evaluating learning outcomes” (p. 18). Moreover, Hall (2009) refers to self-directed learning occurring out of the traditional educational context as the informal education. He argues that informal learning can be empowered by technology to help learners identify themselves in the virtual space and create personalized learning environments. Due to the significant importance of self-directed learning in OCLL contexts, it has been examined in several studies.

For instance, the factors affecting language learners’ self-directed use of technology for OCLL in Hong Kong were examined in a study by Lai (2013). The results of the research survey showed that attitudinal factors highly influenced the students’ use of technology (i.e., usefulness of the technology, language learning motivation, and educational compatibility). It was also indicated that computer self-efficacy, self-regulation, and facilitating conditions were influential factors on the learners’ use of technology mainly through the mediation of perceived usefulness and compatibility. However, the author believes that attitudinal factors are the most effective factors in enhancing learners’ self-directed use of technology.

In another study conducted by Lai and Gu (2011), Hong Kong undergraduate students' out-of-class use of technology to self-regulate their language learning was examined. The findings of the survey reflected that although there was a huge diversity between the students’ use of technology outside of the classroom, they mostly used technology for goal commitment regulation, resource regulation, affection regulation,

and culture learning regulation (e.g., to sustain their motivation, to find authentic materials, to create interesting learning experiences, and to expand cultural understandings). However, the students were not likely to use technology for metacognition and social connection regulation (e.g., self-assessment and monitoring their own progress, and expanding their social networks). In the follow-up interviews, it was found that there were some factors that influenced students' use of technology to self-regulate their learning such as a) students' learning background (e.g., preference to use physical environments rather than virtual ones), b) students' language learning beliefs (e.g., being aware of the importance of learning languages), c) students' language proficiency level (e.g., high proficient students showed more interest in expanding their social connections and using technology to self-regulate their learning), and d) students' information about the useful materials and resources. It was revealed that students' lack of information about the available technologies and their potentials for learning was the most important factor that prevents the students from using technology to self-regulate their out-of-class language learning. Accordingly, it can be concluded that teachers' support has a significant role in the students' use of technology for OCLL.

In the study conducted by Inozu et al. (2010), even though the contribution of Turkish students' out-of-class language learning experiences to their self-directed learning development is not fully examined, the authors believed that the students did not seem to be able to initiate their work and take the responsibility of their own learning. Similar to the previous study, Inozu et al. argued that the students rather tended to rely on their teachers to support their OCLL. Accordingly, they also stressed the significant role of teachers to support OCLL developments. It should be



emphasized that, when it comes to autonomous learning, there is sometimes a misunderstanding that autonomous learning means individual learning in isolation. However, it is the learners' essential need to be guided and supported regularly while they are the ones who make the major decisions about learning (Benson, 2011a; Doyle & Parrish, 2012; Lockley & Promnitz-Hayashi, 2012; Thanasoulas, 2000).

In Japan, the same setting as the present study, Ishikawa et al. (2007) conducted a study in an EFL blended learning environment, in which both inside and outside of the classroom language learning were integrated in a single virtual learning environment. Self-evaluation system was implemented with the aim of improving the students' TOEIC test scores and their self-regulated learning. The data were collected from 29 Japanese students through TOEIC listening and reading scores, an Online Self-Regulated Learning (SRL) Questionnaire at the beginning and end of the term, and interviews. The SRL questionnaire included six constructs: a) goal settings, b) environment structuring, c) task strategies, d) time management, e) help seeking, and f) self-evaluation. The findings of the TOEIC test showed the significant improvement of the students. The results of the questionnaire and interviews indicated that among the six constructs of SRL, a) goal settings, b) environment structuring, d) time management, and f) self-evaluation showed a significant improvement whereas c) task strategies and e) help seeking showed no significant change. Even though the two constructs remained unchanged, the overall results indicated that self-evaluation system had been useful for enhancing the learners' score and SRL.

In addition to the previous study, considering Japanese students' autonomy, Tokuda, Ohba, Sakaguchi, Seo, and White (2015) conducted a study to examine learner autonomy, foreign language learning motivation, and enhancement of

intercultural understanding. The study was conducted through an extra-curricular program named ‘lunch time English’. This weekly program aimed to improve the students’ English language proficiency and intercultural awareness. The data were collected through a questionnaire from 40 Japanese and seven international students. The findings indicated that the program could successfully increase Japanese students’ motivation to learn English as well as their proficiency level (TOEFL ITP® test scores). Japanese students’ desire to take part in communication was enhanced because, as Kitazume (2007) states, Japanese students feel less shy to communicate when they are engaged in fun activities (cited in Tokuda et al., 2015). It was also indicated that both international and Japanese students’ interest in intercultural issues had grown. The researchers believe that extra-curricular programs can help the learners improve their language learning skills and link inside class learnings to the out of class contexts.

In addition to the advantages of OCLL for the improvement of learning outcomes and self-directed learning, insufficient out-of-class language practice can be the main obstruction to learning goals. Due to the very low out-of-class study time in Japan, which is between zero to an hour weekly, Fukuda and Yoshida (2012) conducted a study to find the influential factors for the expansion of the OCLL time. They investigated 20 Japanese students’ OCLL time and course satisfaction. They compared this experimental group who were orally encouraged to do OCLL with other groups who received extrinsic motivators such as assignments and quizzes. They collected data through university course evaluations, weekly self-reports, and a questionnaire focusing on OCLL time, the materials, and their motivators for the study. The findings indicated the significant rise in the students’ OCLL time. It was indicated that the four influential factors that increased OCLL time were as follows: clear course

aims, strong student–teacher relationships, a non-threatening classroom environment, and interactive classroom procedures.

Reviewing the theoretical aspects and practical studies of language learning beyond the borders of the actual classroom reveals that it is not easy to reach a specific definition for OCLL. As it was mentioned at the beginning of this section, there are several terms that refer to the same scope of OCLL, but they propose different definitions for this scope. Unlike the restricted inside classroom settings, there is a wide range of out-of-class language learning settings which make it nearly impossible to conclude with a straightforward theory for OCLL (Benson & Reinders, 2011). The four important dimensions of ‘location’, ‘formality’, ‘pedagogy’, and ‘locus of control’ introduced by Benson & Reinders (2011) indicate how the studies conducted beyond the actual classrooms may have distinctive features and, more importantly, have their own context-based definition of OCLL. Accordingly, this study also provides its own definition of OCLL, which is the students’ intentional and autonomous use of ICT (i.e., the web-based e-portfolio system in this study) beyond the actual classroom in favor of language learning. Moreover, it is worth mentioning that due to the importance of the needs-based practices, this study specifically concentrated on the enhancement of the students’ reading proficiency through out-of-class reading practice.

### **2.2.1. Out-of-class Reading Practice**

Among the four main language learning skills (i.e., reading, writing, speaking, and listening), reading is one of the most ideal ways of independent language learning (Day & Robb, 2015). According to Nation (2009), reading can either be the main learning goal in itself or help accomplishing other language learning goals. Concerning

reading as the main goal, it can help learners enjoy and extend their general knowledge in different areas. However, learning new grammar and vocabulary, or reviewing previously learned grammar and vocabulary, can change reading into a supplementary activity to achieve other language learning goals. Furthermore, Grabe (2009) believes that reading may be done for different academic purposes such as a) searching for information (through scanning and skimming), b) quick understanding (through skimming), c) learning, d) integrating information, e) evaluating information, and f) entertainment and general comprehension.

Thus far there have been several approaches to the practice of reading. Among the different types of reading practice, extensive reading has the most similar characteristics to the out-of-class reading practice, which West (1995) refers to as ‘supplementary reading’ (p. 26). Due to the highly motivating features of extensive reading compared to text-book based reading instruction inside the classroom (Day & Bamford, 1998; Guthrie, Wigfield, & Perencevich, 2004), this type of reading can also be a reinforcement for students’ motivation to continue OCLL.

After Williams (1986) developed the ten principles of intensive reading, Day and Bamford (1998, 2002) introduced the following ten principles related to foreign language reading in general and extensive reading in particular:

1. The reading material is easy;
2. A variety of reading material on a wide range of topics is available;
3. Learners choose what they want to read;
4. Learners read as much as possible;
5. The purpose of reading is usually related to pleasure, information and general understanding;

6. Reading is its own reward;
7. Reading speed is usually faster rather than slower;
8. Reading is individual and silent;
9. Teachers orient and guide their students; and
10. The teacher is a role model of a reader. (Day & Bamford, 2002, pp. 137–141)

Applying the aforementioned principles to out-of-class reading practice, Day and Robb (2015) believe that only five principles (i.e., principles 1, 2, 3, 4, & 7) are the most appropriate to this area.

Examining the studies conducted on extensive reading, despite the different approaches to this type of reading, Day (2015) states that “there is no single approach to the practice of extensive reading” (p. 296). Furthermore, Peachey (2013) argues that “passive reading or viewing materials that require no action, interaction or reflection soon tire online learners and do not lead to deeper engagement or learning” (p.7). Therefore, an effective way to improve reading achievements is its integration with other skills such as writing, through post-reading activities.

According to Rivas (1999), “post-reading phase helps learners to consolidate what they have read and, at the same time, aims to relate the text to the learners’ experience, knowledge, and opinions” (p.18). Therefore, some activities such as writing summaries, listing newly learned words, making questions, describing information, and having discussions with classmates after reading a text help students actively interact with the texts and relate their reading practice to the writing skill (Barnett, 1989; Lyutaya, 2011; Rivas, 1999).

One of the closest studies to the approach taken in this study is Lyutaya's extensive reading program conducted in 2011. She combined extensive reading with writing tasks through using a "reading log (also known as a reading journal, a response journal, or a reading diary) for pre-, during-, and post-reading activities" (p.27). In this program the similar principles as recommended by Day and Bamford (2002) were taken into consideration. The participating students chose among a wide range of materials with the appropriate level of difficulty. They created a community of readers and kept their personal reading logs. In the reading logs they kept a record of what they read, expressed their reactions towards the passages, kept a record of different sorts of activities including, writing summaries, making a poster of the passage, writing down comments, questions and answers, etc. (Lyutaya, 2011). The findings revealed that how the integration of reading and writing skills could help the students better understand the nature of reading as well as the English language in general.

Lyutaya (2011) argues that because of the relationship between reading and writing skills and the common features such as "awareness of the composition process, discourse conventions, and rhetorical elements that make up literary texts" (p. 29), these two language skills can be supplementary to each other. Accordingly, due to the significant effect of students' engagement with the text through the writing skill, in this study, the out-of-class reading practice was conducted based on the five relevant principles of extensive reading introduced by Day and Bamford (2002) in addition to the post-reading activity approach.

### **2.3. e-portfolios as Personal Learning Environments (PLEs)**

The development of the recent technological tools (i.e., web 2.0 technologies) has changed learners from being only the passive consumers of information to becoming the active creators of the knowledge themselves (Dabbagh & Kitsantas, 2011; McGloughlin & Lee, 2010; Liew & Kang, 2014). Current trends in the field of foreign/second language learning reveal that the teacher-centered environments are changing to the more student-centered environments. Although previously higher education was mainly based on the institutionally-organized platforms such as learning management systems (LMS), or virtual learning environments (VLEs), teachers recently try to direct the learners to the more flexible and independent environments like personal learning environments (PLEs) (Liew & Kang, 2014; Reinders, 2014).

Dabbagh and Kitsantas (2011) believe that PLEs have appropriate features that enable integrating formal institutional learning to informal learning beyond the class and support self-regulated learning. Reinders (2014) argues the difference between PLEs and VLEs. He believes that although the two terms are used across different contexts and sometimes interchangeably, VLEs are more teacher-supported and institution-focused environments that are mainly used to deliver courses and act as complements to the PLEs. He believes that the efficient integration of VLEs and PLEs results in transferring learners from VLEs to continue autonomous learning using their own PLEs.

According to Reinders (2014), using PLEs is one of the effective ways to support students' autonomy and prepare them for life-long self-regulated language learning. He introduces different tools that can be used for creating PLEs such as e-

portfolios, communication tools (wiki), social networking tools (Facebook), etc. Among those introduced tools, the features of the e-portfolios make them useful for combining out-of-class learning achievements with the formal inside-class progress (Goldsmith, 2007; Barrett, 2006). According to Batson (2002) “Electronic portfolios have a greater potential to alter higher education at its very core than any other technology application we’ve known thus far” (p. 7).

Even though most teachers and researchers have a clear idea of the concept of e-portfolios, some researchers have provided more in depth definitions of e-portfolios. For instance, DiBiase (2002) states that an e-portfolio is “a personalized, Web-based collections that include selective evidence from coursework, artifacts from extra-curricular activities, and reflective annotations and commentary related to these experiences” (p. 2). Abrami and Barrett (2005) define it more clearly as “a digital container capable of storing visual and auditory content including text, images, video, and sound” (p. 2). Moreover, Lorenzo and Ittelson (2005) also define it as “personalized, Web-based collections of work, responses to work, and reflections that are used to demonstrate key skills and accomplishment for a variety of contexts and time periods” (p. 2). Though these researchers use slightly different terms to define e-portfolios, they all consider them as the showcase of the students’ achievements during a certain period of time, and they emphasize the usefulness of e-portfolios to change teacher-directed instructions to student-directed learning methods, in which students are as active agents taking control of their own learning. Due to these beneficial features, e-portfolios can be implemented for multiple purposes such as teaching, learning and assessment of different language skills in addition to the development of self-regulated learning (Barrett, 2007).



As an example, Abbaszad Tehrani (2010) conducted an empirical net-folio-based study (i.e., another name for e-portfolio) with 38 English language learners in Cyprus. The experimental group of the study practiced the writing skill through the use of e-portfolios while the comparison group used no electronic tools. The comparison between the results of the post-test scores indicated that there was no significant difference between the scores of the experimental and the comparison groups. However, the findings of the attitude questionnaire and interviews of the experimental group students indicated that the use of net-folio was effective to encourage the students' views towards the writing skill, teacher-feedback, peer-feedback and the net-folio.

Chau and Cheng (2010) conducted a study through an e-portfolio competition to investigate the effectiveness of e-portfolios for independent learning. Sixty-three Chinese undergraduate students in English courses participated in the study. Qualitative data were obtained from end-of-the-term semi-structured interviews as well as the students' works and reflections in the e-portfolios. The extracted themes indicated some central issues. First, the use of e-portfolios enhanced the sense of 'choice and ownership'. Second, the use of e-portfolios revealed the importance of feedback (more teacher and less peer-feedback). Third, the use of e-portfolios increased computer literacy of the students. Fourth, the students' independent learning strategies improved through the use of e-portfolios. Finally, the students believed that e-portfolios were useful for the development of both process and product learning.

In another longitudinal study by Gerbic, Lewis, and Amin (2011), the effect of using e-portfolios on the students' language learning and the challenges of using e-portfolios were examined. The main concern of the study was to observe how the

students' perceptions and digital literacy could change over a long period of time working with e-portfolios. The survey results indicated positive changes in the students' perceptions towards the effectiveness of e-portfolios, first for their language learning gains, and then for keeping a record of their learning process. The results also showed that working with the e-portfolios helped reduce technology anxiety and barriers, in addition to enhancing the students' interest and confidence.

Considering the usefulness of e-portfolios to develop self-regulated learning, Ziegler and Moeller (2012) conducted a study in which they used *LinguaFolio* (i.e., e-portfolio) to enhance self-regulated learning. Using a questionnaire at the beginning and end of the semester, the researchers found that the *LinguaFolio* had increased the students' intrinsic motivation, mastery goal orientation, task-value, and self-assessment skills.

As another example in the same setting of the present study, the researchers tried to investigate the effectiveness of using e-portfolios and group learning on the students' TOEIC or TOEFL ITP® test scores at one of the Japanese private universities (Fukuda, Suzuki, Hashimoto & Okazaki, 2014). There were 64 students being divided into 16 teams. The findings of the study indicated that the students who had taken TOEFL ITP® test did not show any significant improvement in their final scores while the results of the TOEIC test takers indicated a significant improvement. The researchers also explored the students' ideas about the group learning through questionnaires and reflection sheets. And the final results indicted the students' positive perception towards group learning. Although the difference between the improvement of the students in the two TOEFL ITP® and TOEIC tests was an important finding, Fukuda et al. (2014) did not refer to any probable reasons for this

difference. In my opinion, due to the almost similar features of the two language proficiency tests of TOEFL ITP® and TOEIC, the different results of the learners' performance on the tests in this study may be attributed to the different numbers of the participants taking each test, 42 students for the TOEIC test and only 12 students for the TOEFL ITP® test.

In general, the related literature shows that e-portfolios have been empirically studied several times in different contexts and for different purposes. The studies revealed that e-portfolios can be used to develop language learning and teaching generally, or focus on certain variables specifically. Furthermore, since e-portfolios include a collection of students' works, they provide the possibility of sharing works and exchanging ideas and comments. Showcasing individual works enables active learning through online interactions and develops better outcomes (Barret, 2007; Hughes, 2005; Nicolaidou, 2013; Yastibas & Yastibas, 2015). Moreover, sharing students' works with other classmates might help overcome the restriction of working alone and individual nature of e-portfolios (Barbera, 2009).

### **2.3.1. Online Interactions (expert- and peer-feedback)**

The possibility of sharing one's works with other members who also present their works at the same time can promote interactive feedback. Despite the general idea of the term 'feedback', depending on the context and purpose of studies it may be defined differently. Winne and Butler (1994) describe feedback as "information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, meta-cognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies" (p. 5740). Hattie and

Timperley (2007) also provide another definition for feedback as “information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one’s performance or understanding” (p. 81). They believe that feedback is one of the highly effective ways to improve learning and achievements.

Shute (2008) emphasizes that there are many conflicting arguments in terms of the types of feedback, their content, timing and effectiveness. In her review study, she identifies a clear distinction between the timing and the types of feedback. In terms of timing, she distinguishes between immediate and delayed feedback. The immediate feedback is given right after the task is completed; on the contrary, delayed feedback is not provided immediately after the completion of the task and depending on some variable it may be provided with different degrees of delay. With regard to the types of feedback, she differentiates between the degrees of complexity of the feedback content and classified feedback into a) knowledge of results (KR) that only specifies whether the answer is correct or incorrect; b) knowledge of correct response (KCR) that indicates the incorrect answer together with the correct response; and c) elaborated feedback (EF) that provides not just the correct response but also additional information such as explaining the correct response, referring to a useful material and so forth.

Hattie and Timperley (2007) tries to identify factors that maximize the effectiveness of feedback on learning outcomes. Following the model introduced by Kluger and DeNisi (1996) of the effects of feedback interventions on performance, Hattie and Timperley (2007) introduced their model with four levels of giving feedback including “the level of task performance, the level of process of understanding how to do a task, the regulatory or metacognitive process level, and/or

the self or personal level (unrelated to the specifics of the task)” (p.86). In other words, feedback at the task performance level focuses on the surface of the performance, (e.g., the correct answer). Feedback at the process level is mainly related to the process that an individual takes to do a task. Feedback at the regulation level is related to the internal processes in the mind of an individual. At this stage feedback is aimed to enhanced self-regulation. The final level of providing feedback is at self level such as praise which is known as the less effective type of feedback (Hattie & Timperley, 2007; Kluger & DeNisi, 1996).

Based on the two mentioned review studies (Hattie & Timperley, 2007; Shute, 2008), an empirical study was conducted by Van der Kleij, Eggen, Timmers, and Veldkamp (2012) to test the effectiveness of feedback on the students’ learning outcomes in a computer-based course. They first proposed a framework of the classification of online feedback that combined the two models of feedback levels (Hattie & Timperley, 2007) with feedback timing and content (Shute, 2008). In their study, the students were categorized into three groups who received feedback differently including a) immediate knowledge of correct response (KCR) + elaborated feedback (EF), b) delayed knowledge of correct response (KCR) + elaborated feedback (EF), and c) delayed knowledge of results. The findings of the study demonstrated that there was no significant difference between the achievements of the students regarding the feedback conditions. However, it was indicated that in term of timing, the students preferred immediate feedback, and in terms of content they preferred KCR + EF to KR feedback.

Furthermore, Kulhavy and Stock (1989) stated that verification and elaboration are the two key aspects of effective feedback. Verification identifies if the answer is

correct, whether explicitly or implicitly. And elaboration means to provide additional information that guides the learners to reach the correct answer. Lefevre and Cox (2014) investigated the types of feedback the learners preferred in a technology-based instruction. Their categorization of feedback type was based on the classifications in the work of Dempsey and Wager (1988) and Kulhavy and Stock (1989), and included both verification and elaborative types of feedback. The two values considered for the verification type feedback were no feedback (NF) and knowledge of result (KR). And the values for the elaboration feedback were knowledge of correct response (KCR), explanatory feedback (EX), instruction-based (IB), and extra-instructional (EI). The findings of the questionnaires and interviews revealed that, firstly, feedback is required and should be provided. Secondly, learners preferred to first view the KR type of feedback and then the KCR type. Thirdly, the less the feedback load, the more the learners viewed the feedback. It was indicated that the learners preferred concise and focused feedback rather than elaborate one.

As an example of the online interactions using e-portfolios, Barbera (2009) examined a netfolio approach to the use of e-portfolios to overcome the individual nature of conventional e-portfolios. Netfolio enables a collaborative approach through a network of e-portfolios. Both e-portfolio and netfolio were implemented at a PhD course for the development of basic research competences, and they consisted of three sections of ‘presentation’, ‘competences’, and ‘monitoring’. Even though e-portfolio and netfolio included the same three sections, they were slightly different. In terms of feedback, in the e-portfolio they only received teachers’ feedback, while in the netfolio they first received feedback from the classmates and then those from the teachers. The feedback in the e-portfolio was provided “in public forums for each competence, as

well as by email to the individual mailbox” and for the netfolio “in a specific personal forum area for each competence with a public side” (p.348). The data were collected using two questionnaires (for the teachers and for the students) to investigate their satisfactions, as well as the analysis of the posts on the netfolio such as students’ dialogues and feedback. The findings demonstrated that the e-portfolio and the netfolio were useful tools for learning. Both teachers and students were satisfied with the effectiveness of the e-portfolio and the netfolio. The students who worked with the netfolio made a better progress than the e-portfolio users, and they attributed their better progress to the possibility of exchanging works with their peers. The students highlighted that having interactions with the same level students increased their understanding of their own capabilities. They also mentioned that the collaborative work with the other students could help them improve more than working individually or working only with the teachers.

In another study conducted by Nicolaidou (2013) the impact of e-portfolios on writing performance and peer-feedback was examined. The findings indicated that in addition to the students’ improvement in their writing skill, towards the end of the study, the students showed a good progress in providing feedback on their classmates’ works. The qualitative analysis of students’ comments indicated that gradually the comments changed from ‘simple feedback’ to more ‘constructive feedback’. The results of the interviews also indicated that the students believed that though their friends’ comments were not always correct, they were useful. Moreover, the study revealed that peer-feedback was more beneficial for average and high proficient students.

Contrary to the students' perception about the usefulness of peer-feedback in some studies (Abbaszad Tehrani, 2010; Barbera, 2009; Nicolaidou, 2013), there are also studies showing that although the students appreciated peer-feedback, they could not feel the pedagogical benefits from neither their friends' comments nor their own comments on their friends' works. For instance, the study conducted by Ellison and Wu (2008) demonstrated that students enjoyed peer feedback but did not hold positive attitudes towards its effectiveness. The students stated that they needed to be guided and instructed in order to provide effective feedback on their friends' works. As another example can be referred to the study of Chau and Cheng (2010) in which the effectiveness of e-portfolios for independent learning was investigated. The findings showed that the students emphasized on the usefulness of teacher-feedback for learning, but that they hardly had peer-feedback and that they considered it less significant.

Above all, what is more important is that in the constantly changing world of technology the final goal should not be to implement various learning technologies in education, but to find proper ways to increase the learners' intention to use the technologies. Despite the usefulness of technological tools, particularly e-portfolios to develop language learning skills and self-regulated learning beyond the classes, enhancing learners' intention to continue using technology for language learning is of more significant importance (Lai et al., 2017; Lee & Lehto, 2013; Mobarhan et al., 2014; Reinders, 2014; Richards, 2015).



## **2.4. Motivation and Intention**

In technology-based environments, Davis (1989) refers to the fundamental issue of the users' behavioral intention to continue using a system. He states that the intention for an activity is the extent to which the users intend to do that activity which is normally followed by the occurrence of the actual action. In other words, if the students intend to continue using a system, then the system is likely to be used. Moreover, based on the cognitive theories of motivation and action being motivated to act is equal to having an intention to engage in an action (Deci, 1975). Ellis (1994) suggests that motivation is "the effort which learners put into learning an L2 as a result of their need or desire to learn" (p. 715). Consequently, regarding the strong mutual relationship between motivation and learners' intention for an action, investigating proper ways to facilitate motivation can contribute to researchers' and teachers' understanding of the means to promote intention, which in technology-enhanced environments would increase the use of technology.

Over many years of research on motivation, many researchers have proposed different motivation theories that in spite of having some differences, they share overlapping concepts and characteristics. The theories mainly differ in their starting points as they may have either roots in the learners' cognitive beliefs or the contextual factors (Grabe, 2009). However, well-established motivation theories such as achievement theory, attribution theory, goal-orientation theory, social-cognitive theory, self-determination theory, see motivation arising from cognitive beliefs and expectations (Pintrich & Schunk, 2002; Schunk & Zimmerman, 2006). What these theories have in common is that they are task-dependent and characterize motivation as the influence of both individuals' cognitive beliefs and the environmental factors.

Considering the proposed theories, since successful out-of-class learning, specifically through the use of PLEs, largely depends on learners' self-determined behaviors and actions (Mobarhan et al., 2014; Reinders, 2014), the self-determination theory (SDT; Deci & Ryan, 1985) as one of the most comprehensive theoretical approaches to human motivation was chosen as the framework for this study.

#### **2.4.1. Self-determination Theory (SDT)**

Self-determination theory has been applied to many educational (Chen & Jang, 2010; Lai et al., 2012; Zhou, 2016) and non-educational settings (Lee, Lee, & Hwang, 2015; Yoon & Rolland, 2012) to explain the nature of different types of motivation. Extrinsic motivation, also known as controlled motivation, addresses the achievements influenced by external factors such as rewards or punishment, whereas intrinsic motivation, also known as autonomous motivation, addresses situations in which the activity is undertaken due to the inherent enjoyment of the activity apart from the outside effects (Vallerand, 1997). Deci and Ryan (1985) discuss the undermining or supporting effects of extrinsic factors on intrinsic motivation through the sub-theories of organismic integration theory (OIT) and cognitive evaluation theory (CET).

OIT defines different types of motivation on a continuum that begins with the extrinsic regulation as the least self-determined type of motivation followed by introjected, identified, and integrated types of motivation. Towards the end of the continuum, with the increase in the degree of internalization, extrinsic motivation is more likely to change to autonomous self-regulated motivation and move towards intrinsic motivation. Moreover, CET argues for the significance of contextual support and satisfaction of the essential needs in order to maximize intrinsic motivation. CET

focuses on perceived competence (PC), perceived autonomy (PA), and perceived relatedness (PR) as the three basic psychological human needs that facilitate intrinsic motivation. The need for competence is the individual's need to feel capable of effective performance, participation, and achieving one's goals. The need for autonomy implies the intention to feel free to choose and control one's own actions. And the need for relatedness is to feel connected to others through proper interaction and cooperation (Vallerand, 1997).

Overall, after many years of research on the importance of human motivation, intrinsic motivation has shown to be the most effective type of motivation, resulting in long-term and better performance of learners in various domains (Baard, Deci, & Ryan, 2004; Roca & Gagne, 2008). Moreover, according to Chen and Jang (2010), the determinants of SDT highly correspond to the features of online learning environments. For instance, perceived competence resembles the challenges for learning technical skills, perceived autonomy reflects flexible learning, and perceived relatedness resembles computer mediated communication and social interaction. Due to the crucial importance of learners' motivation in technology-enhanced learning environments and the similar features of SDT to these environments, this theory has been applied in several online learning contexts.

As an example, the effect of the three determinants of SDT (i.e., perceived competence, perceived autonomy, and perceived relatedness) on the students' knowledge-sharing behaviors in virtual environments was tested by Yoon and Rolland (2012). The data were collected from 209 participants who were the members of 40 different virtual communities. The findings revealed that perceived competence and perceived relatedness influenced knowledge-sharing behaviors with almost the same

degree of strength. However, perceived autonomy was not an influential factor on the knowledge-sharing behaviors in virtual communities. Yoon and Rolland (2012) believed that the ineffectiveness of perceived autonomy may be related to the features of the virtual communities in which because of the voluntary participation of the members their autonomy is assured.

Considering the use of e-portfolios, in a study conducted by Mobarhan et al. (2014), the students' intention to use e-portfolios for educational purposes was examined through the integration of information system (IS) continuance model and SDT determinants. The students of two Malaysian universities who had experienced using e-portfolios before (N=374) took part in the study. The final model showed that those Malaysian students' satisfaction was the most influential determinant on their intention to continue the use of e-Portfolios. It was also indicated that if the students' perception of the usefulness of the e-portfolios and their prior expectations are fulfilled, they would be more willing to use them. Although perceived autonomy and competence could influence other variables in the final model (i.e., perceived usefulness, confirmation, satisfaction), perceived relatedness did not have any effect on the other variables and students' intention. Mobarhan et al. (2014) argue that the ineffectiveness of perceived relatedness can be related to the choice of measurement items which were adopted from a work-based study rather than an educational context.

Self-determination theory has also been tested in some Japanese studies to explain Japanese students' motivation for foreign language learning, even though they were non-technology-based projects. Agawa and Takeuchi (2016) conducted a survey-based study by 317 Japanese students from three different universities to verify SDT in Japanese contexts. The findings of the study showed that the fulfillment of the

students' need for competence had the strongest effect on their motivation. It was also indicated that perceived relatedness significantly influenced the students' motivation. However, perceived autonomy had a negative effect on their motivation. In this study, the researchers used the questionnaire developed by Hiromori (2006), based on SDT, to measure Japanese EFL learners' motivation. Agawa and Takeuchi (2016) believe that, first there is a need to review the definitions of the constructs of autonomy and relatedness in the questionnaire, and second, the applicability of SDT to the Japanese EFL environments should be further examined.

In another study conducted by Otoshi and Heffernan (2011), the same questionnaire was implemented to investigate Japanese EFL students' learning motivation of English and business majors. The final models revealed different results according to the students' majors. The obtained model of the students studying English showed that the fulfillment of the needs for competence and relatedness influenced the students' motivation while perceived autonomy had no significant effect on their motivation. Furthermore, the final model of the business students indicated that only the fulfillment of competence could be an influential factor on the students' motivation and autonomy and relatedness had no impact on their motivation. In addition to the learners' motivation, this study tested the effect of the three needs on the students' TOEIC test scores. In their initial model, Otoshi and Heffernan hypothesized a positive effect of perceived competence and intrinsic motivation on the students' TOEIC test scores of both English and business majors. The findings revealed that the students' intrinsic motivation positively influenced their TOEIC test scores; but perceived competence only had an impact on the TOEIC test scores of the English major students.

Considering the above mentioned studies that implemented SDT in Japanese contexts and the inconsistencies between the findings related to the fulfilment of the three psychological needs defined by SDT, this theory needs more investigation in the Japanese contexts. More importantly, these studies tested SDT in traditional, non-technology-based environments, however, with the vast use of technology in education and specifically EFL domains, this theory should be studied in different kinds of technology-based contexts. Therefore, this study tries to investigate if the motivation determinants of SDT (i.e., perceived competence, perceived autonomy, and perceived relatedness) can predict Japanese EFL students' intention to continue using a web-based e-portfolio system for OCLL (as a real-use experience of technology) in addition to their actual usage of the system.

# **Chapter 3:**

## *Study 1*

### **3.1. Introduction**

The effective implementation of learning technologies supports both inside and beyond the classroom learning opportunities and maximizes students' learning outcomes in different ways (Chapelle, 2010; Zhao & Lai, 2007). Although many EFL teachers and instructors try to incorporate technological tools in their teaching contexts and benefit from the effectiveness of information and communication technologies (ICTs), this attempt is mostly restricted to the inside classrooms, and technology is not efficiently implemented in designing teacher-supported learning contexts beyond the classroom (Stockwell, 2013; Whittaker, 2013).

Findings from previous studies provide evidence that the emerging technology offers several new resources that enhance self-regulated language learning beyond the classroom (Nunan & Richards, 2015; Reinders, 2014). However, more important than the availability of technology is its proper application for language learning. Even though self-study takes place outside of the classroom, students' lack of information about the available resources and lack of skill to implement those resources add to the responsibility of the teachers. There are various kinds of ICTs that can be used for out-of-class language learning (OCLL), but some may not be as effective and beneficial as others (Doyle & Parrish, 2012; Inozu et al., 2010; Lai & Gu, 2011). Accordingly, there is no doubt that EFL teachers and instructors need to introduce or design technology-enhanced OCLL contexts that satisfy the students' basic needs. As an example, this study investigates the implementation and effectiveness of a web-based e-portfolio system developed by the present researcher to support Japanese EFL



students' out-of-class reading practice. This investigation is guided by the two research questions:

1. Is there any significant difference between the proficiency of the students who practice reading outside of the class through the web-based e-portfolio system and that of those who have out-of-class reading practice without the e-portfolio system?
2. What are the students' attitudes towards the effectiveness of the web-based e-portfolio system with regards to the different aspects of the system such as content of the system, peer-feedback, and post-reading activities?

Considering the research questions of this study, a null hypothesis is proposed for the quantitative phase of the study.

**H<sub>01</sub>:** There is no significant difference between the proficiency of the students who practice reading outside the class through the web-based e-portfolio system and those who have out-of-class reading practice without the e-portfolio system.

No hypothesis is formulated for the qualitative question of the study, following the claim of Maxwell (2005) that states

The distinctive characteristic of hypotheses in qualitative research is that they are typically formulated after the researcher has begun the study; they are grounded in the data and are developed and tested in interaction with them, rather than being prior ideas that are simply tested against the data. (p. 69)

## **3.2. Methodology**

### **3.2.1. Participants**

The study was conducted at Tohoku University, which is one of the largest national universities in Japan with a nation-wide reputation for high-quality ICT resources. The participants were 212 EFL non-English major undergraduate students attending general English classes. The students belonged to engineering, law, and science faculties. Four classes were randomly chosen: Two classes as the experimental group (N=109) and two classes as the comparison group (N=93). Students' age ranged from 18 to 21, and 78.32% were male. The majority of the students were freshmen (81.22%) and the rest were sophomores. Though all the students took part in the classes, three students did not attend either the pre-test or post-test and their scores were eliminated from the analysis. All the participants signed an informed consent form that explained the aim and procedure of the study at the beginning of the semester. It should be mentioned that the term 'instructor' refers to the researcher (author of the dissertation) who was working as a teaching assistant (TA) at the time of this study.

### **3.2.2. Instruments and Materials**

In order to achieve the purpose of this study the following instruments and materials were used.

#### **3.2.2.1. Quantitative Phase**

**TOEFL ITP® test:** For the quantitative phase of this study, all the students of both the experimental and the comparison groups took two different samples of the

TOEFL ITP<sup>®</sup> test at the beginning (pre-test, TOEFL ITP<sup>®</sup> test 1998a) and at the end of the semester (post-test, TOEFL ITP<sup>®</sup> test 1998b), of which only the students' reading scores were used for the purpose of this study. The TOEFL ITP<sup>®</sup> tests are originally paper based tests that measure the English language proficiency of non-native English speakers. The questions are multiple choice with four answers for each question.

The tests evaluate skills in three areas: • Listening Comprehension measures the ability to understand spoken English as it is used in colleges and universities. • Structure and Written Expression measures recognition of selected structural and grammatical points in standard written English. • Reading Comprehension measures the ability to read and understand academic reading material written in English. (*TOEFL ITP<sup>®</sup> Test Taker Handbook*, 2016, p. 3)

In the context of the present study (i.e., Tohoku University), the paper-based tests are transferred into computer-based online tests. The reading section consists of 50 questions, two scores are assigned for each question, and students' scores range between 0-100.

The reliability of TOEFL ITP<sup>®</sup> tests is approved by Educational Testing Service (ETS), and for the two tests of January 2009 and December 2009 the reliability is reported as follow: listening comprehension ( $r = 0.93$ ), structure and written expressions ( $r = 0.90$ ), and reading comprehension ( $r = 0.88$ ) (TOEFL ITP<sup>®</sup> Assessment Series, [https://www.ets.org/s/toefl\\_itp/pdf/toefl\\_itp\\_score.pdf](https://www.ets.org/s/toefl_itp/pdf/toefl_itp_score.pdf))

In addition to the reported reliability of the TOEFL ITP<sup>®</sup> tests by ETS, the reliability of the reading section of the test used in this study was once more examined

through the correlation between the results of the two reading test scores in this study and the findings indicated high reliability ( $r = 0.92$ ).

### **3.2.2.2. Qualitative Phase**

The qualitative phase of this study, which was mainly for the purpose of the evaluation of the web-based e-portfolio system, investigated the experimental group students' attitudes towards the system effectiveness. As Tahaine and Danna (2013) state, attitudes are important factors in both language growth and language destruction. Attitudes are internal states that influence what the learners may want to do, and these internal states may be positive, negative, favorable, or unfavorable reactions towards something.

Ajzan (1988) explains attitudes as “a disposition to respond favorably or unfavorably to an object, person, institution, or event” (p. 4). Moreover, Wenden (1991) proposed a broader definition of attitudes. He states that the term attitudes includes three components: cognitive, affective, and behavioral. A cognitive component is made up of beliefs or opinions about an object. The affective one refers to the feeling and emotions that one has towards the object, likes or dislikes that object, and is with or against it. Finally, the behavioral component refers to one's consisting actions or behavioral intentions towards the object. Baker (1992) also defines attitudes as “a hypothetical construct used to explain the direction and persistence of human behavior” (p. 10).

Taking the above definitions of attitudes into consideration, in this study the students' attitudes were investigated regarding their cognitive, affective, and behavioral states towards the web-based e-portfolio system. Their attitudes were

investigated through semi-structured interviews. According to Mackey and Gass (2005), “semi-structured interviews are the ones in which the researcher uses a written list of questions as a guide, while still having the freedom to digress and probe for more information” (p. 173). The interview questions aimed at examining the effectiveness of the system such as content of the system, peer-feedback, and post-reading activities. The interview included seven questions, and it was conducted in English (see Appendix A).

### **3.2.2.3. Web-based e-portfolio System**

In addition to the measurement instruments of this study, the main material used as the treatment was a web-based e-portfolio system. The idea of the web-based e-portfolio system was based on that of Reinders (2014), who emphasizes that the efficient integration of virtual learning environments (VLEs) and personal learning environments (PLEs) results in transferring students from VLEs to continuing self-regulated learning through their own PLEs.

Peachey (2013) emphasizes the implementation of the open-access web-based tools in online environments to ensure that all students can freely access the tool. Therefore, the web-based e-portfolio system was developed by the effective use of two easy and freely available Google applications: Google Drive as the personal learning environments (PLEs) and Google Sites as the collaborative virtual learning environment (VLE). The fundamental step of the system design was the establishment of a shared platform (VLE) to locate a well-defined and clear study plan, to assemble and present all students' e-portfolios, and finally to share ideas and transfer peer and expert feedback. Figure 3.1 illustrates the homepage of the system's website in which

the required components are categorized as individual pages on the left side of the homepage. Due to the certain features of Google Sites, the pages are arranged in an alphabetical order. Although the alphabetical order does not accord with the actual procedure, here the pages are explained according to the website's arrangement.

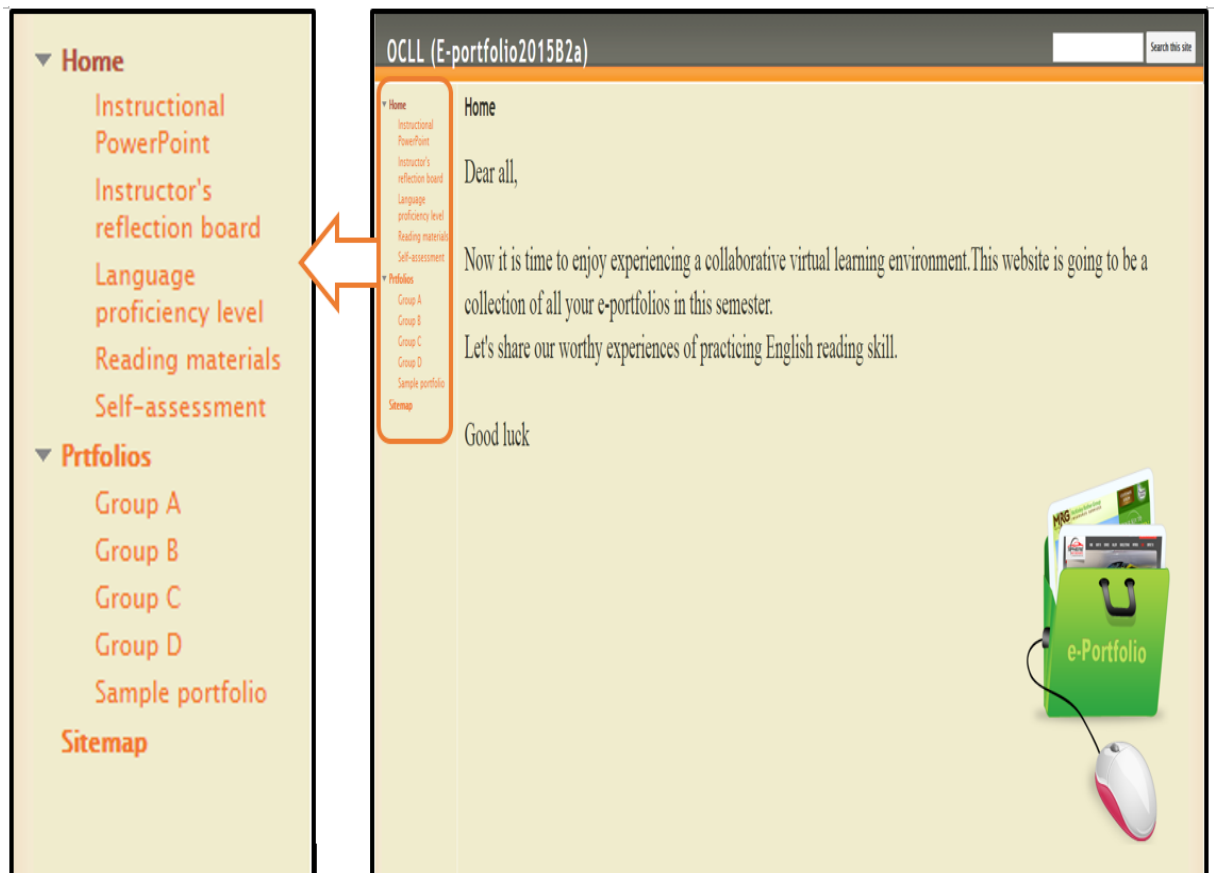


Figure 3.1. Homepage of the web-based e-portfolio system

- ***Instructional PowerPoint slides***

In order to reach the system's full potential, it was necessary to plan instructional training sessions in advance. Face-to-face induction sessions, with an estimation of almost 150 minutes, could provide students with an accurate understanding of the entire procedure. A clear-cut definition of e-portfolio initially in

addition to a detailed explanation of the individual and collaborative aspects of the system and assignment submission process could boost students' engagement and motivation. To do so, illustrated Microsoft Office PowerPoint slides, including step by step explanation of the whole process, were created for the F2F instructional sessions. In these slides the students were instructed to

- I. Register for individual Gmail accounts;
- II. Access their personal Google Drives;
- III. Create a folder for their e-portfolios named as "*Full name portfolio*"; and
- IV. Share the direct link of their e-portfolios with the instructor by sending it through their newly registered Gmail accounts. Therefore, the instructor could access their accounts and e-portfolios to register and invite them to the OCLL website.

The PowerPoint slides were then uploaded on the website for the students' probable reference afterward. The students were also asked to contact the instructor if they had any problems with the registration.

- ***Instructor's reflection board***

The second page named the instructor's reflection board was an essential section to enhance the sense of relatedness between the instructors and the students (Smith & Tillema, 2003). The page consisted of the instructor's overall weekly feedback on the students' ongoing assignment submissions. Through weekly monitoring of the e-portfolios, the instructor tried to figure out common learning obstacles and tried to eliminate them by introducing online supplementary training

materials in the shared homepage of the system or individual comments in the students' personal pages on the website. A sample of the instructor's explanation about writing summaries given in the fourth week of the course is provided in Appendix B.

- ***Language proficiency level***

The third page of the website dealt with the students' level of English language proficiency. A link to the Cambridge English language assessment website (<http://www.cambridgeenglish.org/test-your-english/adult-learners/>) directed each student to an online test, of which the final scores were interpreted according to the Common European Framework of Reference for Languages (CEFR) that classifies students' language proficiency into six levels as A1, A2, B1, B2, C1, and C2 (see Appendix C). The initial language proficiency test aimed to facilitate the students with an overall understanding of their English abilities and to assist them in finding reading materials appropriate to their levels.

- ***Reading materials***

A large number of accessible authentic materials on the web may simply provide the students with sufficient reading practice opportunities. However, not all the available materials lead to an effective and proper learning. Students need to be supported and guided by the instructors in order not to be misled in the vast virtual environment (Murray, 2005; Kitsantas, 2013). In order to provide the required support, instructors may select and provide the students with a range of effective websites (Murray, 2005). Furthermore, as mentioned in the chapter two, the reading proficiency



enhancement was based on the selected principles of extensive reading explained by Day and Bamford (2002). Given this, providing a wide range of appropriate reading materials was an indispensable principle. Accordingly, an accurate investigation was done through online authentic reading materials which resulted in the selection of five pedagogically and academically approved websites such as TeachYa and cK-12. The students were able to choose their preferred materials independently based on their initially indicated proficiency level. Since the selected websites contained thousands of graded reading materials, the students' role as independent and active ones responsible for their own learning could also be confirmed. Besides, students were allowed to choose their own preferred online materials apart from the recommended websites. However, the findings of this study indicated that more than 95% of the students selected their reading materials from the presented websites in the web-based e-portfolio system.

- ***Self-assessment***

As Alderson (2005) states, self-assessment can result in self-awareness and indication of a person's weaknesses, strengths, and learning preferences, which in turn enhance setting goals for the improvement of the future learning (Kitsantas, 2013). Being able to set appropriate individual goals maximizes motivation for autonomous learning (Schunk, Pintrich, & Meece, 2007). Consequently, the self-assessment page focused on how students could monitor their own learning outcomes and at the same time set goals to improve their future language learning. To do so, a set of scoring criteria, based on the objectives of the course was accurately designed to guide the

students in reflecting on their personal achievements and goal setting process (see Appendix D).

- **Portfolios**

Uniting all the e-portfolios in a single virtual collaborative space allows the students to directly observe and grasp how their classmates are learning with distinctive strategies (Kitsantas, 2013), and at the same time enhances peer and expert feedback. The students not only need to feel connected to the instructor, but, more importantly, they must feel that they belong to a ‘community’ of the students who share the same learning goals. As shown in Figure 3.1 (see p. 41), the students were randomly categorized into groups. The number of the groups and the number of the students in each group were decided based on the total number of the students in the class. Each student had a personal page with the student’s full name, and it was hyperlinked to his or her personal e-portfolio created in Google Drive (Appendix E).

According to the European Language Portfolio (ELP), a portfolio requires three essential sections: a) language passport (any official qualifications, intercultural experiences, and proficiency in different languages defined according to the levels of CEFR); b) language biography (inside and outside classroom learning experiences and individual learning plans through goal-setting and self-assessment checklists); and c) dossier (a record of the student’s achievements and works in progress). Hence, in this study, each student was asked to include the following three types of files in their personal e-portfolios:

- a) An introduction file consisting of each student’s personal language backgrounds and experiences in addition to the students’ intended goals and plans for learning.

Thus, an online introduction form consisting of 19 multiple-choice and open-ended questions was assigned initially to obtain the required information (Appendix F);

b) Weekly goal setting and self-assessment sheets; and

c) The collection of each student's weekly reading files including the links to the reading materials and post-reading activities. Samples of the content of the students' e-portfolios are provided in Appendix G.

Post-reading activities are essential to help the students interact with the text and relate their reading skill to other skills such as the writing (Peachey, 2013; Rivas, 1999). The selected websites in the e-portfolio system included different post-reading activities following each passage such as word games, sentence matching, and multiple choice/open-ended questions. However, in order to have more effective reading practice, the students were instructed to do other post-reading activities such as writing summaries, listing newly learned words, and making questions after reading the passages. Accordingly, students uploaded a weekly file of their reading practice, including the links to the passages they read during the week and their preferred post-reading activities carried out after reading the passage.

In order to facilitate organized mutual feedback, students from opposite groups were randomly assigned into pairs for weekly interactions. As explained in section 2.3.1, feedback might be given at four different levels such as task, process, regulation and self levels (Hattie & Timperley, 2007). Despite the importance and effectiveness of process and regulation level feedback, they are considered the difficult levels beyond the students' ability. Therefore, the students were instructed on the distinction between self-level (praise) and task-level (correction) feedback. Moreover, though self-level feedback may be motivating in some cases, it is known as the less effective

type of feedback (Hattie & Timperley, 2007; Kluger & DeNisi, 1996). Consequently, the students were asked to practice task-level feedback in their interactions. Besides, the task-level feedback was based on the classifications identified by Shute (2008) that include three types of feedback: a) knowledge of results (KR) that only specifies whether the answer is correct or incorrect; b) knowledge of correct response (KCR) that indicates the incorrect answer together with the correct response; and c) elaborated feedback (EF) that not only provides the correct response but also adds more information such as explaining the correct response, referring to a useful material and so forth.

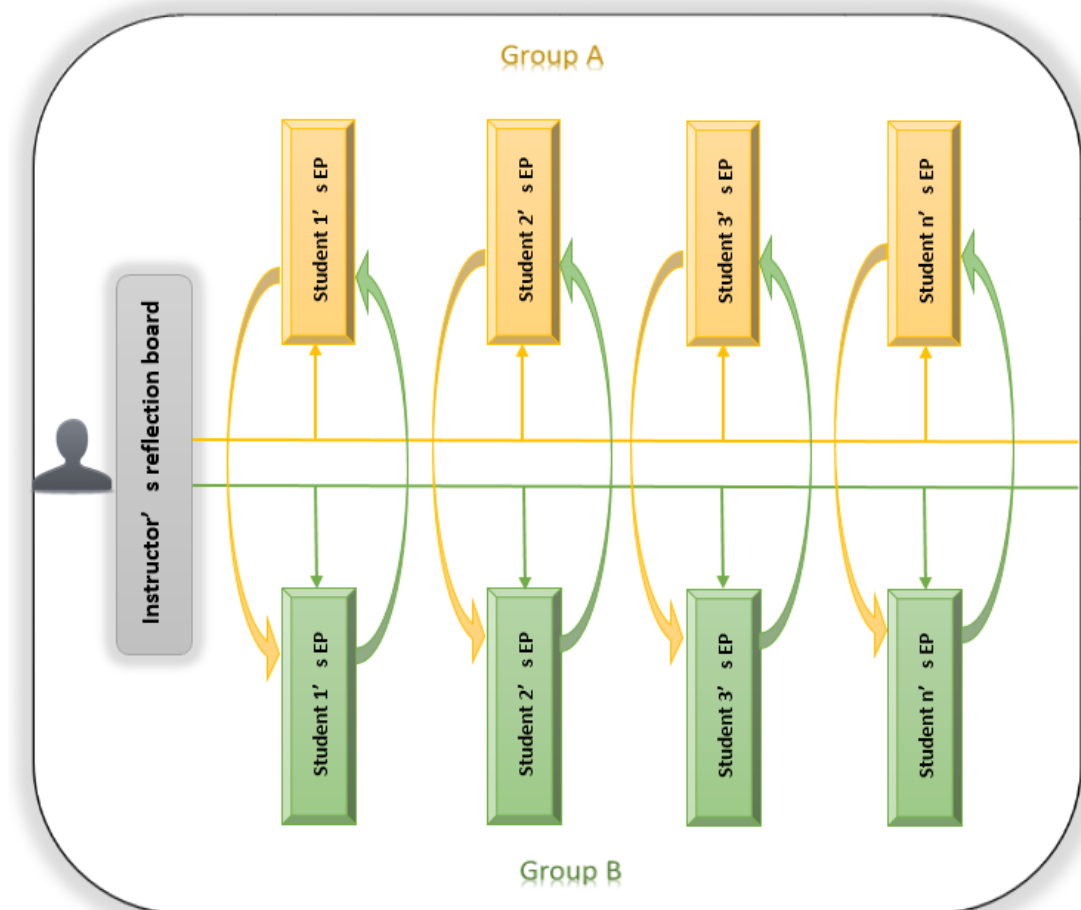


Figure 3.2. Instructor and peer-feedback process

### 3.3.3. Design

This study was conducted through a mixed method of both the quantitative and qualitative research. As Dörnyei (2007) states mixed method can help extend the research perspective and testing the complementary findings.

Depending on how much weight is assigned to the contribution of the various methods, a study can be a) QUAL + Quan, which is frequent in case studies, b) QUAN + Qual, which is useful to describe an aspect of a quantitative study that cannot be quantified or to embed a component within a larger, primarily quantitative study, and c) QUAL + Quan, which is employed in a traditional triangulation design conducted for validation purposes. (Dörnyei, 2007, p. 172)

In this study, the second kind of mixed method (Quan + Qual) was applied in which the quantitative part of the study was quasi-experimental including both pre-test and post-test.

### 3.3.4. Procedure

In the context of the present study, general English classes were held twice a week, each session 90 minutes, and the semester lasted for almost 4 months. The participants practiced the reading skill of TOEFL ITP<sup>®</sup> test in CALL classrooms using an interactive blended English language learning enhancement system (iBELLEs, Okada & Sakamoto, 2015). The participants of the experimental group continued practicing reading beyond the classroom through the developed web-based e-portfolio system, whereas those of the comparison group followed the common beyond class

practice guideline in which they were introduced to the same list of appropriate language practice websites and were asked to continue reading practice outside of the class without any specifically designed OCLL environments.

On the first session of the class, the students of both the experimental and the comparison group took TOEFL ITP<sup>®</sup> test (1998a) as the pre-test of the study. The instructional PowerPoint slides were presented in the second session of the F2F experimental group classrooms. With the help of the teacher in charge, the instructor (the researcher), and the teaching assistant, all the students created their own Google Drive accounts, and through an email they sent the links of their personal e-portfolios to the instructor. After the class, the instructor created an individual page for every student on the main webpage of the system which was linked to their personal e-portfolios (see section 3.2.2.3, portfolios). Finally every student was invited as a member to the web-based e-portfolio system.

As previously explained, the students of the experimental group started their out-of-class reading practice through the e-portfolio system from the second session. Even though it was done outside of the classroom, the instructor and the students were connected through the system. At the end of the term both the experimental and the comparison groups took another version of TOEFL ITP<sup>®</sup> test (1998b), which was used as both the post-test of the study and the final course grading.

### **3.3.5. Data Analysis**

The first research question aimed to investigate the effectiveness of the web-based e-portfolio system on the students' reading proficiency improvement. To find

the answer to this question, firstly, a paired samples *t*-test was conducted to compare the means of the experimental group students' pre-test and post-test scores to examine their reading proficiency improvement at the end of the term. Secondly, in order to investigate how much of this improvement was due to the use of the web-based e-portfolio system, an independent samples *t*-test was conducted to compare the means of the reading gain scores of both experimental and comparison groups. The analysis was conducted using the SPSS software (SPSS for Windows, version 18.0).

The second research question was related to the qualitative phase of the study. This question considered students' attitudes towards the implemented web-based e-portfolio system. Therefore, to answer this question, students' answers to the interview questions were compared and discussed through qualitative content analysis. Dörnyei (2007) believes that although the content analysis was used for quantitative data, recently it is very much associated with qualitative studies. Content analysis in quantitative research is conducted through objective counting of words, phrases, and grammatical structures, and "it is called manifest level analysis, because it is an objective and descriptive account of the surface meaning of the data" (Dörnyei, 2007, p. 245). On the other hand, in qualitative studies content analysis mainly focuses on coding for themes, finding patterns, interpretation of the data and drawing conclusions, and "it is called latent level analysis, because it concerns a second-level interpretive analysis of the underlying deeper meaning of the data" (Dörnyei, 2007, p. 246).

According to Berg (2001), the best solution is blending the manifest and latent content analysis in which the researcher can use descriptive statistics including presenting proportions and frequency for the themes extracted from the contents. Therefore, the data of the qualitative content analysis can be displayed in charts, graphs,

matrices and networks (Miles & Huberman, 1994), which is the method of analysis used in this study.

### **3.3. Results**

This section presents the results of the analysis of the quantitative data for the first research question and the qualitative data for the second research question of the study.

#### **3.3.1. Analysis of the Results of the First Research Question**

The first research question of the study aimed at finding if there was any significant difference between the reading proficiency of the students who practiced reading outside of the class using the web-based e-portfolio system and that of those who had out-of-class reading practice without the e-portfolio system.

##### ***3.3.1.1. Experimental Group TOEFL ITP® Pre-test and Post-test Scores***

To compare the scores of the experimental group students in the reading section of TOEFL ITP® pre-test and post-test, the researcher first made sure of the normality of the distribution of scores. The normality of the distribution of scores was checked through One-sample K-S test (Table 3.1).

As shown in Table 3.1 the distribution of the pre-test scores [ $z = 0.733$ ;  $p = .300$ ] and post-test scores [ $z = 0.176$ ;  $p = .137$ ] of the experimental group students



are normal . The descriptive statistics of the reading pre-test and post-test scores are presented in Table 3.2.

Table 3.1

*One-Sample K-S Test of Reading Pre-test and post-test, experimental group*

		Experimental group	Experimental group
		Pre-test	Post-test
N		107	107
Normal Parameters <sup>a,b</sup>	Mean	62.75	70.79
	Std. Deviation	11.728	8.630
Most Extreme Differences	Absolute	.088	.079
	Positive	.088	.074
	Negative	-.039	-.079
Kolmogorov-Smirnov Z		.733	.176
Asymp. Sig. (2-tailed)		.300	.137

*Note.* a. test distribution is normal; b. calculated from data

Table 3.2

*The descriptive statistics of pre-test and post-test scores*

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	107	40	92	62.75	11.72
Post-test	107	54	92	70.79	8.63

The descriptive statistics of the scores in Table 3.2 indicated a difference between the means of pre-test ( $M = 62.75$ ) and post-test ( $M = 70.79$ ) scores of the students. Table 3.3 indicates that this difference was statistically significant through a paired samples  $t$ -test.

As shown in the table 3.3, the results of the paired samples *t*-test revealed a statistically significant difference between the students' performance on the pre-test and post-test [ $t(106) = -8.57, p < .001$ ].

Table 3.3

*Paired samples t-test of the pre-test and post-test scores*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest - Posttest	-8.03	9.69	.937	-9.89	-6.17	-8.57	106	.000

### 3.3.1.2. Experimental and Comparison Group Gain Scores

After it was revealed that the reading proficiency of the experimental group students had significantly improved at the end of the term, the researcher compared the gain scores of the students in the experimental and the comparison group to examine if this improvement was due to the web-based e-portfolio system.

This comparison can be justified if the students of the two groups (experimental and comparison) have the same level of reading proficiency before the treatment. Therefore, in order to make sure of the homogeneity of the students of the two groups, the scores of the students in the experimental and the comparison group in the reading pre-test were compared. At first, the normality of the distribution of the reading pre-

test scores of the experimental group (Table 3.1) and the comparison group were checked through One-sample K-S test (Table 3. 4).

Table 3.4

*One-Sample K-S Test of Reading Pre-test, experimental and comparison group*

		<b>Experimental group</b>	<b>Comparison group</b>
		<b>Pre-test</b>	<b>Pre-test</b>
N		107	92
Normal Parameters <sup>a,b</sup>	Mean	62.75	62.00
	Std. Deviation	11.728	11.882
Most Extreme Differences	Absolute	.088	.089
	Positive	.088	.072
	Negative	-.039	-.089
Kolmogorov-Smirnov Z		.733	0.649
Asymp. Sig. (2-tailed)		.300	0.285

*Note.* a. test distribution is normal; b. calculated from data

As shown in Tables 3.1 and 3.4, the normality of the distribution of pre-test scores in both the experimental [ $z = 0.733$ ;  $p = .300$ ] and the comparison group [ $z = 0.649$ ;  $p = .285$ ] were approved. The descriptive statistics of the reading pre-test scores of the experimental and the comparison groups are presented in Table 3.5.

Table 3.5

*The descriptive statistics of experimental and comparison group pre-test scores*

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Experimental group</b>	107	40	92	62.75	11.72
<b>Comparison group</b>	92	38	94	62.00	11.88

The descriptive statistics of the scores in Table 3.5 indicated a small difference between the means of experimental group scores ( $M = 62.75$ ) and the comparison group scores ( $M = 62.00$ ). Therefore, an independent samples  $t$ -test was conducted to see if this small difference was statistically significant (Table 3.6).

Table 3.6  
*Independent samples t-test of the reading pre-test scores*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Pre test	Equal variances assumed	.003	.954	.446	197	.656	.74	1.67	-2.56	4.05
	Equal variances not assumed			.445	191.7	.657	.74	1.67	-2.56	4.06

As shown in Table 3.6, Levene's test of equality of the variances indicated that the equal variances were assumed [ $F = 0.003$ ;  $p = .954$ ]. The results indicated that there was no significant difference between the scores of the experimental and comparison groups [ $t(197) = 0.445$ ;  $p = .656$ ], hence, it was concluded that the two groups were homogeneous in terms of their reading proficiency before the treatment at the beginning of the term.

In order to investigate the effectiveness of the web-based e-portfolio system on the students' reading proficiency, the final stage of the analysis was the comparison between the TOEFL ITP® test gain scores of the experimental and the comparison group. Table 3.7 indicates the descriptive statistics of the experimental and comparison group students' reading gain score.

Table 3.7

*The descriptive statistics of experimental and comparison group gain scores*

	N	Minimum	Maximum	Mean	Std. Deviation
Experimental group	107	-16	28	8.03	9.69
Comparison group	92	-18	28	4.54	9.48

The descriptive statistics of the scores indicated a difference between the means of the gain scores of the experimental group ( $M = 8.03$ ) and the comparison group ( $M = 4.54$ ). Therefore, an independent samples  $t$ -test was conducted to check if this difference was statistically significant (Table 3.8).

Table 3.8

*Independent samples  $t$ -test of the reading gain scores*

		Levene's Test for Equality of Variances		$t$ -test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Gain score	Equal variances assumed	.173	.678	2.55	197	.011	3.49	1.36	0.80	6.18
	Equal variances not assumed			2.56	196.5	.011	3.49	1.36	0.80	6.18

As presented in table 3.8, based on Levene's test, the equality of variances was assumed [ $F = 0.173$ ;  $p = .678$ ], and the results suggested that the difference between the gain scores of the experimental and the comparison groups of the study was significant [ $t(197) = 2.55$ ;  $p < .05$ ]. Therefore, the experimental group significantly

outperformed the comparison group in terms of reading proficiency at the end of the term. The null hypothesis of the first research question was rejected, and it can be concluded that there was a significant difference between the proficiency of the students who practiced reading outside of the class using the web-based e-portfolio system and those who had out-of-class reading practice without the e-portfolio system.

### **3.3.2. Analysis of the Results of the Second Research Question**

The second research question aims to investigate the students' attitudes towards the implemented web-based e-portfolio system. In order to find the answer to this question, semi-structured interviews were conducted by the researcher. Thirty-one students of the experimental group who had been provided with the web-based e-portfolio system were randomly selected and interviewed at the end of the term after the post-test.

#### ***3.3.2.1. Describing the Results of the Interview Questions***

All the interviews were recorded, transcribed, and analyzed thoroughly and for each question the main themes were extracted and presented in a table with the number of the students and percentages of the reference. For each theme, some relevant parts of the interviews are extracted and presented as samples after the table. In order not to reveal the participants' identities, alphabet letters are used instead of their real names.

**Question 1. How do you feel about the e-portfolio system? (Easy/Difficult; Useful/Useless)**

As presented in Table 3.9, the excluded themes indicated that 67.7% of the students found the web-based e-portfolio system useful and easy to use at the end of the term. The students believed that because of experiencing e-portfolios for the first time and sharing a collaborative space with the rest of the class and the instructor, it was difficult for them at the beginning.

Table 3.9

*Themes of the First Interview Question*

	<b>Theme</b>	<b>Number of students</b>	<b>Percentage of the answers</b>
1	<b>Difficult and not considered useful at the beginning</b> Because of being the first experience with e-portfolio system. But, easily handled after some sessions and useful now.	21/31	67.7%
2	<b>Useful and easy to use form the beginning</b> Because of being interested into learning English using technology	5/31	16.1%
3	<b>Though useful, but still difficult to use</b> Because of the lack of time	4/31	12.9%
4	<b>Though useful, but still difficult to use</b> Because of no interest in learning English	1/31	3.2%

They emphasized the importance of the instructor's guidance in addition to the instructional PowerPoint slides since they had referred to the slides several times during the first weeks. The students stated that after some sessions working on the

system, they could easily follow the process and found the system very useful for their out of class language practice. For example, two students mentioned as follows:

***Student A:** It was difficult, and after teacher explained and show PowerPoint, I used PowerPoint and it was easy. It is useful because I have e-portfolio and teacher help me and I read a lot of texts.*

***Student B:** First class was very difficult and not useful, but last weeks was easy and now easy too and I learn a lot. My reading score improved very much and I think it is very useful.*

The results also revealed that some students (16.1%) found the system useful and easy to use from the beginning. They emphasized using online websites and mobile phone applications for learning English language, and they preferred to learn English using technology instead of the traditional paper-based methods.

***Student C:** I am member of different English websites and I always practice English on the internet with some friends. I have installed some English dictionaries and TOEFL test application on my mobile phone. I very enjoyed the e-portfolio system and I learned a lot of new things.*

The resulted showed that though some of the students (12.9%) found the system useful but due to the lack of time they had difficulty using the system.

***Student D:** It is useful but I have a lot of assignment in other classes and I am busy for part-time job, I have not enough time to use it.*



Finally one student (3.2%) mentioned that he has no interest in learning English neither online nor paper-based.

*Student E: The system is useful but it is difficult. I don't like English and I don't like it in the internet or book.*

**Question 2. Which part of the system did you find the most useful? (e.g., using online resources, post-reading activities, feedback, etc.) Why?**

Table 3.10

*Themes of the Second Interview Question*

	<b>Theme</b>	<b>Number of students</b>	<b>Percentage of the answers</b>
1	<b>Having access to the appropriate resources</b> Because of not having enough information about the available resources	26/31	83.8%
2	<b>Post-reading activities</b> Because of being additional practice, especially for vocabulary.	12/31	38.7%
3	<b>Keeping e-portfolio</b> Because of being able to see their achievements and review their works	11/31	35.4%
4	<b>Checking other e-portfolios</b> Because of its positive effect on motivation	6/31	19.3%

Table 3.10 shows that 83.8% of the students believed the reading materials section in which they could access the links to the appropriate websites was the most useful part of the system. They believed having access to the approved EFL websites

with authentic materials appropriate to their levels was very useful. They added that not only did they benefit from the reading materials, but they could also practice other language skills such as listening and writing in the specified websites.

***Student F:** I think the reading materials was [were] most useful for me. Before I don't [didn't] know the English websites and I don't [didn't] practice English online.*

***Student G:** Reading materials was very useful. I found a lot of interesting readings in the website about sport and science. I could read in my laptop at nights.*

Another common useful feature that the students mentioned about the system was post-reading activities. Twelve students (38.7%) believed that although doing post-reading activities took a lot of time, only reading the texts was not helpful to improve their English proficiency. They stated that post-reading activities were helpful to prevent them from forgetting the new words.

***Student C:** I also liked post-reading activities because I practiced new words and remembered them better.*

***Student I:** I hadn't enough time but I did reading activities because I could learn more and remember my words.*

The answers revealed that the students (35.4%) found creating e-portfolios and keeping a record of what they had done useful, too. They believed that they could learn from reviewing their previous works.

***Student J:** It was useful to have e-portfolio. I had folders for every week and I read my files many times to review my new words. This is my first English e-portfolio and I want to keep it.*

The last extracted theme for this question indicated the usefulness of having access to other students' e-portfolios. The students (19.3%) stated that checking their classmates' e-portfolios could maximize their motivation for language learning.

***Student K:** I think my friends' e-portfolio helped me very much. I check my friends' e-portfolios many times in week, and I also tried work hard and upload my e-portfolios like him.*

**Question 3. Which part of the system did you find less useful? (e.g., using online resources, post-reading activities, feedback, etc.) Why?**

Table 3.11

*Themes of the Third Interview Question*

	<b>Theme</b>	<b>Number of students</b>	<b>Percentage of the answers</b>
1	<b>Peer-feedback</b> First, because of not considering peer-feedback as a way to improve learning, and then because of not regrading themselves and their friends' proficient enough to give comments.	27/31	87 %
2	<b>Post-reading activities</b> Because of less outcome compared to the time spent on them.	4/31	12.9%

As presented in the table 3.11, the majority of the students (87%) found peer-feedback as the least useful activity in the web-based e-portfolio system. The students argued that they admired their friends' efforts for providing comments on their works, and in many cases they benefitted from their counterparts' comments. However, they believed that they could not make sure about the appropriateness of the friends' comments, and that it could be more useful if they individually received the instructors' comments in addition to their friends' comments.

***Student L:** I spent so much time on writing feedback and I had no time for studying myself.*

***Student M:** It was not useful to write comments and check my friend works because I did not learn myself from their e-portfolio.*

***Student O:** My friend write comments for me but I did not know the comments are right or no. I know teacher comments are right.*

***Student C:** I spent a lot of time writing comments for my friend, but my friend sometimes forgot to write comments and sometimes did not have good comments for my work.*

The results also indicated that some students (12.9%) could not find the post-reading activities useful. They argued that compared to the time they spent on doing activities, they were not able to make improvement.

***Student Q:** I like doing activities after reading but I wanted spend my time on something else like listening and learn more with listening than writing activities.*

*Student O: I always write activities after reading but my TOEFL ITP score is not changed. Activities are not good for TOEFL ITP, I want activities like TOEFL question.*

**Question 4. Which part of the system did you find the most challenging? (e.g., using online resources, post-reading activities, feedback, etc.) Why?**

Table 3.12

*Themes of the Fourth Interview Question*

	<b>Theme</b>	<b>Number of students</b>	<b>Percentage of the answers</b>
1	<b>Peer-feedback</b> First, because of being time-consuming and difficult to read peers' works and writing comments. And second because of not considering themselves proficient enough to give comments and point out errors.	26/31	83.8%
2	<b>Logging into the system and uploading files.</b> Because of the lack of skills and confidence to use computers	11/31	35.4%
3	<b>Post-reading activities</b> Because of taking a lot of time.	8/31	25.8%

The findings of this question are in close relation with the previous question. The recurring theme in the interview data (83.8%) showed that peer-commenting was the most challenging phase of working on the system for two reasons. First, the students believed providing weekly comments on their counterparts' works was very time consuming since they had to read through their friends' work very carefully.

Second, they stated that they did not consider themselves proficient enough to be able to provide appropriate comments on their friends' work and they did not feel comfortable to point out the existing errors since they were not sure about them.

***Student S:** I think peer-feedback was not very useful because I am not a teacher to [give] good comment for my friends.*

***Student T:** It was getting much time to read my friend portfolio and write comments and I do not know what comments are correct for my friend.*

***Student U:** My friend had many mistakes in her writing, but I was shy to write a lot of mistakes for her. I only wrote some mistakes.*

The results of these two questions revealed that (1) the students did not consider receiving their classmates' feedback useful, and that (2) they considered giving feedback challenging and time-consuming. Therefore, after figuring out the students' perceptions about peer-feedback the researcher tried to briefly examine the types of feedback provided by the students. Therefore, twenty-five of the students' personal webpages on the system were randomly selected for the analysis.

As mentioned in the section 3.2.2.3, the students were instructed about the different levels of feedback including self-level and task-level, and the different types of the content of the feedback including a) knowledge of results (KR) that only specifies whether the answer is correct or incorrect; b) knowledge of correct response (KCR) that indicates the incorrect answer together with the correct response; and c) elaborated feedback (EF). Consequently, the peer-feedback provided on the selected pages were categorized into the two levels and three content types. Table 3.13 demonstrates the results of the peer-feedback analysis.

Table 3.13

*Analysis of the students' interactions*

Student	Total number of interactions	Self-level comments	Task-level comments		
			KR	KCR	EF
<b>a</b>	12	4	3	5	0
<b>b</b>	16	3	5	8	1
<b>c</b>	11	3	2	6	0
<b>d</b>	17	5	3	9	0
<b>e</b>	12	3	1	8	1
<b>f</b>	14	3	3	8	0
<b>g</b>	14	2	1	9	0
<b>h</b>	15	4	1	10	0
<b>i</b>	13	3	3	8	0
<b>j</b>	12	3	2	7	1
<b>k</b>	16	4	2	10	0
<b>l</b>	14	5	1	8	0
<b>m</b>	14	4	2	8	0
<b>n</b>	15	4	1	10	0
<b>o</b>	13	3	2	8	1
<b>p</b>	13	4	3	6	0
<b>q</b>	12	2	2	8	0
<b>r</b>	13	3	1	9	0
<b>s</b>	14	4	2	8	0
<b>t</b>	13	4	1	8	1
<b>u</b>	12	3	2	7	0
<b>v</b>	12	5	2	5	0
<b>w</b>	8	4	2	2	0
<b>x</b>	13	3	2	8	1
<b>y</b>	15	4	1	10	0
<b>z</b>	17	5	3	9	0

Table 3.13 demonstrates the number of the students' interactions in their individual pages categorized into self-level (praise) and task-level (KR, KCR and EF). It should be noted that in several comment boxes, the students provided both self and

task level comments simultaneously, therefore, they were counted as two individual comments. As it was shown in the table, most of the students' comments were provided at the task level and they were mainly KCR types of feedback. Although the students believed that they could not make sure of the correctness of their own comments, they tried to provide as many corrections as they could. It was indicated that the smallest number of comments were elaborated feedback (EF) type. Elaborated feedback is considered the most difficult type of feedback that is mostly given by the teacher or a student with higher level of proficiency. However, the results revealed that some students made an effort to provide additional information and resources. Some samples of the students' comments are provided below:

- **Self-level comments**

Student z:

*Thank you for your well-organized portfolio. Your summary is simple and easy to understand. Good! but please write everything in English*

Student p:

*Good. Your portfolios summary is always interesting. And if you increase the volume of new words or expression, portfolio will be better.*

Student k:

*I read your portfolios of week 2. They are fascinating because of the pictures. I would like to imitate your portfolios. I could feel your high motivation for this activity from your portfolios of week 2. By the way, I was surprised you are a horseman!! Very coooooool!!!!!!!!!!!!!!!*



- **Knowledge of results (KR) type comments**

Student a:

*Your summary is only copy of some sentences in the text. So you need to illustrate with your own words. I think question number 3 is not correct form.*

Student u:

*You did not write correct meaning for word 'bill'*

Student i:

*You should write better summary. You made many mistakes in summary for text 'advice'!!*

- **Knowledge of correct response (KCR) type comments**

Student c:

*In your summary, Nasreddin's wife served first visitor in line 2 and Naresddin served second visitor a soup in line 5. I can't understand whether he or she served soup. Because in line 6, you wrote "Naresddin's wife brought some soup, but the visitor told him~". If his wife brought it, I think you should write "the visitor told her~".*

Student m:

*You wrote the almost same sentences in summary "Many boys like game and violence but many girls don't like. Boys like violence and girls don't like." If you can shorten the summary as much as possible, you should do. Moreover, you answered to Question No.2 "No, I'm not.", but you have better answer "No, I don't."*

Student g:

*On the 4th line in the summary in week 8 Animal Characteristic, It is written "animal cells are flexibility". "Flexibility" is a noun. And, "flexible" is an adjective. Therefore, I think that "flexible" is better than "flexibility".*

- **Elaborated feedback (EF)**

Student b:

*Good job again! But you should learn more about articles. In your summary, you said "the experts", nevertheless, I don't know who they are. Basically, you can't say "the something". Moreover, you have to say "the sea lion" in the second sentence because there is some explanation about it in the first line. I found a site where you can practice articles, so try doing it when you have time.*  
[http://www.impact-english.com/members/Grammar\\_Practice/Always/test-grammar/gr\\_prac\\_arts.htm](http://www.impact-english.com/members/Grammar_Practice/Always/test-grammar/gr_prac_arts.htm)

Student e:

*I think you need to increase sentences of summary "Reading 1". Because you don't write "Why does the scientist think that we need some kind of life system on another planet. So ~~~~" I want you summarize the essence of text. You can use this link to write better summary.*  
<http://www.english-at-home.com/business/how-to-write-a-summary/>

Student x:

*Good job! I want to mention two things. I think your summaries are organized properly. But the texts you read are short for you. So you may take advantage*

*of this site. In this site, you can check number of words you read.*

*[http://blog.livedoor.jp/n\\_shuyo/archives/65664359.html](http://blog.livedoor.jp/n_shuyo/archives/65664359.html)*

Among the students' interactions there were also several comments that did not fit in any of the categorizations, for instance, asking for being more organized to upload the files, and requesting to use better file formats for the portfolios.

Moving back to the table 3.12, it was indicated that the second challenging phase of using the system was logging into the system and uploading files. About 35% of the students mentioned that for some sessions at the beginning, they could not easily handle the system and create folders in their e-portfolios. They emphasized the importance of the access to the instructional PowerPoint slides since they often forgot the process and they could refer to the slides at any time.

***Student Q:** Many times I forgot my password and how to log in. I am not good with computers and at first I couldn't upload file and it was difficult.*

The final extracted theme for this question revealed that doing post-reading activities (38.7%) were another challenging part. The answers to this and the previous questions indicates that time was an influential factor on some students' attitudes towards the usefulness and difficulty of an activity.

***Student V:** I am very busy with my classes and I think doing activity after reading was difficult because it took a lot of time.*

**Question 5. How do you feel about using technology for language learning?  
(Easy/difficult, useful/useless, etc.)**

Table 3.14

*Themes of the Fifth Interview Question*

	<b>Theme</b>	<b>Number of students</b>	<b>Percentage of the answers</b>
1	<p><b>Helpful for language learning if it is accompanied by teachers' support</b> Because of being difficult to know about the useful technologies and their implementation for the purpose of learning.</p>	19/31	61.2 %
2	<p><b>Easy and useful for language learning even individually without teachers' support</b> Because of being accustomed to use learning technologies</p>	8/31	25.8%
3	<p><b>Not good and not useful</b> Because of the side effects of using technology on health, and their preference for traditional paper-based language learning.</p>	4/31	12.9%

The findings of this question show the importance of teachers' support on the students' attitudes towards the use of technology for language learning. About 61 % of the students believed that they would feel comfortable using technology if they are supported by the teachers. The reason was that the students did not have enough information about the useful technologies for language learning, nor did they know how to implement the technology for language learning.

**Student X:** *I cannot use technology for language learning without teacher, I don't know good websites and application. This system was my first time of technology for English learning.*

**Student T:** *I like using technology to learn English but it is difficult to find websites and read myself.*

Among the students, 25.8% stated that they are used to implementing technological tools for language learning independently. They mentioned some mobile phone applications and online language learning websites that they use frequently on their own. They believed that technology makes learning easier and faster.

**Students C:** *I always use my laptop and mobile phone for English practice. I have two English dictionaries on my mobile phone, at nights I watch English movies and use dictionary to find the words.*

**Student W:** *It is very useful and I use many technologies to learn English. I always read English new online. I listen to English podcasts and I watch American movies with Japanese subtitle.*

Finally, a few students (12.9%) stated their negative attitudes towards the use of technology for language learning due to its harmful side effects on health, especially eyes.

**Student Z:** *I like to read paper books not e-book, because computer screen is bad for my eyes.*

**Student D:** *If I use computer and mobile phone, my eyes gets bad pain and I should to change my glasses very soon.*

**Question 6. Do you like to continue using the web-based e-portfolio system? Why?**

Table 3.15

*Themes of the Sixth Interview Question*

	<b>Theme</b>	<b>Number of students</b>	<b>Percentage of the answers</b>
1	<b>Yes,</b> because of being able to see their TOEFL test score improvements.	21/31	70.9 %
2	<b>Yes,</b> because of having interest in keeping e-portfolio	5/31	16.1%
3	<b>No,</b> because of lack of time	2/31	6.4%
4	<b>No,</b> because of no interest in using technology and language learning	2/31	6.4%

The findings here indicate that the majority of the students showed interest in continuing their practice through the web-based e-portfolio system because they were satisfied with their accomplishments on TOEFL ITP® test (70.9%), and they liked having a personal e-portfolio (Google Drive) containing their works during one semester (16.1%).

***Student B:** I need to get good score of TOEFL ITP. E-portfolio and my friend help me get good score.*

***Student W:** I continue the e-portfolio. I want to keep all my folders and I read them again and again.*

On the other hand, four students preferred not to use the e-portfolio system after the course was finished due to the lack of time and lack of interest in using technology and language learning.

*Student D: I like the e-portfolio system but I don't have time to study English.*

*Student Z: E-portfolio system is very good but I don't like learning English. I like to learn Italian.*

### **3.4. Discussion**

This study was conducted to deepen researchers' and teachers' understanding of the importance of out-of-class language learning contexts as one of the essential modes of the blended learning environments. Current attempts in CALL and, in particular, in blended learning environments show that there are two important issues in this area: (1) it is the teachers' lack of attention to self-study modes, and (2) the students' lack of intention to continue self-study, with or without the self-study mode.

The first research question of this study aimed at investigating the importance of the third mode of the blended learning environment on the enhancement of the students' reading proficiency, in this case through a developed web-based e-portfolio system. The findings of this study revealed that the reading proficiency of the students in the experimental group significantly improved at the end of the term compared to their own proficiency level at the beginning of the semester and compared to the proficiency level of the comparison group students. In this study, the students of the comparison group were also provided with the same online reading resources and were advised to continue reading practice outside of the classroom, but, they did not make

any significant improvement in the reading section of TOEFL ITP® test. Therefore, it can be concluded that OCLL results in the students' significant improvement if it is conducted in a well-organized OCLL context.

The results of this study leads support to some prior studies in which the development and implementation of OCLL modes supported learners' language learning accomplishments (Chau & Cheng, 2010; Gerbic et al., 2011; Ishikawa et al., 2007; Leese, 2009; Lyutaya, 2011; Ziegler & Moeller, 2012). For instance, in the study conducted by Ishikawa et al. (2007) inside and outside of the classroom language learning were integrated in a single virtual learning environment. Using self-evaluation system, the researcher tried to improve the students' TOEIC test scores and their self-regulated learning. The overall results indicated that self-evaluation system had been useful for enhancing the learners' score and SRL.

Although the main focus of this study was on the technology-enhanced self-study contexts, some other studies indicate the effectiveness of OCLL programs even without the use of technology. As an example, Tokuda et al. (2015) investigated the effect of an extra-curricular program with the aim of improving the students' English language proficiency and intercultural awareness. The findings of this study also indicated that the program could successfully increase Japanese students' motivation to learn English as well as their proficiency level indicated by their TOEFL ITP® test. Consequently, it should be emphasized that it is not only the use of technology which leads to having successful OCLL, but it is a well-developed and clearly-defined OCLL environment that helps the students' improvement.

However, as it was explained from the beginning, this study was conducted using a web-based e-portfolio system as a technological tool to support the students'



out-of-class reading practice. In line with the previous studies that used e-portfolios as a means for the enhancement of the students' language proficiency or self-directed language learning (Chau & Cheng, 2010; Fukuda et al., 2014; Gerbic et al., 2011; Yastibas & Yastibas, 2015; Ziegler & Moeller, 2012), the findings of this study also reflect the effectiveness of the developed e-portfolio system for the improvement of the students' reading proficiency.

Unlike the expected progress in the students' achievements and final scores, the use of electronic devices such as e-portfolios may sometimes only result in the students' perception about the intended treatment and the tool itself rather than their actual learning achievements. This is well illustrated in the study by Abbaszad Tehrani (2010). In his study, the use of e-portfolios with the aim of improving the students' writing skill did not indicate any significant difference between the post-test scores of the experimental and the comparison group. However, examining the students' attitudes towards writing skill and the e-portfolios revealed their positive attitudes. This study could successfully reflect the ineffectiveness of the e-portfolios on the students' final scores on account of the presence of the comparison group. But, there are several studies that lack a comparison group to be able to certainly attribute the students' achievements to the use of electronic devices. With the presence of the comparison group in this study in addition to testing the homogeneity of the two groups at the beginning and keeping the contexts as similar as possible for the two, it is certain that the students' reading proficiency improvement is attributed to the implemented web-based e-portfolio system.

Similar to other studies that investigate the attitudes of the students about a newly implemented device or technique, the second research question of this study

tried to find out the students' attitudes towards the effectiveness of the web-based e-portfolio system with regards to the different aspects of the system such as content of the system, peer-feedback, and post-reading activities. As explained in the study, this investigation was done through a semi-structured interview that focused on some central issues. In general, the findings indicated that the students held positive attitudes towards the effectiveness of the system after some sessions.

The reason why the students could not consider the web-based e-portfolio system useful from the beginning may reflect the major problem of Japanese students upon entering universities. Because of inadequate ICT engagement in high school education, the majority of the students have very low confidence for using digital technologies for educational purposes at university (Cote & Milliner, 2016; Doyle & Parrish, 2012; Gobel & Kano, 2014; Lockley & Promnitz-Hayashi, 2012). This issue can also be understood in the study of Doyle and Parrish (2012) that Japanese students had very little preference for using electronic devices for learning English beyond the classroom, and instead they felt more comfortable with the traditional paper-based methods that were designed for the standardized tests such as TOEFL or TOEIC. As it was revealed in this study the difficulty of using the system could even influence the students' perception about the usefulness of the system, too. Consequently, we can say that the effective implication of learning technologies is highly related to the simplicity of the technology or providing enough instruction in the first place.

As it was revealed through the interviews, the students emphasized the importance of the teachers' role in providing them with the available resources. In the study conducted by Lai and Gu (2011), one of the major barriers to the students' out-of-class use of technology to self-regulate their language learning was their lack of

information about the useful materials and resources. Inozu et al. (2010) argued that it was not easy for the students to initiate their OCLL individually and they tended to rely on their teachers to support them.

More importantly, this finding maximizes the significance of developing appropriate OCLL contexts. The students of the experimental group found the introduced resources as the most beneficial factor for their final progress and this is while the comparison group students were also provided with the same resources, but they did not show a significant improvement compared to the experimental group. Therefore, we can conclude that the appropriate resources lead to better outcomes if they are offered in a well-designed OCLL context. And as stated by Wittaker (2013) blended learning environments should be developed with the combination of three major modes: F2F, CALL, and self-study mode.

As stated previously, the potential of sharing individual works in order to enable collaboration is one of the remarkable features of effective e-portfolios (Barret, 2007; Hughes, 2005; Yastibas & Yastibas, 2015). Similar to some previous studies (Abbaszad Tehrani, 2010; Barbera, 2009; Chau & Cheng, 2010; Fukuda et al., 2014; Nicolaidou, 2013), the web-based e-portfolio system in this study also enabled teacher- and peer-feedback. Though the students' performance on the system indicated regular mutual interactions, the recurring theme in the interview data were that the students considered peer-feedback as the less useful and most challenging feature of the system.

The related literature demonstrated that there is no specific pattern for the findings of studies that investigated students' perceptions towards peer-feedback. This study classifies the findings of some previous studies into two groups: one verifying the effectiveness of peer-feedback and the other one questioning its effectiveness. On

the one hand, the use of net-folio (i.e., another name for e-portfolio) was effective to encourage the students' views towards teacher and peer-feedback (Abbaszad Tehrani, 2010). The attitudes questionnaire indicated the students' preference for teacher-feedback (56% *agree* and 31% *strongly agree*) to peer-feedback (47% *agree* and 15% *strongly agree*). However, the students showed generally positive attitudes towards both types of feedback (Abbaszad Tehrani, 2010). In another netfolio study by Barbera (2009), the students made a significant progress and attributed their progress to the possibility of exchanging works and comments with their peers. Besides, Nicolaidou (2013) found that peer-feedback in an e-portfolio study could positively influence the students' outcomes and the students believed that though their friends' comments were not always correct, they were useful.

On the other hand, in a study in China that investigated the effectiveness of e-portfolios for independent learning (Chau & Cheng, 2010), it was found that the students emphasized the usefulness of teacher-feedback for learning, but they hardly had peer-feedback and they considered it less significant. In another study by Ellison and Wu (2008), it was figured out that students enjoyed peer feedback, but did not hold positive attitudes towards its effectiveness. The students emphasized the importance of the teachers' instruction to enable them to provide effective feedback on their friends' work.

Similar to the results of the second group of studies in which the students could not perceive the effectiveness of peer-feedback, the students in the present study questioned the effectiveness of their classmates' comments. The researcher assumes there may be two principle reasons for this finding. First, most negative attitudes of the students towards peer-feedback may be related to the Japanese students' cultural

beliefs and educational backgrounds. Similar to many Asian students, Japanese EFL students are mainly accustomed to the teacher-centered learning environments (Hirata, 2011), and peer-supported language learning is not highly valued by them. The second reason that also reflects the first reason is that since the students are largely dependent on their teachers, they are unwilling to accept or rely on their classmates' feedback. Table 3.13 (see p.74) demonstrated that the majority of the students' feedback were knowledge of correct response (KCR) type of feedback at the task level (Hattie & Timperley, 2007; Shute, 2008). The students tried not only to find the existing errors, but to provide the correct answers, and in a few cases they even provided additional resources. However, peers still had doubts about the appropriateness of the feedback they received that prevented them from realizing the advantages of peer-feedback.

Overall, as observed in the context of the present study, the large number of students in classes made it nearly impossible for teachers to provide regular feedback on individual student's works. In addition, considering the effectiveness of peer-feedback on the students' outcomes (Abbaszad Tehrani, 2010; Barbera, 2009; Nicolaidou, 2013), the promotion of the quality of peer-feedback and changing the students' attitudes towards peer-feedback is of crucial importance in online learning environments, especially for learning beyond the classroom.

Another common idea the students expressed in the interviews was about the usefulness of post-reading activities. Even though the students thought post-reading activities were time consuming and a bit challenging, they performed them regularly. Lyutaya (2011) conducted a study on extensive reading program in which she combined extensive reading with writing tasks through using a "reading log". The findings of her study revealed that the integration of reading and writing skills could

help the students better understand the nature of reading and English language in general. Though in the present study the direct effect of the post-reading activities on the students' final scores was not measured, the students believed that doing post-reading activities had been beneficial for them.

The final findings of this study showed that the majority of the students showed positive attitudes towards using technology for language learning, mainly if it is accompanied by teachers' support and guidance. More importantly, the last question of the interview aimed at finding if the students intended to use the e-portfolio system even after the course was finished. Enhancing students' intention to continue using a technological device regularly is of significant importance to maximize the effectiveness of technological tools for language learning both inside and outside of the classroom (Lai et al., 2017; Lee & Lehto, 2013; Mobarhan et al., 2014; Reinders, 2014; Richards, 2015).

Relevant literature shows that similar to many other technological tools, e-portfolios can be used for several purposes including teaching, learning, and assessment of different language skills in addition to the development of self-regulated learning (Barrett, 2007). However, it is the continuous usage of any learning technologies that predominantly guarantees its effectiveness. In the present study, the students expressed their positive responses to continue using technology after the course, particularly because of their observable final score improvement, which is regarded as an extrinsic motivator. However, it is worth explaining that how intrinsic motivation may explain their intention to continue their OCLL using technology (in this case the web-based e-portfolio system) even after the course is finished. The second study of this research concentrates on how the students' intrinsic motivation

can predict their intention to use learning technologies for language learning outside of the class rather than external motivators.

# **Chapter 4:**

## *Study 2*



## **4.1. Introduction**

In the previous study, it was indicated that the web-based e-portfolio system, specifically designed for out-of-class reading practice could significantly improve the students' final achievements. However, this is not the only intended goal of any technology-enhanced out-of-class language learning (OCLL). The final success of an OCLL context is achieved through the enhancement of the students' intention to continue long time autonomous learning after the course is finished.

As stated previously, the cognitive theories of motivation and action specify that being motivated to act equates to having an intention to engage in an action (Deci, 1975). The mutual relationship between learners' motivation and their intention identifies the significant effect of motivation on intention and the other way around. As a consequence, the enhancement of learners' motivation can possibly be an effective factor to increase their intention as well (Deci, Vallerand, Pelletier & Ryan, 1991). Given that the effective technology-enhanced OCLL is mainly reliant on learners' motivation, the self-determination theory (SDT, Deci & Ryan, 1985), as one of the most comprehensive theoretical approaches to human motivation, can provide a central and fundamental framework for this study.

The self-determination theory (SDT) is commonly employed as a guiding framework to reinforce intrinsic motivation through the fulfillment of three innate psychological needs for competence, autonomy, and relatedness (Deci & Ryan, 1985; Deci & Ryan, 2000). Therefore, this study tests a hypothesized model of the effect of the three motivation determinants defined by SDT on the students' intention to continue OCLL. The model aims to investigate how the satisfaction of the three motivational needs defined by SDT (i.e., perceived competence, perceived autonomy,

and perceived relatedness) predicts the students' intention towards technology-based language learning beyond the classroom borders, as well as their actual out-of-class achievements using the successfully implemented web-based e-portfolio system. The third research question of this study will be answered in this section.

3. Do the determinants of SDT (i.e., perceived competence, perceived autonomy and perceived relatedness) predict Japanese EFL students' intention to continue OCLL using the web-based e-portfolio system and their actual achievements?

#### **4.1.1. Research Model**

In order to find the answer to this research question, a hypothesized model was proposed at the beginning of the study. Based on SDT, previous studies have presented several models indicating relationships between individuals' achievements and satisfaction of their basic needs in different contexts. For instance, Chen and Jang (2010) tested a model of self-determination theory in two online teaching certificate programs to test online learners' motivation. Yoon and Rolland (2012), drawing on SDT, investigated a model of the effect of needs satisfaction on knowledge-sharing behaviors in virtual communities, and Zhou (2016) examined a model of SDT integrated with the theory of planned behavior for the learners' intention to use massive open online courses (MOOCs) for learning. However, there is no research on the relationship between the satisfaction of the basic physiological needs and language learners' intention towards autonomous technology-enhanced out-of-class study.

Accordingly, drawing on SDT, the research model proposed in the present study tests how the satisfaction of these needs can predict the students' intention to further OCLL using technology, and their actual out-of-class performance, respectively (Figure 4.1).

Some researchers argue that learners' engagement in doing activities is highly affected by self-determination and satisfaction of their innate needs for competence, autonomy, and relatedness (Grolnick, Ryan, & Deci, 1991; Chen & Jang, 2010; Roca & Gagne, 2008; Urdan & Turner, 2005). Vallerand and Bissonnette (1992) argue the positive effect of self-determination on the student's continuance intention to achieve their academic goals. When learners have a sense of competence in performing an activity on their own; feel they are the origin of their own decisions; and feel connected to other group members, their intention to continue would be enhanced (Deci & Ryan, 1985; Roca & Gagne, 2008). Hence, based on the aforementioned concepts, the hypotheses one, two and three of the research address the intention of the students to continue OCLL as the product of self-determination indicators.

**H1.** Students' perceived competence positively predicts their intention for technology-enhanced OCLL.

**H2.** Students' perceived autonomy positively predicts their intention for technology-enhanced OCLL.

**H3.** Students' perceived relatedness positively predicts their intention for technology-enhanced OCLL.

Previous studies reveal that satisfaction of the psychological needs could be positively related to the individuals' outcomes (Jeno & Diseth, 2014; Chen & Jang,

2010). As a result, the hypotheses four, five, and six of this study propose that perceived competence, autonomy, and relatedness can positively predict the students' actual achievements in technology-enhanced OCLL.

**H4.** Students' perceived competence positively predicts their OCLL achievements.

**H5.** Students' perceived autonomy positively predicts their OCLL achievements.

**H6.** Students' perceived relatedness positively predicts their OCLL achievements.

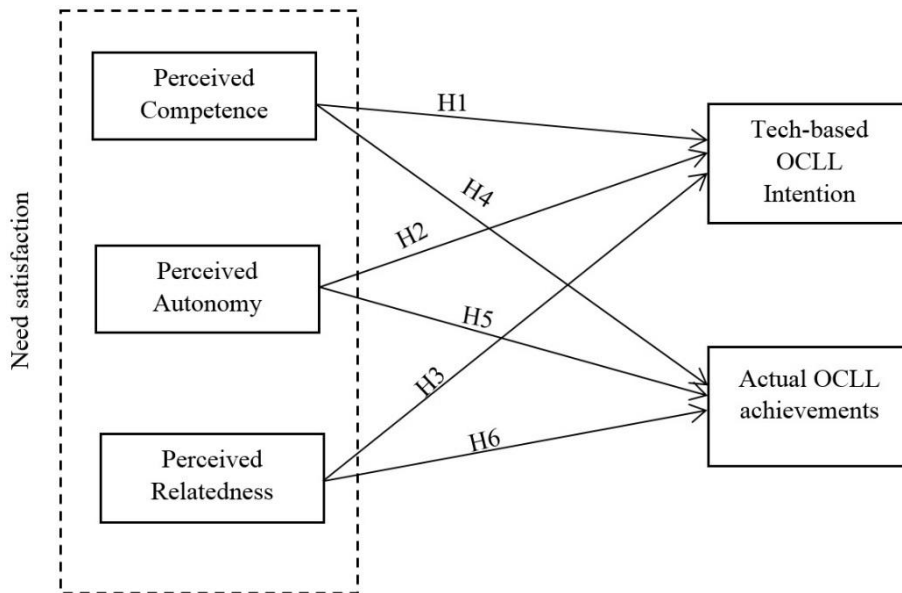


Figure 4.1. Hypothesized model of this research

## 4.2. Methodology

### 4.2.1. Participants

Similar to the previous study, this study was conducted at Tohoku University. The participants were EFL non-English major undergraduate students attending general English classes. A total of 164 students majoring in engineering (N=32), law (N=56), and science (N=78) took part in the study (of whom 109 students were the participants of study 1). Students' age ranged from 18 to 21 ( $M=18.90$ ,  $SD=.87$ ), of whom 135 (82.31%) were male. The majority of the students were freshmen (81.7%) and the rest were sophomores. All the participants signed an informed consent form that explained the aim and procedure of the study at the beginning of the semester.

### 4.2.2. Instruments and Materials

In order to achieve the purpose of this study, the following instrument and material were used.

#### 4.2.2.1. Online Questionnaire

The data were collected using an end-of-the-term online questionnaire in which the items were measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The items were adapted from relevant measures used in previous studies with a few modifications in wordings in order to better reflect our target technology and domain.

Students' perceived competence was measured using six items adapted from the intrinsic motivation inventory (IMI; McAuley, Duncan, & Tammen, 1989), of

which a sample item was “I think I was pretty good at learning English beyond the classroom using technology”. Students’ perceived autonomy was assessed through four items selected from Standage, Duda, and Ntoumanis (2005), with a sample item of “I felt a certain freedom of action in learning English beyond the classroom using technology”. To measure students’ perceived relatedness five items from South’s (2006) sense of community instrument were used with a sample item of “I felt that other classmates had similar goals to mine in learning English beyond the classroom using technology”. Students’ intention to continue technology-enhanced OCLL was measured using three items adapted from Venkatesh, Morris, Davis, and Davis (2003), of which a sample item was “I intend to continue learning English beyond the classroom using technological devices (e.g., e-portfolio system)”. Finally, students’ actual usage of the e-portfolio system for OCLL was measured by the total number of the eligible e-portfolio files in each student’s personal Google Drive, in addition to the number of the student’s interactions on the e-portfolio website.

It is worth noting that the criteria for eligibility of the e-portfolios were (1) the files that were uploaded properly and could be opened and read and (2) the files that were in accordance with the instructions and included at least one reading assignment with the link to the passage and post-reading activities. The files that could not be opened, the blank files, and the files including only the title of a passage were excluded from the analysis.

The items of the questionnaire were adopted from previous studies and believed to be reliable and valid. However, due to the modifications, the questionnaire was reviewed by two experts in the field and piloted with 31 students to confirm that the items were clear and easy to understand. In addition, the reliability of the constructs

with the data of this study were confirmed through Cronbach's alpha reliability analysis (Table 4.1). The questionnaire was provided in English, and all the items are presented in Appendix H.

#### *4.2.2.2. Web-based e-portfolio System*

In addition to the online questionnaire as the data collection instrument, the web-based e-portfolio system was used as the treatment material of the study. For more information about the web-based e-portfolio system, see section 3.2.2.3.

### **4.3.3. Design**

This study was conducted through a quantitative survey-based method for developing a structural model.

### **4.3.4. Procedure**

In the context of the present study, similar to the first study, general English classes were held twice a week, 90 minutes for each session, and the semester lasted for almost 4 months. The participants practiced reading skill of TOEFL ITP<sup>®</sup> test in CALL classrooms using an interactive blended English language learning enhancement system (iBELLEs, Okada & Sakamoto, 2015). The participants continued practicing reading beyond the classroom through the web-based e-portfolio system.

#### 4.3.5. Data Analysis

The analysis was conducted through structural equation modeling (SEM) approach to test the causal relationships between the variables in the research model. This analysis was conducted through several steps as follows:

The internal consistency of the subscales of the questionnaire was examined using Cronbach's alpha reliability analysis. Exploratory factor analysis (EFA) using the maximum likelihood (ML) technique was conducted to test the appropriateness of the items of each subscale (factors) of the research questionnaire. The primary advantage of ML is that it allows for the computation of a wide range of indexes of the goodness of fit of the model . . ." (Fabrigar, Wegener, MacCallum, & Strahan, 1999, p. 277). Confirmatory factor analysis (CFA) was conducted to test some initial measurement models to ensure that the data of this study could support the proposed relationships, and to confirm the reliability and validity of the constructs in the measurement model. Composite reliability (CR) was computed to examine the reliability of the constructs in the measurement model which, according to Bagozzi and Yi (1988), should exceed 0.6. Convergent and discriminant validity were applied and tested according to Fornell and Larcker (1981), in which the convergent validity of the constructs are confirmed when all the items have factor loadings higher than 0.6 (Hulland, 1999), and discriminant validity is verified when the square root of the extracted average variance (AVE) greatly exceeds the correlation between each construct with the other constructs. Finally, path analysis was conducted to investigate the multivariate relations between the constructs in the hypothesized model using IBM® SPSS® AMOS (Version 23).



To estimate how well the initial model fits the data, according to Hair, Black, Babin, and Anderson (2010), the following five goodness of fit indices were evaluated: chi-square coefficient ( $\chi^2$ ), comparative fit index (CFI), Tucker-Lewis Index (TLI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA). A good fit will be achieved by insignificant chi-square test results, a CFI and a TLI value greater than .95, an SRMR and an RMSEA value less than .08 (Hair et al., 2010). The final structural model was created and analyzed based on Kline's (2011) suggestion to use parcels. A parcel is defined as "a total score across a set of homogeneous items each with a Likert-type scale. Parcels are generally treated as continuous variables" (p. 179). Finally, the actual usage was added as the last continuous variable to the final structural model, and the paths were analyzed.

### **4.3. Results**

The descriptive data of the questionnaire items including mean, standard deviation, factor loading, composite reliability, and Cronbach's alpha coefficient are presented in Table 4.1. Since the low factor loading of item 6 in the perceived competence scale caused some cross loadings in the EFA, this item was removed from the measurement scale and the rest of the analysis. In line with our expectation, the results of EFA indicated that four constructs were extracted with the total variance of the 63.58%. As represented in the table, the results of the Cronbach's alpha reliability analysis indicated high internal consistency among the items of each subscale ( $\alpha > 0.8$ ). Composite reliability of each construct resulted in a good level of reliability for each construct (CR > .75). The satisfactory factor loadings (higher than 0.6) of all the items

of the questionnaire confirmed the convergent validity of the constructs (Hulland, 1999). Correlations represented an adequate difference between the square root of the variance (AVE) and all other correlations for each construct, thus, the discriminant validity of the constructs was verified (Table 4.2).

Figure 4.2 presents the results of the structural model with the standardized path coefficients. The fit indices suggested that the research model had an acceptable fit to the data,  $\chi^2(125) = 165.843$ , ns, CFI = .973, TLI = .967, SRMR = .04 and RMSEA = .04. The paths in figure 2 indicates that intrinsic motivation determinants of SDT, perceived competence ( $\beta = .70, p < .01$ ), perceived autonomy ( $\beta = .37, p < .01$ ), and perceived relatedness ( $\beta = .16, p < .01$ ) could positively influence the students' intention towards technology-enhanced OCLL, therefore, hypothesis 1-3 was supported by the research model. These determinants explained 43% of the variance in technology-enhanced OCLL and 27% of the variance in the students' actual OCLL performance. The students' actual performance could be predicted by their perceived competence ( $\beta = .25, p < .01$ ) and perceived autonomy ( $\beta = .16, p < .05$ ), supporting hypothesis four and five. However, perceived relatedness could not significantly influence students' actual performance ( $\beta = .11$ , ns), and hypothesis six was not supported by the model.

Table 4.1

*The descriptive statistics of the measurement constructs*

Construct	Item	Mean	SD	Factor loadings (CFA)	Cronbach $\alpha$	CR
Perceived Competence					0.89	0.89
	PComp_1	4.87	.880	.951		
	PComp_2	4.74	.885	.893		
	PComp_3	5.09	.882	.721		
	PComp_4	5.01	.943	.685		
	PComp_5	5.02	.953	.612		
	PComp_6	4.28	.859	.591		
Perceived Autonomy					0.81	0.82
	PAut_1	4.68	.978	.774		
	PAut_2	5.23	.963	.758		
	PAut_3	4.53	1.024	.744		
	PAut_4	4.70	1.018	.632		
Perceived Relatedness					0.91	0.91
	PRel_1	4.35	.898	.901		
	PRel_2	4.29	.953	.880		
	PRel_3	4.12	.782	.823		
	PRel_4	4.15	.826	.819		
	PRel_5	4.21	.827	.691		
Intention					0.88	0.79
	Int_1	6.01	.641	.846		
	Int_2	5.83	.706	.758		
	Int_3	6.15	.578	.623		

Table 4.2  
Correlation matrix and average variance extracted

Construct	Perceived Competence	Perceived Autonomy	Perceived Relatedness	Intention
Perceived Competence	<b>0.62<sup>a</sup></b>			
Perceived Autonomy	.405	<b>0.53</b>		
Perceived Relatedness	.350	.335	<b>0.68</b>	
Intention	.347	.264	.260	<b>0.56</b>
Actual Performance	.359	.285	.251	.076

Note. <sup>a</sup>Square root of average variance extracted (AVE).

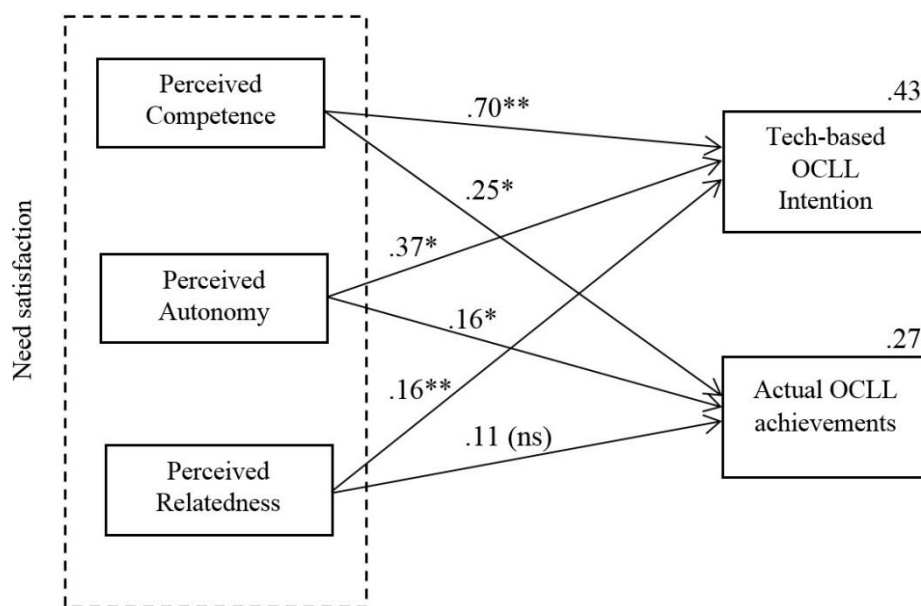


Figure 4.2. Final structural model (standardized path coefficients)

#### **4.4. Discussion**

The present study was conducted to provide an empirical testing of SDT in a technology-enhanced OCLL context of a Japanese EFL blended learning environment equipped with a web-based e-portfolio system. In line with SDT, the final research model indicated that satisfaction of the learners' basic needs for competence, autonomy, and relatedness that facilitate intrinsic motivation (Deci & Ryan, 1985) positively influenced the students' intention to carry out technology-enhanced OCLL. Forty-three percent of the variance of the students' intention for OCLL was explained by the determinants of SDT, which suggests that SDT can be an appropriate theoretical framework for technology-enhanced OCLL. This result is in line with previous studies that approved the supporting effect of basic needs satisfaction in SDT domains (Baard et al., 2004; Deci et al., 2001; Roca & Gagne, 2008). Therefore, if instructors want to increase students' intention to carry out independent learning beyond the class, they can focus on creating OCLL contexts that make students feel their three basic psychological needs are fulfilled. The values figured out in the research model demonstrated the significance degree of these needs from the students' perspectives.

The findings of the structural model showed that perceived competence had the strongest effect on the students' intention to continue technology-enhanced OCLL as well as their actual achievements. Therefore, the most important concern is to invest time and effort in finding ways to help students feel competent and capable of achieving their goals independently. Instructors need to choose or design technological devices in accordance with the students' basic technological abilities and educational levels in order to keep them feel competent through the process. Although OCLL takes place beyond the classroom and in many cases beyond the teachers' responsibilities,

students require to receive teachers' constant support, especially at the beginning stages of learning. Deci and Ryan (2010) argue that teachers' positive feedback as a verbal reward would also make students feel capable of accomplishing their objectives. Hence, the present researcher suggest that creating a virtual environment in which not only instructors, but also students will be trained and encouraged to provide positive feedback on the other community members' performance might possibly maximize learning intention. Moreover, students' responsibility for regular feedback on the other users' works may be another way to promote their confidence in their abilities, and consequently facilitate their sense of competence.

The results of the present study also reflected the strong association between perceived autonomy and the students' intention towards learning in addition to their final achievements. In line with previous research, students' sense of control over their own learning process improves their willingness to continue learning independently (Deci & Ryan, 1985; Vallerand, 1997). Even though the students require instructors' support for OCLL, the findings indicated that they valued their sense of autonomy as their second essential need. Consequently, instructors require to find ways in which they would be able to support students and at the same time give them some degree of responsibility to control their own learning. The present researcher suggest that the sense of autonomy might be promoted in different ways, for instance, a) assisting students to independently find their own proficiency level and following that offering them the chance of choosing among a wide range of learning materials and activities based on their own levels, b) guiding them through regular evaluation of their own achievements, and c) supporting them through goal developments based on their self-evaluations. In this way the students would also be prepared to gradually transfer from

the teacher-supported environment to their personal learning environments (Reinders, 2014).

Although the third motivation determinant (i.e., perceived relatedness) is not considered as a crucial predictor as perceived competence and perceived autonomy for the intrinsic motivation (Deci & Ryan, 2010), the findings of this study revealed that it could positively and significantly influence the students' intention for OCLL, though with less degree of importance. The significant path from perceived relatedness to learning intention suggests that feeling connected to instructors and other classmates even outside of the classroom is likely to facilitate students' intention to continue learning. Since this learning takes place beyond the class, where students may be in different places and at different time, belonging to a community of other members who share the same learning process and the same learning goals maximizes learning intention. Therefore, instructors can bring the students together into a shared virtual space, so that not only they feel connected to other classmates but they are also able to observe others' accomplishments and at the same time be observed and valued by others.

Furthermore, the model indicated that the students' actual OCLL achievements were explained by SDT in which 27% of the variance of their performance was defined by perceived competence and perceived autonomy. Although the sense of relatedness may positively predict the students' intention for OCLL, contrary to our expectations and previous studies (Jeno & Diseth, 2014; Chen & Jang, 2010), the students' actual achievements were not influenced by their perceived relatedness. Since relatedness positively influenced the students' OCLL intention, it was expected that it could in turn influence the final achievements. It should be highlighted that there might be different

reasons for this finding.

The present researcher assumes that the first reason may be related to the features associated with the implemented web-based e-portfolio system. The design of the system emphasized the sense of connectedness in addition to the individuality of the students by having an individual e-portfolio (Barbera, 2009; Barrett, 2006, 2007; Lorenzo & Ittelson, 2005). Barbera (2009) states that although e-portfolios are effective learning tools, the individual nature of conventional e-portfolios causes some restrictions to learning. In the present e-portfolio system, all the students were connected to each other on the website, followed the same process of learning, interacted regularly, and influenced each other's performance. However, students identified their own learning progress with their own distinct learning styles in their personal e-portfolios. Therefore, the students' performance was not significantly influenced by the other community members. In other words, despite the collaborating environment offered in the present system, the individual nature of the e-portfolio was dominant.

The second might be related to the students' language proficiency level. The initial language proficiency test indicated that 83% of the students were at the same level of English language proficiency (B1-B2, according to CEFR). Therefore, it is probable that due to the same proficiency level, students' relatedness could not significantly influence their actual achievements. As it was figured out in the first study, even though the students mainly received knowledge of correct response comments (KCR), they could not easily rely on their friends' comments as they did not consider their friends proficient enough for giving comments and providing corrections.

Similar to the explanation of the students' nearly negative perception about



peer-feedback in the first study, the third reason might be related to the Japanese students' cultural beliefs and educational system. Similar to many Asian students, Japanese EFL students are accustomed to the teacher-centered learning environments (Hirata, 2011). Therefore, peer-supported language learning is not highly valued by the students since they only consider a teacher as the central figure in the actual classroom or virtual environments.

In summary, the current study could successfully confirm the relationship between self-determination theory indicators and the students' intention towards technology-enhanced OCLL. It demonstrated the importance of focusing on the motivational aspects to increase learning intention in self-study contexts. Consequently, researchers interested in studies in technology-enhanced OCLL domains can implement SDT as the theoretical framework of their research. The results also contribute to researchers' and teachers' understanding of Japanese EFL students' perceptions about the prominence of their psychological needs for competence, autonomy and relatedness, among which competence and autonomy are the first and the second highly valued needs respectively.

# **Chapter 5:**

## *Conclusions*

## 5.1. Overview

*“There are two important dimensions to successful second language learning: what goes on inside the classroom and what goes on outside of the classroom”*  
(Richards, 2015, p.1)

The present study was conducted to highlight the importance of out-of-class language learning (OCLL) as one of the essential modes of blended learning environments. The related literature manifests that unlike the vast number of proposed theories and practical studies for teaching a foreign language inside the classroom, there is no specific areas of study that particularly concentrate on OCLL contexts (Benson, 2011b). Incorporating learning technologies into the face-to-face classrooms has effectively improved the quality of the field of language learning (Neumeier, 2005). However, these efforts are mainly restricted to the inside classroom contexts and hardly move beyond the actual classroom walls. Blended learning environments that comprise of two delivery modes of face-to-face and computer-assisted language learning (CALL) lack the third complementary mode of OCLL (Benson, 2001; Borrero & Yeh, 2010; Whittaker, 2013).

This research reveals that successful language learners are the ones who benefit from learning opportunities both inside and outside of the classroom. OCLL opportunities largely affect the learning process and outcomes (Chang, 2007; Lai & Gu, 2011; Pearson, 2004; Pickard, 1996; Sundqvist, 2011), and this effect can be maximized with the appropriate use of information and communication technologies (ICTs). The inherent potential of ICTs guarantees their usefulness for OCLL. However, regarding the context of the present study, lack of digital literacy of Japanese students and their difficulty to implement technology for the purpose of learning (Cote &

Milliner, 2016; Doyle & Parrish, 2012; Gobel & Kano, 2014; Lockley & Promnitz-Hayashi, 2012) it is certain that teachers are responsible to introduce or design effective OCLL contexts.

On the other hand, it is not only the presence of OCLL modes that guarantee the students' language learning achievements, but it is the students' intention to continue using the available OCLL modes. As its name indicates, OCLL refers to the students' almost autonomous attempts to learn the target language beyond the classroom and in majority of cases the achievements are not observed or evaluated. Therefore, the students' intention to independently continue using technology regardless of the presence of an actual classroom and a teacher is of crucial importance (Lai, Li, & Wang, 2017; Lee & Lehto, 2013; Mobarhan, Majidi & Abdul Rahman, 2014; Reinders, 2014; Richards, 2015).

The two central concerns—the limited efforts to attend to the development of OCLL and lack of students' intention to continue language learning beyond the classroom—directed this study through three research questions:

1. Is there any significant difference between the proficiency of the students who practice reading outside of the class through the web-based e-portfolio system and that of those who have out-of-class reading practice without the e-portfolio system?
2. What are the students' attitudes towards the effectiveness of the web-based e-portfolio system with regards to the different aspects of the system such as content of the system, peer-feedback, and post-reading activities?

3. Do the determinants of the self-determination theory (SDT, i.e., perceived competence, perceived autonomy, and perceived relatedness) predict Japanese EFL students' intention to continue OCLL using the web-based e-portfolio system and their actual achievements?

## **5.2. Conclusions**

This study began with the explanation of a newly developed web-based e-portfolio system to enhance Japanese undergraduate students' out-of-class EFL reading practice. The insufficient time of the general English classes, considering the large number of students, and lack of effective English collaboration outside of the classroom highlights the necessity of well-organized self-study modes to offer complementary language learning opportunities. In EFL contexts, students hardly access appropriate language learning environments beyond the formal classrooms, and teachers are suggested to encourage and support self-directed use of technology out of the classroom. Although there are several language learning tools and resources in the modern technological era, the findings of the present study indicated that it was not easy for the students to benefit from the available materials independently. Therefore, similar to this study, it is the instructors' foremost responsibility to guide the students through the path until they become lifelong language learners.

The findings of the first research question demonstrated that the web-based e-portfolio system could positively influence the experimental group students' reading proficiency. The students of the experimental group performed significantly better in their reading post-test at the end of the semester compared to both their own pre-test

scores as well as the final achievements of the comparison group students. Considering (1) the homogeneity of the experimental and comparison group students at the beginning of the semester and (2) the fact that both groups were provided with online reading materials, in conclusion, this improvement is attributed to the reading practice out of the classroom through the web-based e-portfolio system.

The web-based e-portfolio system in this study was mainly designed to support the students' particular need which in this case was reading proficiency improvement. However, despite focusing on the reading skill, the system was not aimed to the discrete teaching approach to a single language skill (Oxford, 2001), but it was rather based on the integration of the reading skill with the writing skill. Proper engagement with the reading materials and better learning could not be the product of passive reading without any interactions with the text (Peachey, 2013; Rivas, 1999). Therefore, an effective way to improve reading achievements was its integration with another skill such as writing through post-reading activities. Although assessment of the students' writing proficiency was not the purpose of this study and was not statistically measured, the observation of the students' works in their personal e-portfolios and their interactions on the website towards the end of the semester revealed positive changes in their writing proficiency as well.

The findings of the second research question demonstrated that generally the students held positive attitudes towards the use of the web-based e-portfolio system to practice reading beyond the classroom. The extracted themes from the interview data indicated some central issues. Firstly, the students emphasized on the importance of adequate instruction and support for using a new learning technology at the beginning stages. To put it differently, sufficient instruction could possibly ensure that the

students would be less engaged with the technological tool and concentrated more on the content and language learning. Secondly, it was argued that the biggest barrier to the students' OCLL was their lack of information about the available technologies and materials that are likely to be appropriate for language learning. However, considering the comparison group students' access to the same materials in the present study, there is no doubt that it was the developed OCLL context that resulted in the students' significant progress. Thirdly, it was revealed that the students considered peer-feedback as the most challenging and less useful aspect of OCLL in the e-portfolio system. The main reason figured out for this finding was the students' lack of trust in their own and peers' comments. The students tried to point out the possible errors in their peers' assignments and tried to provide corrections as well as they could. However, it was indicated that they could not perceive this effort effective which reflected their tendency towards teacher-centered educational contexts (Hirata, 2011). Although one of the main concerns of the implemented e-portfolio system was to prepare the students to move from the teacher-supported environments to more personalized environments beyond the actual classroom, students were still more willing to receive the approval or disapproval of their assignments from their teachers, not from their classmates. Finally, it was indicated that the majority of the students intended to continue using the web-based e-portfolio system because of their observable TOEFL ITP<sup>®</sup> score progress.

Furthermore, it is worth stressing that in the changing world of technology the ultimate goal should not be just implementing various learning technologies in education, but enhancing the students' intention to continue using technology for learning. Therefore, the third research question of this study focused on finding

motivational factors affecting the students' intention to continue using technology for OCLL using the framework of SDT. The results of the final structural model of the study indicated meaningful relationships between the variables of SDT, and OCLL intention and the students' actual achievements. It demonstrated the importance of focusing on the motivational factors to increase learning intention in technology-enhanced OCLL contexts. The findings of the path analysis contribute to researchers' and teachers' understanding of Japanese EFL students' perceptions about the prominence of their psychological needs for competence, autonomy and relatedness, among which competence is the first and autonomy is the second highly valued need influencing both their intention and final achievements. Although perceived relatedness was also an influential factor on the students' intention, contrary to my expectations, it had no significant effect on the students' actual OCLL achievements. This finding can be attributed to three reasons. First, the strong individual nature of e-portfolio, even though it was adapted to fit a collaborative environment. Second, the students' same level of language proficiency. Third, the students' preference for teacher-supported environments to peer-supported ones. Moreover, the results of the interview data in the first study revealed that the students did not hold positive attitudes towards the peer-supported feature of the e-portfolio system. Therefore, it is assumed that the third reason may possibly be the dominant cause of the insignificant relationship between perceived relatedness and students' actual achievements on the system.



### **5.3. Pedagogical Implications**

This study yields a number of pedagogical implications for EFL researchers, teachers, and instructors engaged in technology-based domains and concerned with language learning beyond the classroom.

In general, the findings of the present study supported the importance of self-study modes as one of the essential modes of blended learning environments. Considering the unlimited numbers of research on language learning inside the classroom, researchers now need to shift towards OCLL and bridge the existing gap in language learning literature by conducting more studies on language learning beyond the actual classrooms. The findings of this study revealed the validity of SDT to explain students' intention to continue OCLL, therefore, researchers may take advantage of the findings and construct other studies based on the framework of this theory in technology-enhanced OCLL domains.

Moreover, the overall findings demonstrated Japanese students' reluctance towards peer-supported learning. Consequently, researchers dealing with Japanese students' language learning should spend more time and effort to investigate appropriate ways to improve students' perceptions towards peer-supported learning. It is of crucial importance to help the students to shift from being exclusively dependent on their teachers to being more collaborative with their friends. Finally, as stated by Alawdat (2013), even though teachers and learners may use e-portfolios for several purposes such as language development, goal development, assessment or teaching, some researchers are still uncertain about the effectiveness of e-portfolios. Thus, it is hoped that the findings of the present study will add to the effectiveness of e-portfolios as a language learning tool.

The findings has also some implications for EFL teachers and instructors. Teachers and instructors looking for the improvement of the quality of their blended learning environments need to incorporate the third learning mode, which is a self-study mode beyond the classroom, into their teaching curriculums. In the present study, whereas both the experimental and comparison groups were provided with the out-of-class reading practice resources, only the experimental group showed a significant progress. Consequently, it is certain that introducing the available resources does not automatically guarantee language learning beyond the classroom and that it is essential to develop a well-organized OCLL mode in addition to the two modes inside the classroom.

Furthermore, EFL teachers and instructors who are concerned with implementing technological tools into their teaching contexts should be aware of the importance of the adequate instruction and simplicity of the tools. As the results of the first and second study demonstrated, the students emphasized their need for teachers' support at the primary stages to enable them to master the usage of the tool. This need was also illustrated with the high degree of coefficient of perceived competent in the final model. In general, this study showed that teachers and instructors can implement learning technologies in a way that fulfills students' motivational needs, and as a result they can maximize the potential usage of the technology. The significant effect of perceived competence in the model revealed that teachers and instructors may increase the usage of learning technologies by decreasing their complexity and providing sufficient instructions. Not necessarily all the highly-designed technology-enhanced learning environments result in the continual lifelong learning. Linguistically, there is a particular pattern in Japanese known as the volitional form that specifically describes

an intentional action. This pattern, in which the infinitive form of a verb 使う (to use) changes to the volitional form 使おう (to be willing to use) indicates the speakers' intention and desire to set out doing an action. Thus, we hope that the development of technology-enhanced learning environments would be in a way to help students reach the state of constant use of the volitional form, even after the course is over and they are no longer connected to a specific learning community.

Another important implication for EFL teachers and instructors working with Japanese students may be related to the students' idea about the role of the teacher inside and outside of the classroom. As the findings of the two studies indicated, the students were not satisfied with peer-supported learning, and they mainly valued teacher-supported environments. Therefore, teachers should attend to encourage the students to practice collaborative (pair) work inside the classroom in which the teacher is in the margins rather than the center, so that the students can be prepared to rely on their peers and value their comments outside of the classroom as well.

Lastly, this research as a practical study using e-portfolio tried to overcome the individual nature of e-portfolio by incorporating it into a collaborative environment. Thus, it is hoped that EFL teachers and instructors interested in implementing e-portfolios would be encouraged to develop similar interactive systems to enhance the students' OCLL. Moreover, the use of e-portfolio enabled the integration of reading skill with writing skill. Since the students usually practice the receptive skills (i.e., reading and listening) outside of classroom and they pay less attention to the productive skills (i.e., writing and speaking), the use of technological tools like e-portfolios will help teachers and students enlarge the practice of productive skills in the OCLL contexts as well.

#### **5.4. Limitations and Suggestions for Further Research**

Although the present study as one of its major contributions aimed to stress the importance of OCLL contexts, due to the students' need in this study, the reading skill was the center of the practice and evaluation. However, the design of the web-based e-portfolio system brings no restrictions to the language skills and other studies may be conducted using a similar system for other skills or the integration of all the skills.

The present study was conducted in the general English classes at university and it caused restrictions in terms of the length of the period of the study which lasted over a semester (i.e., around 15 weeks). However, it is suggested that e-portfolios will be more effective in longitudinal studies (Chang, Tseng, Liang, & Chen, 2013; Chau & Cheng, 2010; Barret, 2007). Therefore, other researchers who look for more comprehensive results may implement e-portfolios over longer periods of time and continue assessing the students' independent learning in their own personal learning environments (PLEs) after the course is over.

The use of a specific technological tool in one study such as the use of the developed web-based e-portfolio system in this study limits the generalizability of the findings to other settings. Thus further research can address the importance of OCLL by implementation of other digital tools to develop PLEs such as Wikis, Blogs and Facebook (Reinders, 2014).

The data of this study were collected from Japanese undergraduate students at Tohoku University, and due to the strong effect of cultural and educational beliefs on the learners' motivation (Gardner, 2010), the same model using the framework of SDT can be further tested in other countries with different cultural and educational backgrounds. Moreover, in this study, only the three main motivational determinants

were used as the constructs of the model, but other studies may be conducted that will extend the model with other motivational variables.

In the studies that develop a structural model the number of the participants is an influential factor on the results. Although the number of the participants and the variables fit the rule of thumb for performing a structural equation model (Hair et al., 2010), a larger sample size may result in more generalizable outcomes.

In this study, the students' achievements on the web-based e-portfolio system were measured by the number of the students' e-portfolio files and their interactions on the systems website. Though this strategy was appropriate for the purpose of this study, it is suggested that other studies may be conducted using more rigid measurements of the students' actual usage of the system.

Finally, even though the qualitative phase of the first study was merely a complementary section to the results of the quantitative phase, it could bring about more in depth results if the interviews were conducted in the students' mother tongue (i.e., in Japanese).

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<http://dx.doi.org/10.1016/j.compedu.2015.10.012>

# Appendices

## **Appendix A**

### **Semi-structured interview questions (study 1):**

- 1) How do you feel about the e-portfolio system? (Easy/Difficult; Useful/Useless)
- 2) Which part of the system did you find the most useful? (Using online resources, post-reading activities, feedback, etc.) Why?
- 3) Which part of the system did you find less useful? (Using online resources, post-reading activities, feedback, etc.) Why?
- 4) Which part of the system did you find the most challenging? (Using online resources, post-reading activities, feedback, etc.) Why?
- 5) Do you feel comfortable using ICT for language learning?
- 6) Do you like to continue using the e-portfolio system? Why?

## Appendix B

A sample of the instructor' reflection board, Week 4

Dear all,

Looking through your interesting e-portfolios and comments, I found something very **important** to mention.

One of the tasks that almost all of you do after reading a text is writing a summary of the text.

I noticed that some of you are good at writing summaries as **you first understand the text well and then write its summary**, but some of you still have difficulties, and your counterparts always criticize your summaries for being too short or too long.

I have also seen some comments stating that **the summary can't be understood**, since it is not written well.

**You just complain!!! But you don't try to help your friends learn how to write summaries properly**, therefore, I decided to find some supportive materials on the internet to help you all write more understandable and acceptable summaries.

**Writing summaries of the passages is one of the most helpful activities to improve reading comprehension skill.**

I hope you can find these websites useful and improve your summary writing.

\*\*\*This website is wonderful to improve your academic writing skill as well. There is also a supportive video including tips for writing summaries.

[Guidelines for writing a summary](#)

(<http://academics.smcvt.edu/cbauer-ramazani/AEP/EN104/summary.htm>)

\*These two websites can give you a brief overview of how to write summaries.

[How to write a summary in English](#)

(<http://www.english-at-home.com/business/how-to-write-a-summary/>)

[How to write a summary in English 2](#)

(<https://www.englisch-hilfen.de/en/words/summary.htm>)

Good Luck :-))

## Appendix C

Interpretation of the Cambridge English language test scores according to CEFR

Scores	Proper English Proficiency Tests	Proficiency Level
<b>6 to 10</b>	<u>Cambridge English: Key (KET)</u>	A2
<b>11 to 12</b>	<u>Cambridge English: Key (KET)</u> or <u>Cambridge English: Preliminary (PET)</u>	A2 or B1
<b>13 to 15</b>	<u>Cambridge English: Preliminary (PET)</u>	B1
<b>16 to 17</b>	<u>Cambridge English: Preliminary (PET)</u> or <u>Cambridge English: First (FCE)</u>	B1 or B2
<b>18 to 19</b>	<u>Cambridge English: First (FCE)</u>	B2
<b>20 to 21</b>	<u>Cambridge English: First (FCE)</u> or <u>Cambridge English: Advanced (CAE)</u>	B2 or C1
<b>22</b>	<u>Cambridge English: Advanced (CAE)</u> or <u>Cambridge English: Proficiency (CPE)</u>	C1 or C2
<b>23 to 25</b>	<u>Cambridge English: Proficiency (CPE)</u>	C2

## Appendix D

### Weekly self-assessment sheet

	<b>Score</b> <b>Rubric</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Number of reading texts	I couldn't read anything	I could read just one text	I could read two texts	I could read three texts
2	Number of tasks	I just read and didn't do any tasks	I read and did one task for each reading	I read and did two tasks for each reading	I read and did three tasks for each reading
3	Progress	I can't remember anything about the texts now	I just learnt some new words but I can't talk about the texts	I could learn some new words and I can talk about some parts of the texts	I learnt all the new words and I can talk about the texts completely
4	Choice of the text	I can't easily find online text.	I can hardly find texts proper for my level	I can just find a few proper texts for my level	I can easily find text proper for my level
5	Drive and website management	I can't easily access my drive and upload files	I can access my drive but have difficulty uploading files	I can manage my e- portfolio but I have problem with the class website.	I can manage my portfolio and class website well.
6	Feedback and comments	I didn't comment on my friend's portfolio	I didn't give a good comment on my friend's portfolio	I commented on my friends portfolio	I commented on my friend's portfolio and received reply.
7	Overall achievement	I can't manage studying and learning on my own out of the classroom	I can manage studying and learning on my own but I have difficulties	I can easily manage studying and learning on my own, but I don't enjoy it	I can manage studying and learning on my own well, and I enjoy it
8	Scores				
				Total Score .....	

Individual goal setting and scoresheet

<b>Week</b>	<b>Score</b>	<b>What should be done for the next week to improve my score?</b>
<b>1</b>		
<b>2</b>		
<b>3</b>		
<b>4</b>		
<b>5</b>		
<b>6</b>		
<b>7</b>		
<b>8</b>		
<b>9</b>		
<b>10</b>		
<b>11</b>		
<b>12</b>		
<b>13</b>		
<b>14</b>		
<b>15</b>		



## Appendix E

Group A webpage (links to the group A students' personal pages on the system)

**OCLL (E-portfolio2015B2a)**

Search this site

[Home](#)

- Instructional PowerPoint
- Instructor's reflection board
- Language proficiency/level
- Reading materials
- Self-assessment

[Portfolios](#)

- Group A**
- Group B
- Group C
- Group D
- Sample portfolio
- Sitemap

[Portfolios >](#)

### Group A


**Can you find your name here ???!!!**

- If YES**, it means you are a member of [Group A](#), and your counterpart is a **person with the same number in [Group B](#)**.
- If NO**, please look for your name in the other Groups :-))

Subpages (19): [Student 10](#) [Student 11](#) [Student 12](#) [Student 13](#) [Student 14](#) [Student 15](#) [Student 16](#) [Student 17](#) [Student 18](#) [Student 19](#) [Student 1](#) [Student 2](#) [Student 3](#) [Student 4](#) [Student 5](#) [Student 6](#) [Student 7](#) [Student 8](#) [Student 9](#)

[Add files](#)

**Comments**

 **Somayeh Fathali**

[Add a comment](#)

A sample of a students' personal webpage on the system

**OCLL (E-portfolio2015B2a)**

Search this site

Portfolios > Group A >

**Student 3: Student Full Name**

**'Student Name' e-portfolio**

[Link to the student's Google Drive](#)

[Add files](#)

**Comments**

**Somayeh Fathali** Add a comment

Jan 8, 2016

I want to say about two things.

1. In your summary, the phrase "the cool weather despite summer" is not correct because "despite summer" modifies the whole sentence. You should write the cool summer.
2. In your summary, the last sentence includes two mistakes. You should be careful for verbs themselves, and at the same time, words around verbs.

I think you should do at least two tasks if you are not busy!

Reply

Dec 28, 2015

I am very sorry for being late for making a comment for 10 week. I will write down 3 things I have noticed.

1st Reading

1. In your "interesting grammatical point", you use the word "often", but I think you should use "many times" because the former indicates how often you do something in a certain period such as a day or a week, and the latter how many times you do.

2nd Reading

1. You wrote the sentence "They says they are afraid that someone hacks their personal information". Of course, you have to change the verb form "says". Moreover, I think that you may write "will hack", instead of "hacks" because that matter probably remains to be happened.
2. When you put a complex sentence after the verb which the word "that" follows, like "know" or "realize", you had better not omit it.

Reply

Dec 18, 2015

▼ Home

- Instructional PowerPoint
- Instructor's reflection board
- Language proficiency level
- Reading materials
- Self-assessment

▼ Portfolios

- Group A
- Group B
- Group C
- Group D
- Sample portfolio

Sitemap

## Appendix F

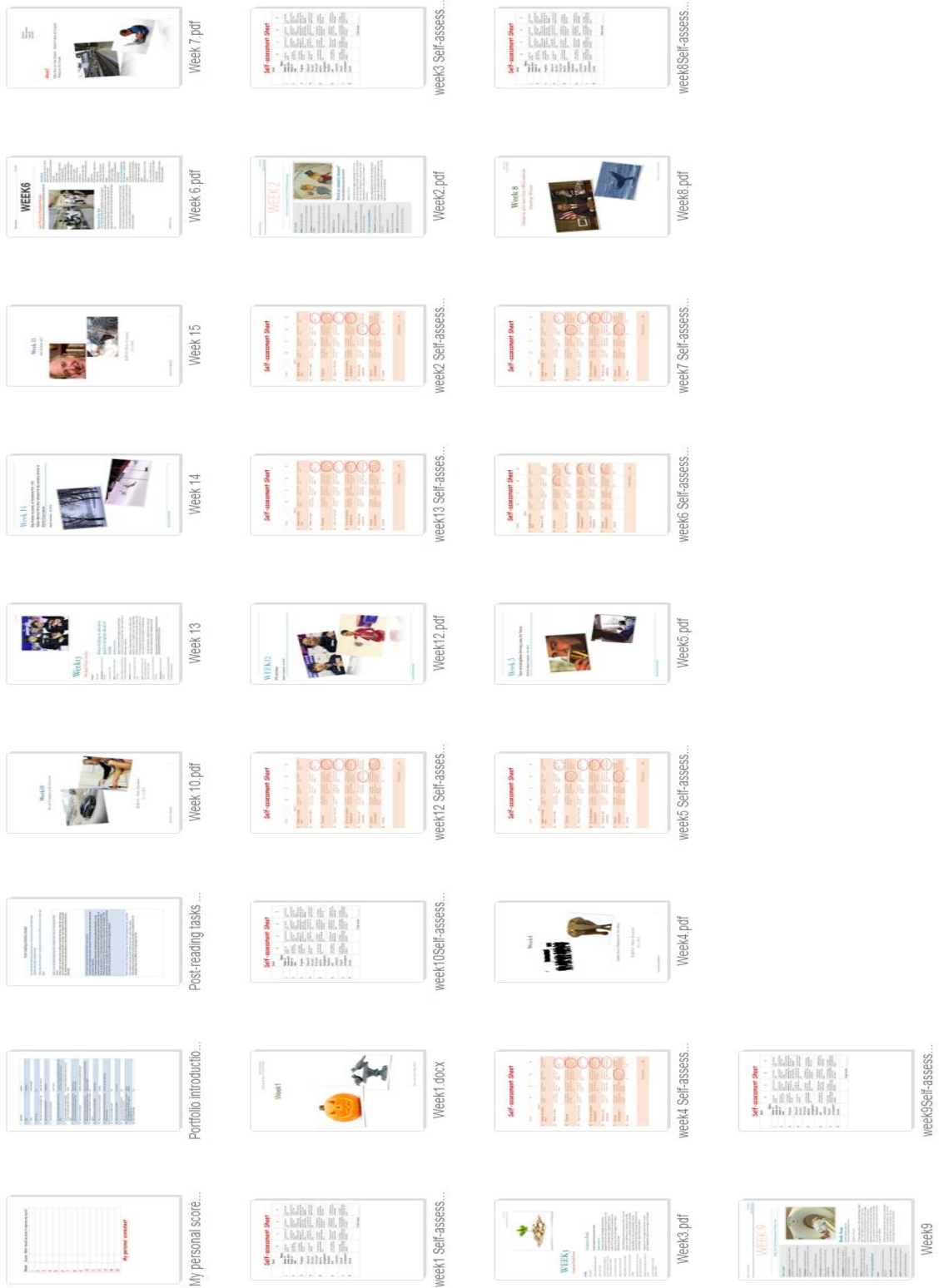
Personal introduction form according to the European Language Portfolio (ELP)

	Questions	Answers
1	Date:	
2	Name:	
3	Field of study:	For example, Mechanical engineering, ...
4	When did you first start learning English? *age	when I was ... years old
5	Where did you start learning English?	Kindergarten/ school/ Language institute/ ...
6	How did you start learning English?	With a teacher/ Self-study/ With a family member/ travelling abroad/...
7	Did you continue studying English from that time? Why?	Yes/no, Because ....
8	Have you ever travelled to an English speaking country? (If yes, please explain where and for how long)	
9	How often do you practice English in a week? And how long? (Excluding university English classes)	..... times a week, each time ..... minutes/hours
10	How do you practice English?	English language institute/ reading/ watching films/ ....
11	Have you ever had any interesting experience learning and practicing English? (Explain it please)	
12	Do you have any English certificates? If yes, explain about it please.	

13	What do you like the most about English?	Reading English books/ Writing reports and essays/Speaking with native speakers/ Listening to music/ Watching films/...
14	What do you need the most in learning English?	Writing/ Reading/ Speaking/Listening/ Grammar/ Vocabulary/...
15	Is there anyone else in your family who can speak English well? (Who?)	
16	Do you have any native English speaker friends?	
17	Where do you mostly use English?	At home/ At university/ Friend gatherings, ...
18	When your level was indicated through the proficiency test, please write it here.	A2/ A2-B1/B1/B1-B2/B2/ B2-C1/C1/C2
19	Do you know any other languages? ( If yes, please write the language and your level: beginner/ intermediate/ advance)	

# Appendix G

Samples of the content of the students' e-portfolios in Google Drive





My personal score...



Week1 docx



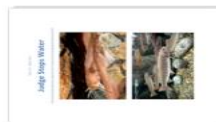
week10-1.docx



week10-2.docx



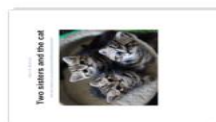
week12-1.docx



week12-2.docx



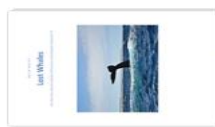
week13-1.docx



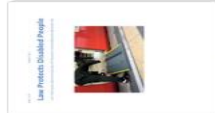
week13-2.docx



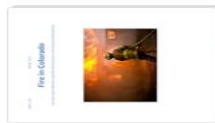
week14-1.docx



week14-2.docx



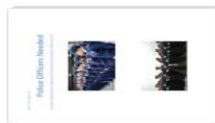
week15-1.docx



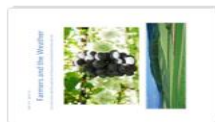
week15-2.docx



week2.docx



week3-1.docx



WEEK3-2.docx



week3-3.docx



Week4-1.docx



week4-2.docx



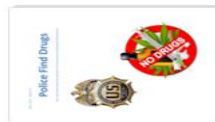
week5-1.docx



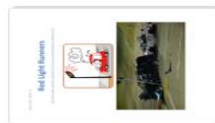
week5-2.docx



week6-1.docx



week6-2.docx



week7-1.docx



week7-2.docx



week8-1.docx



week8-2.docx



week9-1.docx



week9-2.docx



英語2-イントロ.docx

My personal score...

My personal score...

Portfolio introductory...

Portfolio introductory...

week 10 Self-assesses...

week 10 Self-assesses...

week 10.docx

week 10.docx

week 11 Self-assesses...

week 11 Self-assesses...

week 11.docx

week 11.docx

week 12 Self-assesses...

week 12 Self-assesses...

week 12.docx

week 12.docx

week 13 Self-assesses...

week 13 Self-assesses...

week 13.docx

week 13.docx

week 14 Self-assesses...

week 14 Self-assesses...

week 14.docx

week 14.docx

week 15 Self-assesses...

week 15 Self-assesses...

week 15.docx

week 15.docx

week 1 Self-assesses...

week 1 Self-assesses...

week 1.docx

week 1.docx

week 2 Self-assesses...

week 2 Self-assesses...

week 2.docx

week 2.docx

week 3 Self-assesses...

week 3 Self-assesses...

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week 4 Self-assesses...

week 4 Self-assesses...

week 4.docx

week 4.docx

week 5 Self-assesses...

week 5 Self-assesses...

week 6.docx

week 6.docx

week 6 Self-assesses...

week 6 Self-assesses...

week 6.docx

week 6.docx

week 7 Self-assesses...

week 7 Self-assesses...

week 7.docx

week 7.docx

week 8 Self-assesses...

week 8 Self-assesses...

week 8.docx

week 8.docx

week 9 Self-assesses...

week 9 Self-assesses...

week 9.docx

week 9.docx

## Appendix H

### Online questionnaire items (study 2)

At the beginning of the questionnaire it was explained that the questionnaire focused on their OCLL using technology (e.g., e-portfolio system)

Item	Question
PComp_1	I think I was pretty good at learning English beyond the classroom using technology
PComp_2	After using technology for language learning for a while, I felt pretty competent
PComp_3	I think I am pretty skilled at using technology for independent language learning
PComp_4	I think I am satisfied with my performance at out-of-class language learning using technology
*PComp_5	I think I cannot use technology for language learning very well
PAut_1	I felt a certain freedom of action in learning English beyond the classroom using technology
PAut_2	I feel I did technology-supported OCLL because I wanted to do
PAut_3	I could decide which activities I wanted to practice
PAut_4	I had some choice in what I wanted to do
PRel_1	I felt that other classmates had similar goals to mine in learning English beyond the classroom using technology
PRel_2	I felt that other members of the e-portfolio system helped me to learn
PRel_3	I felt a sense of connection to the other members of e-portfolio system
PRel_4	I felt that other members of the e-portfolio system cared about each other
PRel_5	I felt that I could rely on other classmates to support me to learn English beyond the classroom
Int_1	I intend to continue learning English beyond the classroom using technology (e.g., e-portfolio system)
Int_2	I predict I would use technology (e.g., e-portfolio system) if I have the course again
Int_3	I plan to use technology (e.g., e-portfolio system) to learn English in the future